



DRAFT ENVIRONMENTAL IMPACT REPORT

San Francisco Westside Recycled Water Project

PLANNING DEPARTMENT
CASE NO. 2008.0091E

STATE CLEARINGHOUSE NO. 2008052133

Draft EIR Publication Date:	March 18, 2015
Draft EIR Public Hearing Date:	April 23, 2015
Draft EIR Public Comment Period:	March 18, 2015 to May 4, 2015



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SAN FRANCISCO PLANNING DEPARTMENT

DATE: March 18, 2015

TO: Distribution List for the San Francisco Westside
Recycled Water Project Draft EIR

FROM: Sarah B. Jones, Environmental Review Officer

SUBJECT: Request for the Final Environmental Impact Report for the
San Francisco Westside Recycled Water Project
(Planning Department File No. 2008.0091E)

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This is the Draft of the Environmental Impact Report (EIR) for the San Francisco Westside Recycled Water Project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Responses to Comments," which will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Responses to Comments document, along with notice of the date reserved for certification; others may receive a copy of the Responses to Comments and notice by request or by visiting our office. This Draft EIR together with the Responses to Comments document will be considered by the Planning Commission in an advertised public meeting and will be certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Responses to Comments document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one document, rather than two. Therefore, if you receive a copy of the Responses to Comments document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Responses to Comments have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR [in Adobe Acrobat format on a CD] to private individuals only if they request them. Therefore, if you would like a copy of the Final EIR, please fill out and mail the postcard provided inside the back cover to the Environmental Planning division of the Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.

SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT

Draft Environmental Impact Report

Planning Department Case No. 2008.0091E
State Clearinghouse No. 2008052133

March 2015

City and County of San Francisco
San Francisco Planning Department

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ACRONYMS, ABBREVIATIONS, AND GLOSSARY

Acronyms and Abbreviations

2010 CAP	Bay Area 2010 Clean Air Plan
µg/L	Microgram per Liter
µg/m ³	Microgram per Cubic Meter
ABAG	Association of Bay Area Governments
ADRP	Archeological Data Recovery Plan
AMP	Archaeological monitoring plan
APE	Area of Potential Effect
B20	20 Percent Biodiesel
B.P.	Before Present
BAC	Bioactivated Carbon
BAAQMD	Bay Area Air Quality Management District
BAWSCA	Bay Area Water Supply and Conservation Agency
Bicycle Plan	San Francisco Bicycle Plan
Blue Book	Regulations for Working in San Francisco Streets
BMPs	Best Management Practices
BOD	Biochemical Oxygen Demand
Brine	Reverse Osmosis Concentrate
C-APE	CEQA-Area of Potential Effect
CA ARNG	California Army National Guard
CA DPR	California Department of Parks and Recreation
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation

CAP	Clean Air Plan
CARB	California Air Resources Board
CBOD	Carbonaceous Biochemical Oxygen Demand
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCO	San Francisco Clean Construction Ordinance
CCR	California Code of Regulations
CCSF	City and County of San Francisco
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
dB	Decibel
dBA	A-Weighted Decibel
DBI	Department of Building Inspector
DPH	Department of Public Health
DPM	Diesel Particulate Matter
effluent	Treated Wastewater
EIR	Environment Impact Report
EP	San Francisco Planning Department Environmental Planning section
ERO	Environmental Review Officer
ESA	Environmental Science Associates
FARR	Final Archaeological Resources Report
General Plan	San Francisco General Plan
HI	hazard Index
HVAC	heat, ventilation, and air conditioning
I-280	Interstate 280
JRP	JRP Historical Consulting, LLC
Landmarks Board	Landmarks Preservation Advisory Board
L _{dn}	Day-Night Noise Level
LEED	Leadership in Energy and Environmental Design
L _{eq}	Steady-State Energy Level

Lincoln Park	Lincoln Park/Lincoln Park Golf Course
LOS	Level of Service
LSM	Less than Significant with Mitigation
Master Plan	Golden Gate Park Master Plan
MEI	Maximally Exposed Individual
mgd	million gallons per day
mg/L	milligram per liter
MF	Microfiltration/Ultrafiltration
mL	milliliters
MLD	Most Likely Descendant
MPN	Most Probably Number
MTC	Metropolitan Transportation Commission
MTBE	Methyl Tertiary-Butyl Ether
MUNI	San Francisco Municipal Railway
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NOP	Notice of Preparation
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NSR	New Source Review
NWIC	Northwest Information Center
Panhandle	Golden Gate Panhandle
PAWS	Project Alternatives Workshop Series
PEIR	Program Environmental Impact Report
PM	Particulate Matter
PM ₁₀	Particulate Matter, 10 microns or less in diameter
PM _{2.5}	Particulate Matter, 2.5 microns or less in diameter
ppm	parts per million
PRC	Public Resources Code
Project	San Francisco Westside Recycled Water Project

REL	Reference Exposure Level
RO	Reverse Osmosis
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SFBAAB	San Francisco Bay Area Air Basin
SFDPW	San Francisco Department of Public Works
SFMTA	San Francisco Municipal Transportation Agency
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation and Parks Department
SIL	Significant Impact Level
SNRAMP	Significant Natural Resource Areas Management Plan
SO ₂	Sulfur Dioxide
SPEAK	Sunset-Parkside Action Committee
SR	State Route
SVP	Society of Vertebrate Paleontology
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TASC	Transportation Advisory Staff Committee
TEP	Transit Effectiveness Project
TPZ	Tree Protection Zone
TST	Test of Significant Toxicity
TUc	Toxicity Unit Chronic
U.S. EPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UV	Ultraviolet
WPA	Work's Progress Administration
WPCP	Water Pollution Control Plant
WSIP	Water System Improvement Program
Zoo	San Francisco Zoo
Zoo Road	Internal Zoo Access Road

Glossary of Terms

Acre-foot. An acre-foot is the quantity of water required to cover 1 acre to a depth of 1 foot. Equal to 1,233.5 cubic meters (43,560 cubic feet).

A-weighted decibel (dBA). Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called “A-weighting,” expressed as “dBA.” The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies.

Beneficial use. Those uses of water as defined in the State of California Water Code (Chapter 10 of Part 2 of Division 2), including but not limited to agricultural, domestic, municipal, industrial, power generation, fish and wildlife habitat, recreation, and mining.

Biochemical oxygen demand (BOD). The amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material present in a given water sample at a certain temperature over a specific time period. The term also refers to a chemical procedure for determining this amount.

CEQA (California Environmental Quality Act). State law that requires state, local, and other non-federal agencies in California to evaluate the environmental implications of their actions.

Colluvium. A loose deposit of rock debris accumulated through the action of gravity at the base of a cliff or slope.

Community Noise Equivalent Level (CNEL). Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dBA increment be added to “quiet time” noise levels to form a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). CNEL adds a 5-dBA “penalty” during the evening hours (7:00 p.m. to 10:00 p.m.) and a 10-dBA penalty during the night hours (10:00 p.m. to 7:00 a.m.).

Cultural resource. A fragile and nonrenewable remnant of human activity that is valued by or significantly representative of a culture or that contains significant information about a culture. Cultural resources encompass archeological, traditional, and built environment resources, including landscapes or districts, sites, buildings, structures, objects, or cultural practices that are usually greater than 50 years of age and possess architectural, historic, scientific, or other technical value.

Cumulatively considerable. A CEQA term used to indicate whether or not a cumulative impact is significant.

CT value. The product of total chlorine residual and modal contact time measured at the same point.

Day-night noise level (L_{dn}). Another 24-hour noise descriptor, called the day-night noise level (L_{dn}), is similar to CNEL. While both add a 10-dBA penalty to all nighttime noise events between 10:00 p.m. and 7:00 a.m., L_{dn} does not add the evening 5-dBA penalty. In practice, L_{dn} and CNEL usually differ by less than 1 dBA at any given location for transportation noise sources.

Dewater. To remove water from a trench or other excavation.

Discharge. The flow of surface water in a stream or canal or the outflow of groundwater from a flowing artesian well, ditch, or spring. Also refers to the discharge of liquid effluent from a facility, or to chemical emissions into the air through designated venting mechanisms.

Disturbance. Any event or series of events that disrupt ecosystem, community, or population structure and alter the physical environment.

EIR (environmental impact report). A report required by the California Environmental Quality Act to describe the environmental impact of a proposed project.

EIR certification. EIR adoption by a governing agency that involves acceptance of the document as being complete and adequate according to the California Environmental Quality Act.

Gate Valve. A multipurpose bi-directional shutoff valve used for commercial and industrial applications.

Fugitive dust. “Fugitive” dust generally refers to the emission of fine soil particles that are released to the atmosphere from a construction site or agricultural field.

Holocene. A geological epoch that began 11,700 years ago and continues to the present.

Hydrology. The science that deals with the waters above and below land surfaces; their occurrence, circulation, and distribution, both in time and space; their biological, chemical, and physical properties; and their reaction with their environment, including their relation to living beings.

Irrigation water. Water of sufficiently quality that can be used for landscape irrigation.

L_{eq} . Time variations in noise exposure are typically expressed in terms of a steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement. L_{eq} (24) is the steady-state energy level measured over a 24-hour period.

Level of service (LOS). A qualitative description of a highway/road’s performance based on average delay per vehicle, vehicle density, or volume-to-capacity ratios. Levels of service range from LOS A, which indicates free-flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays.

Mitigation. One or all of the following: (1) Avoiding an impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying an impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action; and (5) compensating for an impact by replacing or providing substitute resources or environments.

Pleistocene. Epoch from 11,700 years B.P. to 2.5 million years B.P.

Potable water. Water of sufficiently high quality that can be consumed by humans; drinking water.

Primary effluent treatment. Removal of floating and settleable solids using physical operations such as screening and sedimentation.

Program Environmental Impact Report. One type of environmental review document identified under the California Environmental Quality Act that may be used to evaluate a plan or program that has multiple components (projects and actions) or to address a series of actions that are related.

Reasonable potential analysis. An evaluation conducted to identify pollutants in effluent that have the potential to exceed water quality criteria established in the Ocean Plan.

Regional Transit Screenlines. Identified corridors served by a grouping of transit lines.

Regional water system. The entire SFPUC water system starting at Hetch Hetchy Reservoir and ending in San Francisco; the regional system includes all facilities serving the SFPUC wholesale and retail customers, except for the retail customers in San Francisco and a few limited areas outside of San Francisco (e.g., Castlewood). The SFPUC regional water system consists of a complex network of facilities covering a geographic range of about 160 miles, from the Sierra Nevada on the east to San Francisco on the west. The regional water system crosses seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco. The regional water system includes over 280 miles of pipelines, over 60 miles of tunnels, 11 reservoirs, 5 pump stations, and 2 water treatment plants.

Residence time. In groundwater, the length of time water remains underground before it is extracted or discharged.

Secondary effluent treatment. Process that reduces suspended solids and biological oxygen demand in wastewater by approximately 90 percent.

Sensitive receptors. Persons that are sensitive or more vulnerable to effects of (i.e., that “receive”) excessive noise and/or poor air quality than the general population, usually analyzed in terms of land use types where such persons are typically located.

Soldier piles and lagging system. Includes concrete-encased beams in placed in drilled holes that extend below the bottom of the excavation. Timber lagging is placed between the beams to retain soil in the excavation sidewall as excavation proceeds.

Spoils. Excess soil remaining from an excavation after backfilling is completed.

Structural fill. Typically a screened earthen material used to create a strong, stable base for structural purposes.

Upland. Elevated areas lying above the level where water flows or where flooding occurs.

Vertical and horizontal mixing. Refers to air movement patterns. Limited vertical or horizontal mixing would limit dispersion of pollutants, resulting in a concentration of pollutants.

Wye. A fitting with three openings. The side inlet pipe enters at an angle other than 90 degrees.

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CHAPTER 1

Summary

1.1 Project Synopsis

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (project). The project includes the construction of a recycled water treatment plant that would be located at the SFPUC's Oceanside Water Pollution Control Plant (WPCP), and within a portion of the adjacent California Army National Guard site. Recycled water produced at this facility would be used in Golden Gate Park (including the Panhandle portion of the park and fill for Golden Gate Park Lakes), Lincoln Park Golf Course, and various areas of the Presidio, primarily for landscape irrigation. To deliver the water from Oceanside WPCP to the areas of use, a transmission pipeline would be constructed primarily along 36th Avenue between the proposed recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park. Transmission pipelines also would be constructed between the Central Reservoir and Lincoln Park and the Presidio, as well as adjacent to the Golden Gate Park Panhandle. Furthermore, the existing Central Reservoir and pump station in Golden Gate Park would be expanded to include the additional storage and pumping capacity. A new underground storage reservoir would also be constructed under the Oceanside WPCP facility.

Under the San Francisco Administrative Code, Chapter 31, the San Francisco Planning Department's Environmental Planning section (EP) is responsible for conducting the environmental review of all City and County of San Francisco (CCSF) projects pursuant to the requirements of the California Environmental Quality Act (CEQA). The Planning Department is the lead agency responsible for preparing this Environmental Impact Report (EIR) in compliance with CEQA, and the SFPUC is the project sponsor proposing to implement the project. This EIR is being prepared for the public and decision-makers to disclose the potential physical impacts of the project so that an informed judgment can be made about the project's environmental consequences.

1.2 Overview of SFPUC Regional Water System

This overview of the SFPUC regional water system provides background information and context for the project. The discussion includes a description of the existing water system and the SFPUC's Water System Improvement Program (WSIP).

1.2.1 Existing Regional Water System

The CCSF, through the SFPUC, owns and operates a regional water system that extends from the Sierra Nevada to San Francisco and serves retail and wholesale customers in San Francisco, San Mateo, Santa Clara, Alameda, and Tuolumne Counties. The regional water system consists of water conveyance,

treatment, and distribution facilities, and delivers water to retail and wholesale customers. The regional system includes over 280 miles of pipelines, over 60 miles of tunnels, 11 reservoirs, 5 pump stations, and 2 water treatment plants. The SFPUC currently delivers an annual average of about 265 million gallons per day (mgd) of water to its customers. The source of the water supply is a combination of local supplies from streamflow and runoff in the Alameda Creek watershed and in the San Mateo Creek and Pilarcitos Creek watersheds (referred to together as the Peninsula watersheds), augmented with imported supplies from the Tuolumne River watershed. Local watersheds provide about 15 percent of total supplies, and the Tuolumne River provides the remaining 85 percent.

The SFPUC serves about one-third of its water supplies directly to retail customers, primarily in San Francisco, and about two-thirds of its water supplies to wholesale customers by contractual agreement. The wholesale customers are largely represented by the Bay Area Water Supply and Conservation Agency, which consists of 26 member agencies in Alameda, San Mateo, and Santa Clara Counties.¹ Some of these wholesale customers have other sources of water in addition to what they receive from the SFPUC, while others rely completely on the SFPUC for supply.

1.2.2 SFPUC Water System Improvement Program

In October 2008, the SFPUC adopted a systemwide program, the WSIP (also known as the “Phased WSIP Variant”) (SFPUC Resolution 08-200). The WSIP is a comprehensive program designed to improve the regional system with respect to water quality, seismic response, and water delivery based on a planning horizon through the year 2030, and to improve the regional system with respect to water supply to meet water delivery needs in the SFPUC service area through the year 2018. The WSIP consists of a water supply strategy and modifications to system operations as well as construction of a series of facility improvement projects in seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco. The project is one of the WSIP facility improvement projects.

The overall goals of the WSIP are to maintain high-quality water; reduce vulnerability to earthquakes; increase delivery reliability and improve the ability to maintain the system; meet customer water supply needs; enhance sustainability in all system activities; and achieve a cost-effective, fully operational system (see Table 2-1 in Chapter 2, Introduction and Background). To further these program goals, the WSIP also includes objectives that address system performance in the areas of water quality, seismic reliability, delivery reliability, and water supply.²

To address the potential environmental impacts of the WSIP in compliance with CEQA, the San Francisco Planning Department prepared a Program Environmental Impact Report (PEIR) on the proposed WSIP, which the San Francisco Planning Commission certified in October 2008.³ The PEIR evaluated the

¹ The Cordilleras Mutual Water Association is an additional wholesale customer that receives water from the SFPUC but is not a BAWSCA member. It is a small water association serving 18 single-family homes in San Mateo County.

² San Francisco Public Utilities Commission (SFPUC), SFPUC Resolution 08-0200, Water System Improvement Program California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations, October 2008.

³ San Francisco Planning Department, San Francisco Public Utilities Commission’s Water System Improvement Program, Final Program Environmental Impact Report, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008 (San Francisco Planning Commission Motion No. 17734). Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

environmental impacts of the WSIP water supply strategy and system operations at a project level of detail, and evaluated the environmental impacts of the WSIP facility improvement projects at a program level of detail. When the SFPUC approved the WSIP in 2008, it made CEQA Findings on the program, including a statement of overriding considerations and adoption of a mitigation monitoring and reporting program.⁴

This project-level EIR on the project tiers from the WSIP PEIR and also incorporates by reference the relevant analyses presented in the PEIR with respect to the WSIP's impacts and mitigation measures that apply to the project. The PEIR (State Clearinghouse No. 2005092026) is available for public review at the San Francisco Planning Department, 1650 Mission Street, San Francisco, CA 94103, and is on the Planning Department's website at <http://www.sfplanning.org>. CEQA permits tiering from a program-level EIR in order to allow agencies to broadly consider the environmental effects of a series of actions and/or policies, and then to provide a more detailed examination of a project's impacts in a subsequent project-level EIR. The project was defined as part of the WSIP and was analyzed in the PEIR as a WSIP facility improvement project. This project-level EIR provides more detailed information about the project, its impacts and project-specific mitigation measures, and alternatives to the project. This EIR summarizes and incorporates by reference the PEIR evaluation of the impacts associated with the WSIP water supply strategy and system operations, including the PEIR analysis and conclusions regarding impacts on the SFPUC's watersheds and the WSIP's growth-inducement impacts. The PEIR analysis of WSIP water supply and growth-inducement impacts accounted for the proposed project in sufficient detail, and no further evaluation of these aspects of the proposed project is required.

Description of the WSIP

The WSIP involves improvements to the regional system with respect to water quality, seismic response, and water delivery based on a planning horizon through the year 2030. The WSIP also includes phased implementation of a water supply strategy to meet projected water demand through the year 2018. The WSIP also includes full implementation of the proposed WSIP facility improvement projects to insure that the public health, seismic safety, and delivery reliability goals are achieved as soon as possible.⁵ Under the WSIP, the SFPUC established the year 2018 as an interim mid-term planning horizon for its water supply strategy. Thus, the SFPUC made a decision about a water supply strategy to serve its customers through 2018, and is deferring a decision regarding long-term water supply after 2018 and through 2030 until it undertakes further water supply planning and demand analysis.

The WSIP includes the following key program elements:

- Full implementation of all of the 17 proposed WSIP facility improvement projects described in the PEIR.
- Water supply delivery of 265 mgd (average annual target delivery) to regional water system customers through 2018, with water supplies originating from the Tuolumne, Alameda, and

⁴ San Francisco Public Utilities Commission (SFPUC), SFPUC Resolution 08-0200, Water System Improvement Program California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations, October 2008.

⁵ The size and design of the WSIP facility improvement projects are driven by the SFPUC's system performance objectives and would not change as a result of the water supply decision included as part of the WSIP (see SFPUC Resolution No. 08-0200).

Peninsula watersheds. This includes 184 mgd for the wholesale customers (including 9 mgd for the cities of San Jose and Santa Clara), and 81 mgd for the retail customers.

- Development of 20 mgd of conservation, recycled water and groundwater within the SFPUC service area (10 mgd in the retail service area and 10 mgd in the wholesale service area).
- Dry-year transfer from the Modesto and/or Turlock Irrigation Districts of about 2 mgd coupled with the Westside Groundwater Basin conjunctive-use project to meet the drought year goal of limiting rationing to no more than 20 percent on a systemwide basis.
- Reevaluation of 2030 demand projections, potential regional water system purchase requests, and water supply options by 2018, and a separate SFPUC decision in 2018 regarding regional water system water deliveries after 2018.
- Financial incentives to limit water sales to an annual average of 265 mgd from the watersheds.

Under the WSIP, the SFPUC will deliver to customers up to 265 mgd from the SFPUC watersheds on an average annual basis. While average annual deliveries from the SFPUC watersheds would be limited to 265 mgd, such that there would be no increase in diversions from the Tuolumne River to serve additional demand, there would be a small increase in average annual Tuolumne River diversions of about 2 mgd in order to meet delivery and drought reliability goals through 2018.

The SFPUC must maintain water deliveries to all its customers for the protection of public health and safety. Therefore, under the WSIP, the SFPUC will work with its customers to develop financial incentives to limit water sales to an average annual amount of 265 mgd from the watersheds through 2018. With the projected 20 mgd of conservation, recycled water and groundwater projects, the WSIP water supply strategy would meet average daily demand of 285 mgd in 2018.

As part of adoption of the WSIP, the SFPUC has committed to implementing the mitigation measures identified for the WSIP in the PEIR, including measures addressing impacts that may result from increases in deliveries from the SFPUC watersheds over the total average annual of 265 mgd in the event that conservation, recycled water, and groundwater projects are not completed prior to the increase in customer demand.⁶

WSIP Systemwide Operation Strategy

The WSIP also provides an operating strategy for the regional water system, which addresses the condition of the physical facilities and infrastructure while accounting for factors that affect the system including fluctuating customer demand, meteorological and hydrological conditions, facility and infrastructure capacity and maintenance requirements, and institutional parameters. The operating strategy addresses four components of system operation: water supply and storage, water quality, water delivery, and asset management.

Day-to-day operation of the regional water system under the WSIP is similar to prior operations, but provides for additional facility maintenance activities and improved emergency preparedness. This will allow the SFPUC to meet its WSIP objectives and provide for increased system reliability and additional

⁶ San Francisco Public Utilities Commission (SFPUC), SFPUC Resolution 08-0200, Water System Improvement Program California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations, October 2008.

flexibility for scheduling repairs and maintenance. The WSIP operations strategy also includes a multistage drought response program. Under the WSIP, regional water system operations continue to comply with all applicable institutional and planning requirements including complying with all water quality, environmental, and public safety regulations; maximizing the use of water from local watersheds; assigning a higher priority to water delivery over hydropower generation; and meeting all downstream flow requirements.

Summary of Impacts and Mitigation Measures Associated with the WSIP Water Supply and System Operations Strategy

The WSIP would result in changes in reservoir levels and associated changes in downstream flows in rivers and creeks in the three affected watersheds, potentially affecting groundwater, water quality, fisheries, and terrestrial biological resources. In the event that deliveries to customers exceed 265 mgd (average annual), streamflow changes in the Tuolumne River watershed could affect fisheries and terrestrial biological resources. In the Alameda Creek and Peninsula watersheds, the WSIP, which includes restoring the historical storage capacities of Calaveras and Lower Crystal Springs Reservoirs, could affect reservoir levels, downstream flows, fisheries, and terrestrial biological resources. In addition, the WSIP proposes to develop groundwater supplies in the North Westside Groundwater Basin as well as a conjunctive-use program in the South Westside Groundwater Basin.

The WSIP impacts identified in the PEIR that are potentially significant but mitigable, potentially significant and unavoidable, and significant and unavoidable are listed below. As set forth in the PEIR, the San Francisco Planning Department determined the environmental impacts on all resources not listed below would be less than significant and no mitigation measures for those impacts would be required (see WSIP PEIR Chapter 5, Environmental Setting and Impacts, for further discussion of the impact analysis on the WSIP's water supply strategy; see PEIR Chapter 6, Mitigation Measures, for a list of the mitigation measures associated with these impacts).

Potentially Significant but Mitigable WSIP Water Supply and System Operations Impacts

- **Fisheries Resources:** Tuolumne River (only when average annual deliveries from the watersheds exceed 265 mgd); Alameda Creek.
- **Terrestrial Biological Resources:** Tuolumne River (below La Grange Dam - only when average annual deliveries exceed 265 mgd; and impacts on alluvial features that support meadow and riparian habitat from O'Shaughnessy Dam to Don Pedro Reservoir); Calaveras Reservoir; Alameda Creek; Calaveras Creek; Upper and Lower Crystal Springs Reservoir.
- **Groundwater:** Pumping overdraft; change in water levels in Lake Merced and other surface water features; seawater intrusion due to decreased groundwater levels; contamination of drinking water.

Potentially Significant and Unavoidable WSIP Water Supply and System Operations Impacts

- **Fisheries:** Upper and Lower Crystal Springs Reservoir. Based on the best available information at that time, the PEIR made the conservative determination that the WSIP would result in potentially significant and unavoidable impact on fishery resources in Crystal Springs Reservoir related to inundation of spawning habitat upstream of the reservoir (see PEIR Chapter 5, Section 5.5.5, Impact 5.5.5-1). The project-level fisheries analysis in the EIR on the Lower Crystal Springs Dam

Improvements project modified certain PEIR impact determinations based upon more detailed site-specific data and analysis.⁷ Project-level conclusions supersede any contrary impact conclusions in the PEIR, and the project-level analysis determined that impacts on fishery resources due to inundation effects would be less than significant.

- **Growth inducement:** SFPUC service area.

Significant and Unavoidable WSIP Water Supply and System Operations Impacts

- **Streamflow:** Alameda Creek below Alameda Creek Diversion Dam. Based on the best available information at that time, the PEIR made the conservative determination that the WSIP would result in a significant and unavoidable impact related to flow along Alameda Creek below the Alameda Creek Diversion Dam (“Alameda Creek Hydrologic Impact”) (see PEIR Chapter 5, Section 5.4.1, Impact 5.4.1-2). The project-level analysis in the Calaveras Dam Replacement Project EIR modifies this PEIR impact determination to be less than significant based upon more detailed site-specific data and analysis.⁸ Project-level conclusions supersede any contrary impact conclusions in the PEIR.

Alternatives to the WSIP

The PEIR evaluated seven alternatives to the WSIP because of their apparent ability to meet most of the WSIP’s goals, their ability to reduce one or more of the significant impacts associated with program implementation, their potential feasibility, and their collective ability to provide a reasonable range of alternatives to foster informed decision-making and public participation. Analysis of the No Program Alternative was included as required by CEQA. The seven WSIP alternatives are summarized in Chapter 7, Alternatives, of this EIR; PEIR Chapters 9, CEQA Alternatives, and 14, Master Responses, respectively, present a more detailed summary of these alternatives and are incorporated into this EIR by reference.

1.3 Summary of Project Impacts and Mitigation Measures

This EIR analyzes the potential effects of the SFPUC San Francisco Westside Recycled Water Project, as determined in the Notice of Preparation (NOP) of an EIR, issued July 16, 2014 (Appendix A of this Draft Environmental Impact Report). The Initial Study attached to the NOP (also in Appendix A) found that the proposed project would have potentially significant effects in the areas of cultural and paleontological resources, transportation and circulation, noise, air quality, and hydrology and water quality. It also found that the project’s effects on other environmental resource areas either would not be significant or would be less-than-significant with mitigation, or that the project would have no impact.

Table 1-1 (found at the end of this chapter) summarizes all impacts identified for the proposed project addressed in the environmental review for this EIR, whether their level of significant was found to be no

⁷ San Francisco Planning Department, *San Francisco Public Utilities Commission’s Lower Crystal Springs Dam Improvements Project, Final Environmental Impact Report, Draft EIR Vol. 1 and Response To Comments*, File No. 2005.0161E, State Clearinghouse No. 2007012002, Certified October 7, 2010.

⁸ San Francisco Planning Department, *San Francisco Public Utilities Commission’s Calaveras Dam Replacement Project, Final Environmental Impact Report, Vol. 1, 3, 4*, File No. 2005.0161E, State Clearinghouse No. 2005102102, Certified January 27, 2011.

impact, less-than-significant impact, or significant. For any impacts found to be significant, corresponding mitigation measures are included and the level of significance after mitigation is indicated.

The Initial Study identified resource topics that were determined not to apply to the proposed project and topics where the project would have no impact, less-than-significant impact, or less-than-significant with mitigation. For any impacts identified as significant in the Initial Study, corresponding mitigation measures are included that would reduce these impacts to a less-than-significant level. These topics, summarized in **Table 1-2** (found at the end of this chapter), are not addressed in this EIR.

As discussed in Chapter 6, Section 6.1, Growth Inducing Impacts, the proposed project is one of the facility improvement projects that comprise the WSIP. Implementation of the WSIP would contribute to the growth-inducement potential of the WSIP and the associated indirect effects of growth. Insofar as the proposed project is a component of the WSIP, it would contribute to the WSIP's significant and unavoidable, and potentially significant and unavoidable water supply and growth-inducement impacts as identified in the WSIP PEIR⁹ and summarized Section 6.2.2, Significant and Unavoidable Effects of the WSIP.

1.4 Summary of Project Alternatives

This section describes the project alternatives that were selected and analyzed in accordance with CEQA Guidelines Section 15126.6(a). The alternatives to the proposed project selected for detailed analysis in this EIR are:

- Alternative A: No Project Alternative
- Alternative B: Project Design Alternative
- Alternative C: Reduced Project Alternative

Table 1-3 (found at the end of this chapter) provides a brief description of these alternatives and highlights how they differ from the proposed project. Since the alternatives are conceptual, the evaluation is based on the available information and reasonable assumptions about how each alternative would be implemented.

Table 1-3 also summarizes the environmental impacts of the selected alternatives compared to those of the proposed project. This table presents the significant impacts of the proposed project as well as less-than-significant impacts whose severity would be different under the project alternatives than under the proposed project. Table 1-3 does not include less-than-significant impacts of the proposed project that would have the same significance determination and/or impact severity as those of the project alternatives.

⁹ San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

1.4.1 Alternative A: No Project Alternative

In the event that the SFPUC does not approve the San Francisco Westside Recycled Water Project, the proposed recycled water treatment, storage, and distribution facilities would not be constructed and 1.6 mgd of recycled water would not be produced or delivered to customers to offset potable demand. Existing irrigation demand at Golden Gate Park, Lincoln Park, and the Presidio, as well as lake fill would continue to be met with existing potable sources and groundwater. The No Project Alternative would not meet any of the Project Objectives.

Implementation of the No Project Alternative would result in continuation of current conditions and would therefore avoid all construction-related impacts of the project because no treatment, storage, pumping, or distribution facilities would be constructed. Therefore, there would be no potential to encounter previously unrecorded and buried (or otherwise obscured) archaeological deposits, archaeological resources, human remains (Impacts CP-2; CP-4; CP-5), or legally-significant prehistoric deposits within the Colma formation at the Oceanside WPCP site (Impact CP-3); no construction activities resulting in fugitive dust or criteria pollutant emissions would occur (Impact AQ-2); and no construction-related effects or disturbance to special-status species including California red-legged frog, western pond turtle, nesting birds, and roosting bats would occur (BI-1 and C-BI-1).

1.4.2 Alternative B: Project Design Alternative

The Project Design Alternative would combine alternate physical site locations for the following primary project components to minimize or avoid potential impacts to cultural and biological resources, and air quality. Under this alternative, treatment, storage, and pumping facilities would be co-located at the San Francisco Zoo (Zoo) overflow parking lot instead of the Oceanside WPCP and Central Reservoir in Golden Gate Park, respectively. The Project Design Alternative modifies the proposed distribution pipeline to avoid Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard. The Project Design Alternative excludes the Harding Road staging area, and includes staging for treatment facility construction within the 2.3 acre Zoo overflow parking lot site or the Zoo's maintenance yard.

The Project Design Alternative would meet all Project Objectives and would avoid or reduce significant impacts to paleontological resources, biological resources, and air quality compared to the proposed project. The Project Design Alternative could result in additional traffic, and noise impacts during construction. It may also result in increased energy use to pump recycled water over longer distances.

1.4.3 Alternative C: Reduced Project Alternative

The Reduced Project Alternative would eliminate Lincoln Park and the Presidio as recycled water customers; eliminating the need to construct and operate the new underground storage reservoir and pump station in Golden Gate Park's Central Reservoir, as well as distribution pipelines north of Central Reservoir. Further, the recycled water treatment plant and storage at the Oceanside WPCP would be somewhat smaller than the proposed project. Staging areas, construction methods, excavation, dewatering, and equipment would be consistent with those described in Chapter 3, Project Description. However, the overall duration of construction would be reduced. The operational capacity to serve peak-day demands would be up to 3.8 mgd (or 1.7 mgd annual average).

Reducing the number and size of project components under the Reduced Project Alternative would reduce impacts to cultural resources and biological resources. All of the significant impacts of the proposed project would remain significant under the Reduced Project Alternative, with the exception with potential disturbance of human remains that may be present in the vicinity of the Golden Gate Cemetery, which would be avoided. The magnitude of significance would generally be less under the Reduced Project Alternative, and all of the impacts would be reduced to a less-than-significant level with implementation of the same mitigation measures specified in this EIR for the proposed project. However, this alternative would not meet WSIP level of service goals to the same extent as the proposed project.

1.4.4 Environmentally Superior Alternative

The Reduced Project Alternative is considered to be the environmentally superior alternative among the project alternatives. The Reduced Project Alternative would decrease the intensity of construction-related impacts relative to those of the project. However, this alternative would not meet WSIP level of service goals to the same extent as the proposed project.

1.5 Areas of Known Controversy and Issues to be Resolved

The SFPUC first proposed the project in June 2008 with the release of an NOP and scoping meetings by the San Francisco Planning Department. This first proposal was to construct a recycled water treatment plant at the Oceanside WPCP that would supply recycled water to Golden Gate Park, Lincoln Park, the Zoo, and other smaller parks. The project did not include reverse-osmosis treatment of the water. The SFPUC subsequently determined that: (1) reverse osmosis was a necessary component of the project, and (2) the original site location at the Oceanside WPCP was too small to include reverse-osmosis treatment facilities. The SFPUC then proposed to construct the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park; this revised project would have supplied recycled water to Golden Gate Park, Lincoln Park, and the Presidio Golf Course. The San Francisco Planning Department issued a second NOP in September 2010 and held scoping meetings on this second proposal. Substantial public comment was received following the release of the 2010 NOP, with many commenters expressing concern about the proposed location of the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park. Following the NOP scoping period, the SFPUC held a series of public workshops to inform the public of the planning process that led to the 2010 proposed project description and to solicit feedback on other potential project sites. As a result of that process, the SFPUC identified five sites as technically feasible, including the proposed Golden Gate Park site. Over the following year, the SFPUC evaluated the feasibility of the five potential project sites. This evaluation process resulted in the project as now proposed.

**TABLE 1-1
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR**

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources			
<p>Impact CP-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code.</p>	Less than Significant	None required	
<p>Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5(f).</p>	Significant	<p>Mitigation Measure M-CP-2: Accidental Discovery of Archeological Resources. The following measures shall be implemented should construction activities result in the accidental discovery of an archeological resource:</p> <p>The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines Sections 15064.5(a) and (c). The project sponsor shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.</p> <p>Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.</p> <p>If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of a qualified archeological consultant, based on standards developed by the Planning Department archeologist. The archeological consultant shall evaluate the discovered material and advise the ERO as to whether the discovery historical or unique retains sufficient integrity and is of potential scientific/historical/cultural significance. If a significant archeological resource is present, the archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor including avoidance measures or other appropriate mitigation.</p> <p>Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing/data recovery program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the EP division guidelines for such programs. The ERO</p>	Less than Significant

TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources (cont.)			
Impact CP-2 (cont.)		<p>may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.</p> <p>The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological testing/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.</p> <p>Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archeological Site Survey NWIC shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound copy, one unbound copy and one unlocked, searchable copy on compact disk (CD) three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.</p>	
Impact CP-3: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Significant	<p>Mitigation Measure M-CP-3: Accidental Discovery of Paleontological Resources. The following measures shall be implemented should construction at the recycled water treatment plant site result in the accidental discovery of paleontological resources:</p> <p>To reduce the potential for the proposed project to result in a significant impact on paleontological resources, the SFPUC shall arrange for a paleontological training by a qualified paleontologist regarding the potential for such resources to exist in the project site and how to identify such resources. The training could consist of a recorded presentation of the initial training that could be reused for new personnel. The training shall also include a review of penalties for looting and disturbance of these resources. An alert sheet shall be prepared by the qualified paleontologist and shall include the following:</p> <ol style="list-style-type: none"> 1. A discussion of the potential to encounter paleontological resources. 2. Instructions for reporting observed looting of a paleontological resource; and instructions that if a paleontological deposit is encountered within a project area, all soil-disturbing activities in the vicinity of the deposit shall cease and the Environmental Review Officer (ERO) shall be notified immediately. 3. Who to contact in the event of an unanticipated discovery. 	Less than Significant

TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources (cont.)			
Impact CP-3 (cont.)		<p>If potential fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with SVP 1995 guidelines and currently accepted scientific practice, and shall be subject to review and approval by the ERO or designee. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report for publication describing the finds. The SFPUC shall be responsible for ensuring that treatment is implemented and reported to the San Francisco Planning Department. If no report is required, the SFPUC shall nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.</p>	
Impact CP-4: The proposed project could accidentally disturb unknown human remains, including those interred outside of formal cemeteries.	Significant	<p>Mitigation Measure M-CP-4: Accidental Discovery of Unknown Human Remains. The following measures shall be implemented should construction activities, all of which are outside a dedicated cemetery, result in the accidental discovery of previously unknown human remains and associated cultural materials:</p> <p>The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activities shall comply with applicable state laws. This shall include immediate notification of the coroner of the county within which the project is located for (i) a determination that no investigation of the cause of death is required; and (ii) in the event of the coroner’s determination that the human remains are Native American, notification of the California Native American Heritage Commission, which shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archaeological consultant, SFPUC, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 24 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the SFPUC shall follow Section 5097.98(b) of the PRC, which states that “the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.”</p>	Less than Significant

**TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR**

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources (cont.)			
<p>Impact CP-5: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains associated with the historic-period Golden Gate Cemetery.</p>	Significant	<p>Mitigation Measure M-CP-5: Archeological Monitoring Program: Based on the potential that human remains associated with the historic-period Golden Gate Cemetery may be present (buried) within the project area, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on the human remains if exposed during construction. The project sponsor shall retain the services of a qualified archeological consultant, based on standards developed by the Planning Department archeologist. The archeological consultant shall undertake an archeological monitoring program (AMP) as specified herein. In addition, the consultant shall be available to conduct an archeological data recovery program (ADRP) if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).</p> <p><i>Archeological Monitoring Program.</i> The archeological consultant shall prepare and submit to the ERO for review and approval an AMP for the ground disturbing activities associated with construction of distribution pipelines along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park and a connection point to the Lincoln Park Pump Station. The AMP shall be conducted in accordance with the approved AMP. The AMP shall minimally include the following provisions:</p> <ul style="list-style-type: none"> • The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored and the frequency. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential human remains and to their depositional context; • The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of human remains; • The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on human remains; 	Less than Significant

TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources (cont.)			
Impact CP-5 (cont.)		<ul style="list-style-type: none"> • The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis; • If human remains are encountered, all soils-disturbing activities in the vicinity of the find shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the find is evaluated. The archeological consultant shall immediately notify the ERO of the encountered human remains. <p>If human remains are encountered, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: the SFPUC immediately notifies the San Francisco County coroner for (i) a determination that no investigation of the cause of death is required; and (ii) a determination whether the human remains are Native American. If the human remains are not Native American, and if the coroner determines the remains are not subject to his or her authority, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing and/or an ADRP. If the ERO determines that the human remains could be adversely affected by the proposed project, at the discretion of the project sponsor either:</p> <p>A) The proposed project shall be re-designed so as to avoid any adverse effect on the human remains; or</p> <p>B) A data recovery program shall be implemented, unless the ERO determines that the find is of greater interpretive than research significance and that interpretive use of the find is feasible.</p> <p>Archeological Data Recovery Program. If required by the ERO, the archeological data recovery program shall be conducted in accord with an ADRP. The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.</p> <p>The scope of the ADRP shall include the following elements:</p> <ul style="list-style-type: none"> • <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations. • <i>Cataloguing and Laboratory Analysis.</i> Description of selected cataloguing system and artifact analysis procedures. 	

**TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR**

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Cultural and Paleontological Resources (cont.)			
Impact CP-5 (cont.)		<ul style="list-style-type: none"> • <i>Discard and Deaccession Policy.</i> Description of and rationale for field and post-field discard and deaccession policies. • <i>Interpretive Program.</i> Consideration of an on-site/off-site public interpretive program during the course of the ADRP. • <i>Security Measures.</i> Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities. • <i>Final Report.</i> Description of proposed report format and distribution of results. • <i>Curation.</i> Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. <p><i>Final Archeological Resources Report.</i> The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.</p> <p>Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey NWIC shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.</p>	
Impact CP-CP: The proposed project could result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains.	Significant	Mitigation: Implementation of Mitigation Measures M-CP-2, M-CP-3, M-CP-4, and M-CP-5.	Less than Significant

TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Transportation and Circulation			
Impact TR-2: Closure of travel lanes during project construction would temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel, but the effects would be of short duration and limited in magnitude.	Less than Significant	None required	
Impact TR-3: Project construction would cause temporary increases in traffic volumes on area roadways, but would not cause substantial conflicts with the performance of the circulation system	Less than Significant	None required	
Impact TR-4: Project construction within roadways would not substantially limit access to adjacent roadways and land uses.	Less than Significant	None required	
Impact TR-5: Project construction would not substantially impair access to alternative transportation facilities (public transit, bicycle, or pedestrian facilities), although it could temporarily deteriorate the performance of such facilities.	Less than Significant	None required	
Impact TR-6: Project operations and maintenance activities would cause some increases in traffic volumes on area roadways, but would not substantially alter transportation conditions and would not cause conflicts with alternative travel modes, including vehicles, emergency vehicles, transit, pedestrians, and bicycle traffic.	Less than Significant	None required	
Impact C-TR: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative traffic increases on local and regional roads.	Less than Significant	None required	

**TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR**

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Noise			
Impact NO-3: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code).	Less than Significant	None required	
Impact C-NO: The proposed project would not have significant cumulative noise impacts.	Less than Significant	None required	
Air Quality			
Impact AQ-2: The proposed project’s construction activities would generate fugitive dust and criteria air pollutants, and could violate an air quality standard or contribute substantially to an existing or projected air quality violation.	Significant	Mitigation Measure M-AQ-1: Construction Emissions Minimization. A. Additional Exhaust Control Measures. In addition to complying with the Clean Construction Ordinance requirements (use of biodiesel fuel grade B20 or higher, and either meets or exceeds Tier 2 engines or operate with the most effective VDECS for off-road equipment), average construction-related NO _x emissions from all overlapping project components shall not exceed 54 pounds per day. The construction contract specifications shall require the contractor to submit a comprehensive inventory of all off-road construction equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities. The inventory shall include each vehicle’s license plate number, horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall demonstrate, through the use of Tier 3 engines (or engines retrofitted with CARB Level 3 Verified Diesel Emissions Control Strategy), that the combined average emissions from all overlapping project components shall not exceed 54 pounds per day. The contractor shall update the inventory and submit it monthly to the SFPUC throughout the duration of the project.	Less than Significant
Impact AQ-3: The proposed project’s construction activities would generate TACs, including DPM, but would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None required	
Impact C-AQ: The proposed project could result in cumulative air quality impacts associated with criteria pollutant and precursor emissions and health risks, but the project’s contribution would not be cumulatively considerable.	Less than Significant	None required	

TABLE 1-1 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THIS EIR

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Hydrology and Water Quality			
Impact HY-6: Project operation would not violate water quality standards or otherwise substantially degrade water quality.	Less than Significant	None required	
Impact C-HY-2: The proposed project, in combination with other reasonably foreseeable past, present, and future projects, would not contribute to violations of water quality standards.	Less than Significant	None required	

**TABLE 1-2
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY**

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Land Use and Land Use Planning			
Impact LU-1: The proposed project would not physically divide an established community.	Less than Significant	None required	
Impact LU-2: The proposed project would not conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	None required	
Impact LU-3: The proposed project would not have a substantial impact upon the existing character of the vicinity.	Less than Significant	None required	
Impact C-LU: The proposed project would not have a significant cumulative impact on land use.	Less than Significant	None required	
Aesthetics			
Impact AE-1: The proposed project would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings.	Less than Significant	None required	
Impact AE-2: The proposed project would not result in a substantial source of light and glare.	Less than Significant	None required	
Impact C-AE: The proposed project would not have a significant cumulative impact on aesthetics.	Less than Significant	None required	
Population and Housing			
Impact PH-1: The proposed project would not induce substantial population growth, either directly or indirectly.	Less than Significant	None required	
Impact PH-2: The proposed project would not displace existing housing units or substantial numbers of people, nor would it create substantial demand for additional housing that would necessitate the construction of replacement housing.	No Impact	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Population and Housing (cont.)			
Impact C-PH: The proposed project would not have a project-specific impact on population and housing and, therefore, would not directly result in a significant cumulative impact on population and housing.	Less than Significant	None required	
Transportation and Circulation			
Impact TR-1: The project would not result in conflict with an applicable congestion management program	Less than Significant	None required	
Noise			
Impact NO-1: The project would not result in substantial groundborne vibration or groundborne noise levels.	Less than Significant	None required	
Impact NO-2: Project operations would not result in the exposure of persons to, or generation of, noise levels in excess of standards or a substantial increase in ambient noise levels in the project vicinity.	Less than Significant	None required	
Air Quality			
Impact AQ-1: The project would not create objectionable odors that would affect a substantial number of people.	Less than Significant	None required	
Greenhouse Gas Emissions			
Impact C-GG-1: The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions.	Less than Significant	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Wind and Shadow			
Impact WS-1: The proposed project would not alter wind in a manner that substantially affects public areas.	Less than Significant	None required	
Impact WS-2: The proposed project would not create new shadow in a manner that could substantially affect outdoor recreation facilities or other public areas.	Less than Significant	None required	
Impact C-WS: The proposed project would not have significant cumulative wind and shadow impacts.	Less than Significant	None required	
Recreation			
Impact RE-1: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities resulting in, substantial physical deterioration or degradation of the facilities.	Less than Significant	None required	
Impact RE-2: The proposed project would not require the construction or expansion of recreational facilities that might have a significant effect on the environment.	No Impact	None required	
Impact C-RE: The proposed project would not have a significant cumulative impact on recreation.	Less than Significant	None required	
Utilities and Service Systems			
Impact UT-1: Implementation of the proposed project would not result in construction or expansion of water or wastewater treatment facilities or stormwater drainage facilities, exceed wastewater requirements, or result in a determination by the wastewater treatment provider that there is insufficient capacity to serve the project.	Less than Significant	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Utilities and Service Systems (cont.)			
Impact UT-2: The proposed project would have sufficient water supply available, and would not require new or expanded water supply resources or entitlements.	Less than Significant	None required	
Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	Less than Significant	None required	
Impact UT-4: The construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste.	No Impact	None required	
Impact UT-5: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities.	Less than Significant	None required	
Impact C-UT: The proposed project would not have a significant cumulative impact on utilities and service systems.	Less than Significant	None required	
Public Services			
Impact PS-1: The proposed project would not increase demand for public services to an extent that would require new or physically altered facilities to be constructed or physically altered in order to maintain acceptable service ratios, response times, or other performance objectives.	No Impact	None required	
Impact C-PS: The proposed project would not result in a significant cumulative impact on public services.	Less than Significant	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources			
<p>Impact BI-1: The project would potentially have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.</p>	<p>Significant</p>	<p>Mitigation Measure M-BI-1a: Nesting Bird Protection Measures.</p> <p>Nesting birds and their nests shall be protected during construction by use of the following:</p> <p>Conducting vegetation and tree removal and construction activities outside the bird nesting season (February 1 to August 30), to the extent feasible.</p> <p>If construction occurs during the bird nesting season, a qualified wildlife biologist would conduct preconstruction surveys within seven days of the start of construction or after any construction breaks of 14 days or more to identify active nests. A nest is defined to be active for raptors if there is a pair of raptors displaying reproductive behavior (i.e., courting) at the nest and/or if the nest contains eggs or chicks. Surveys shall be performed for the project site and suitable habitat within 250 feet of the project site in order to locate any active passerine nests and within 500 feet of the project site to the extent access is granted by other property owners to locate any active raptor (birds of prey) nests or double-crested cormorant or heron rookeries.</p> <p>If active nests are located during the preconstruction bird nesting survey, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nest and the following measures shall be implemented based on their determination:</p> <p>If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply.</p> <p>If construction may affect the active nest, the biologist shall establish a no disturbance buffer. The biologist shall determine the appropriate buffer taking into account the species involved, the presence of any obstruction, such as a building, is within line-of-sight between the nest and construction, and the level of project and ambient activity (i.e. adjacent to a road or active trail). No disturbance buffers for passerines typically vary from 25 feet and greater and for raptors from 300 feet and greater. For bird species that are federally and/or state-listed sensitive species (i.e., threatened, endangered, fully protected, species of special concern), an SFPUC representative, supported by the wildlife biologist, shall consult with the USFWS and/or CDFW regarding nest buffers.</p> <p>Removing inactive passerine nests may occur at any time. Inactive raptor nests shall not be removed unless approved by the USFWS and/or CDFW.</p> <p>Removing or relocating active nests shall be coordinated by the SFPUC representative with the USFWS/and or CDFW, as appropriate, given the nests that are found on the site.</p>	<p>Less than Significant</p>

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources (cont.)			
Impact BI-1 (cont.)		<p>Any birds that begin nesting within the project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases.</p> <p>Mitigation Measure M-BI-1b: Avoidance and Minimization Measures for Special-Status Bats.</p> <p>In coordination with the SFPUC, a qualified wildlife biologist shall conduct preconstruction special-status bat surveys before trees and structures that are suitable for bat roosting (<i>i.e.</i>, excluding temporary trailers, retaining walls, etc.) are removed. If active day or night roosts are found, the wildlife biologist shall take actions to make such roosts unsuitable habitat before trees and structures are removed. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. Bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary.</p> <p>Mitigation Measure M-BI-1c: Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle.</p> <p>During construction on Route 35/Skyline Boulevard, at the Central Pump Station site, on the pipeline route within Golden Park near aquatic habitat, and during use of the Harding Road staging area, the SFPUC shall ensure a biological monitor is present during installation of exclusion fencing and initial vegetation clearing and/or grading, and shall implement the following measures:</p> <p style="padding-left: 40px;">Within one week before work at these sites begins (including demolition and vegetation removal), a qualified biologist shall supervise the installation of exclusion fencing along the boundaries of the work area, as deemed necessary by the biologist, to prevent California red-legged frogs and western pond turtles from entering the work area. The construction contractor shall install suitable fencing with a minimum height of 3 feet above ground surface with an additional 4-6 inches of fence material buried such that species cannot crawl under the fence.</p> <p style="padding-left: 40px;">A qualified biologist shall conduct environmental awareness training in person or via video for all construction workers prior to construction workers beginning their work efforts on the project. The training shall include information on species identification, avoidance measures to be implemented by the project, and the regulatory requirements and penalties for noncompliance. If necessary, the content shall vary according to specific construction areas (e.g., workers on city streets will receive training on nesting birds but not on California red-legged frog identification).</p> <p style="padding-left: 40px;">A qualified biologist shall survey the project area within 48 hours before the onset of initial ground-disturbing activities and shall be present during initial vegetation clearing and ground-disturbing activities. The biological monitor shall monitor the exclusion fencing weekly to confirm proper maintenance and inspect for frogs and</p>	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources (cont.)			
Impact BI-1 (cont.)		<p>turtles. If California red-legged frogs or western pond turtles are found, the SFPUC shall halt construction in the vicinity that poses a threat to the individual as determined by the qualified biologist. If possible, the individual shall be allowed to move out of the project area of its own volition (i.e., if it is near the exclusion fence that can be temporarily removed to let it pass). For western pond turtles, a qualified biologist shall relocate turtles to the nearest suitable habitat. For California red-legged frog, a SFPUC representative shall contact the USFWS and/or CDFW for instructions on how to proceed. Construction shall resume after the individual is out of harm's way.</p> <p>During project activities, excavations deeper than 6 inches shall be covered overnight or an escape ramp of earth or a wooden plank at a 3:1 rise shall be installed; openings such as pipes where California red legged frogs or western pond turtles might seek refuge shall be covered when not in use; and all trash that may attract predators or hide California red-legged frogs or western pond turtles shall be properly contained on a daily basis, removed from the worksite, and disposed of regularly. Following construction, the construction contractor shall remove all trash and construction debris from work areas.</p>	
Impact BI-2: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.	Less than Significant	None required	
Impact BI-3: The project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act.	Less than Significant	None required	
Impact BI-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less than Significant	None required	
Impact BI-5: The project would not conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No Impact	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources (cont.)			
Impact M-C-BIO: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources.	Significant	Mitigation: Implementation of Mitigation Measures M-BI-1a through M-BI-1c.	Less than Significant
Geology and Soils			
Impact GE-1: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, or seismically induced ground failure.	Less than Significant	None required	
Impact GE-2: The proposed project would not result in substantial erosion or loss of top soil.	Less than Significant	None required	
Impact GE-3: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project.	Less than Significant	None required	
Impact GE-4: The project site would not substantially change existing topography or unique geologic features of the site.	No Impact	None required	
Impact C-GE: The proposed project would not have a significant cumulative impact related to geologic hazards.	Less than Significant	None required	
Hydrology and Water Quality			
Impact HY-1: Project construction would not violate water quality standards or otherwise substantially degrade water quality.	Less than Significant	None required	
Impact HY-2: Project operation would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, provide substantial additional sources of polluted runoff, or, with the exception of potentially violating water quality standards, otherwise substantially degrade water quality.	Less than Significant	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Hydrology and Water Quality (cont.)			
Impact HY-3: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	Less than Significant	None required	
Impact HY-4: The proposed project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.	Less than Significant	None required	
Impact HY-5: The project would not expose people or structures to a significant adverse effects, including the risk of loss, injury, or death including flooding as a result of the failure of a levee or dam or by seiche, tsunami, or mudflow.	No Impact	None required	
Impact C-HY: The project would not have a significant cumulative hydrology and water quality impact.	Less than Significant	None required	
Hazards and Hazardous Materials			
Impact HZ-1: The project would not create a significant hazard through routine transport, use, or disposal of hazardous materials.	Less than Significant	None required	
Impact HZ-2: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose workers and the public to adverse effects from release of hazardous materials.	Less than Significant	None required	
Impact HZ-3: Reconfiguration of the chemical building interior would not expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, PCBs, bis(2-ethylhexyl) phthalate (DEHP), and mercury, or result in a release of these materials into the environment during construction.	Less than Significant	None required	

TABLE 1-2 (Continued)
SUMMARY OF IMPACTS OF THE PROPOSED PROJECT – DISCLOSED IN THE INITIAL STUDY

Environmental Impact	Level of Significance Prior to Mitigation	Improvement/Mitigation Measure(s)	Level of Significance After Mitigation
Hazards and Hazardous Materials (cont.)			
Impact HZ-4: Implementation of the project would not result in adverse effects related to hazardous emissions or handling of acutely hazardous materials within one-quarter mile of an existing school.	Less than Significant	None required	
Impact HZ-5: Implementation of the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	None required	
Impact HZ-6: The project would not expose people or structures to a significant risk of loss, injury, or death involving fires.	No Impact	None required	
Impact C-HZ-1: The proposed project would not have a significant cumulative impact related to hazardous materials.	Less than Significant	None required	
Mineral and Energy Resources			
Impact ME-1: The proposed project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner.	Less than Significant	None required	
Impact C-ME: The proposed project would not have significant cumulative mineral and energy impacts.	Less than Significant	None required	

**TABLE 1-3
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES**

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
<i>Description</i>	<p>Recycled water treatment and storage at the Oceanside WPCP; storage and distribution facilities at the Golden Gate Park Central Reservoir.</p> <p>Includes staging areas at the Oceanside WPCP, Zoo Overflow Parking, Zoo Road, and Harding Road.</p> <p>Distribution pipeline route between the Oceanside WPCP and Central Reservoir would include Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard.</p> <p>Operational capacity to serve peak-day demands of up to 5 mgd (or 2 mgd annual average).</p>	<p>Recycled water treatment, storage, and distribution facilities would not be constructed. 1.6 mgd of recycled water would not be produced or delivered.</p>	<p>Co-locates the treatment, storage, and pumping facilities at the San Francisco Zoo overflow parking lot instead of the Oceanside Water Pollution Control Plant and Central Reservoir, respectively.</p> <p>Excludes Harding Road staging area.</p> <p>Modifies distribution pipeline to avoid Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard. Distribution pipeline would extend from treatment and storage plant at San Francisco Zoo overflow parking lot to Wawona Street, then east to 34th Avenue and north to the point of connection in Golden Gate Park. North of Golden Gate Park, the pipeline would be the same as the proposed project.</p> <p>Extends the overall project construction schedule duration by including sequenced, staggered construction of treatment, pumping, storage, and pipeline facilities, and reducing concurrent construction (overlapping phases) of facilities.</p> <p>Operational capacity to serve peak-day demands of up to 5 mgd (or 2 mgd annual average).</p>	<p>Recycled water treatment and storage at the Oceanside WPCP; upgrade of existing storage and distribution facilities at the Golden Gate Park Central Reservoir. However, the recycled water treatment facility and storage at the Oceanside WPCP would be somewhat smaller than under the proposed project and new storage and distribution facilities at the Golden Gate Park Central Reservoir would not be required.</p> <p>Includes staging areas at the Oceanside WPCP, Zoo Overflow Parking, Zoo Road, and Harding Road.</p> <p>Distribution pipeline route between the Oceanside WPCP and Central Reservoir would include Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard. Distribution pipelines would not be required north of the Golden Gate Park Central Reservoir.</p> <p>Operational capacity to serve peak-day demands of up to 3.8 mgd (or 1.7 mgd annual average).</p>
<i>Ability to Meet Project Sponsor's Objectives</i>	Meets all of the Project Objectives	Would not meet any of the Project Objectives	Meets all of the Project Objectives	Meets all of the Project Objectives; partially meets the WSIP goals and objectives

TABLE 1-3 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
IMPACTS				
Cultural and Paleontological Resources				
<i>Archaeological Resources</i>	<p>Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5. (Less than Significant with Mitigation)</p> <p>Excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts on unknown archaeological resources.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on unknown archaeological resources. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by reducing excavation requirements at the Oceanside WPCP and Central Reservoir, and eliminating construction of pipelines north of the Central Reservoir; thereby reducing the potential to expose and cause impacts on unknown archaeological resources. (Less than Significant with Mitigation)</p>
<i>Paleontological Resources</i>	<p>Impact CP-3: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature. (Less than Significant with Mitigation)</p> <p>At the recycled water treatment plant site, excavation would extend approximately into the underlying Colma Formation, which has the potential to include paleontological resources.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>Eliminates potential impacts to paleontological resources associated with proposed treatment plant construction by avoiding excavation in the Colma formation. (Less than Significant)</p>	<p>Decreased</p> <p>Reduces excavation requirements at the Oceanside WPCP; therefore, reduces potential impacts to paleontological resources associated with proposed treatment plant construction and excavation in the Colma formation. (Less than Significant with Mitigation)</p>
<i>Human Remains</i>	<p>Impact CP-4: The proposed project could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)</p> <p>Earthmoving activities associated with project construction could result in direct impacts on previously undiscovered human remains.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on human remains, if present. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced reducing excavation requirements at the Oceanside WPCP and Central Reservoir and eliminating construction of pipelines north of the Central Reservoir, reducing potential to expose and cause impacts on human remains, if present. (Less than Significant with Mitigation)</p>

TABLE 1-3 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Cultural and Paleontological Resources (cont.)				
<i>Human Remains</i>	<p>Impact CP-5: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)</p> <p>Ground disturbing activities associated with construction in the vicinity of the Golden Gate Cemetery site has the potential to disturb human remains, if present.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>No Change</p> <p>Ground disturbing activities associated with construction in the vicinity of the Golden Gate Cemetery site would be the same as the proposed project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur in the vicinity of the Golden Gate Cemetery site; therefore, the potential to disturb human remains, if present, would be avoided. (No Impact)</p>
<i>Cumulative Impacts</i>	<p>Impact C-CP: The proposed project could result in cumulatively considerable impacts related to historical, archeological, or paleontological resources or human remains. (Less than Significant with Mitigation)</p> <p>Without project-level mitigation for Impact CP-1 through Impact CP-5, the project could result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would not occur and would not contribute to any cumulative cultural resources impact. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on cultural resources, if present. Potential effects to paleontological resources would be avoided. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is lightly reduced reducing excavation requirements at the Oceanside WPCP and Central Reservoir and eliminating construction of pipelines north of the Central Reservoir, reducing potential to expose and cause impacts on cultural resources, if present. Potential effects to paleontological resources would be avoided. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>
Air Quality				
<i>Construction Emissions</i>	<p>Impact AQ-2: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. (Less than Significant with Mitigation)</p> <p>Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute</p>	<p>No Impact</p> <p>Activities associated with emission of fugitive dust or criteria pollutants would not occur; potential air quality impacts would be avoided. (No Impact)</p>	<p>Decreased</p> <p>Concurrent phased construction of multiple facilities simultaneously would be reduced. Therefore, associated fugitive dust and criteria pollutant emissions during staggered sequential construction activities emissions may not exceed regulatory thresholds. (Less than Significant or Less than Significant with Mitigation)</p>	<p>No Change</p> <p>The maximum daily average criteria pollutant emissions would be similar to the proposed project. But, the alternative would reduce the overall total emissions since overall construction would be reduced. (Less than Significant with Mitigation)</p>

TABLE 1-3 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Air Quality (cont.)				
	particulate matter into the local atmosphere. Furthermore, the combined NOx emissions from overlapping construction schedules of the project components could exceed the 54 pounds/day significance criterion.			
Biological Resources				
<i>Special-status Species</i>	<p>Impact BI-1: The project would potentially have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Department of Fish and Wildlife Service. (Less than Significant with Mitigation)</p> <p>Removal and/or relocation of trees with active nests, and construction noise and activity adjacent to such trees during the bird nesting season, could result in nest abandonment, destruction, injury, or mortality of nestlings and disruption of reproductive behavior during the breeding season. Also, these activities could result in the death and/or injury of roosting and breeding special-status bats. Injury or mortality to red-legged frog or western pond turtle could occur during project construction in the vicinity of Route 35/Skyline Boulevard, Harding Road, Metson Lake and Lloyd Lake, and Central Reservoir.</p>	<p>No Impact</p> <p>Construction related-activities that could affect special-status species would not occur. (No Impact)</p>	<p>Decreased</p> <p>Areas near known habitat for special-status amphibian species would be avoided. The pipeline would be located in areas with fewer trees than the proposed project; reducing but not avoiding potential impacts to special-status bird and bat species. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>Construction activities at the Central Reservoir would be reduced; thus construction noise and activity adjacent to trees that could include active nests and in areas where red-legged frog or western pond turtle could occur would occur for a shorter period of time than under the proposed project. (Less than Significant with Mitigation)</p>

TABLE 1-3 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Biological Resources (cont.)				
<i>Cumulative Impacts</i>	<p>Impact C-BI-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources. (Less than Significant with Mitigation)</p> <p>The contribution of the proposed project to significant cumulative biological resources impacts could be considerable, due to the project's potential to cause significant, project-specific impacts on the western pond turtle, California red-legged frog, special-status and migratory birds, and special-status bats.</p>	<p>No Impact</p> <p>Construction related-activities that could affect special-status species would not occur and would not contribute to any cumulative cultural resources impact. (No Impact)</p>	<p>Decreased</p> <p>Impacts to special-status amphibians is avoided and impacts to special-status bird and bat species is reduced compared to the proposed project. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>Construction activities at the Central Reservoir would be reduced; thus construction noise and activity adjacent to trees that could include active nests and in areas where red-legged frog or western pond turtle could occur would occur for a shorter period of time than under the proposed project. (Less than Significant with Mitigation)</p>

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CHAPTER 2

Introduction and Background

2.1 Introduction

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (project). The primary purpose of the project is to reduce the City and County of San Francisco's (CCSF) reliance on potable water for nonpotable uses such as irrigation through the production and distribution of highly treated recycled water. The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. Implementation of this project would contribute to meeting the overall WSIP goals and objectives.¹

The project proposes to construct a recycled water treatment plant at the SFPUC's Oceanside Water Pollution Control Plant (WPCP) and within a portion of the adjacent California Army National Guard site. Recycled water produced at this facility would be used in Golden Gate Park (for irrigation of the Panhandle portion of the park and as fill water for Golden Gate Park lakes) as well as at Lincoln Park Golf Course and within various areas of the Presidio, primarily for landscape irrigation. A transmission pipeline would be constructed between the proposed recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park, primarily along 36th Avenue; this pipeline would deliver the recycled water from the Oceanside WPCP to the areas of use. Transmission pipelines would also be constructed between the Central Reservoir and Lincoln Park and the Presidio as well as adjacent to the Golden Gate Park Panhandle. Furthermore, the existing Central Reservoir and pump station in Golden Gate Park would be expanded to include additional storage and pumping capacity.

2.2 Background – Regional Water System and the Water System Improvement Program

2.2.1 Regional Water System Overview

The CCSF, through the SFPUC, owns and operates a regional water system that extends from the Sierra Nevada to San Francisco and provides drinking water to 2.4 million people in San Francisco, San Mateo,

¹ San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

Santa Clara, Alameda, and Tuolumne Counties. The regional water system consists of water conveyance, storage, treatment, and distribution facilities, and delivers water to retail and wholesale customers. The existing system includes more than 280 miles of pipelines, more than 60 miles of tunnels, 11 reservoirs, five pump stations, and two water treatment plants. The SFPUC currently delivers an annual average of about 265 million gallons per day (mgd) of water to its customers. The water source is a combination of local supplies from stream flow and runoff in the Alameda Creek watershed and in the San Mateo Creek and Pilarcitos Creek watersheds (referred to together as the Peninsula watershed), and imported supplies from the Tuolumne River watershed. Local watersheds provide about 15 percent of total supplies, and the Tuolumne River watershed provides the remaining 85 percent. **Figure 2-1** illustrates the general location of the SFPUC regional water system, and **Figure 2-2** shows the location of the water supply watersheds.

Water from the upper Tuolumne River watershed that is captured in the Hetch Hetchy Reservoir can be delivered to SFPUC customers without filtration, provided it meets all federal² and state³ “filtration avoidance” requirements. These requirements specify that the water provider must meet source water quality standards and disinfection criteria and conduct extensive routine water quality monitoring and watershed protection activities. The SFPUC maintains the filtration avoidance status for Hetch Hetchy water by proactively operating and maintaining facilities to prevent contamination of water supplies, and, when unfavorable changes in water quality do occur, by diverting the quality-impaired Hetch Hetchy water out of the regional water system to prevent the water from being delivered to customers.⁴ SFPUC water supplies from the Alameda Creek and Peninsula watersheds do not meet the filtration avoidance criteria and require filtration before delivery to customers.

The SFPUC serves about one-third of its water supplies directly to retail customers, primarily in San Francisco, and about two-thirds of its water supplies to wholesale customers by contractual agreement. The wholesale customers are represented by the Bay Area Water Supply and Conservation Agency (BAWSCA), which consists of 26 member agencies, as shown on **Figure 2-3**.⁵ Some of these wholesale customers have access to other sources of water in addition to the supplies they receive from the SFPUC regional water system, and others rely completely on the SFPUC for water.

2.2.2 SFPUC Water System Improvement Program

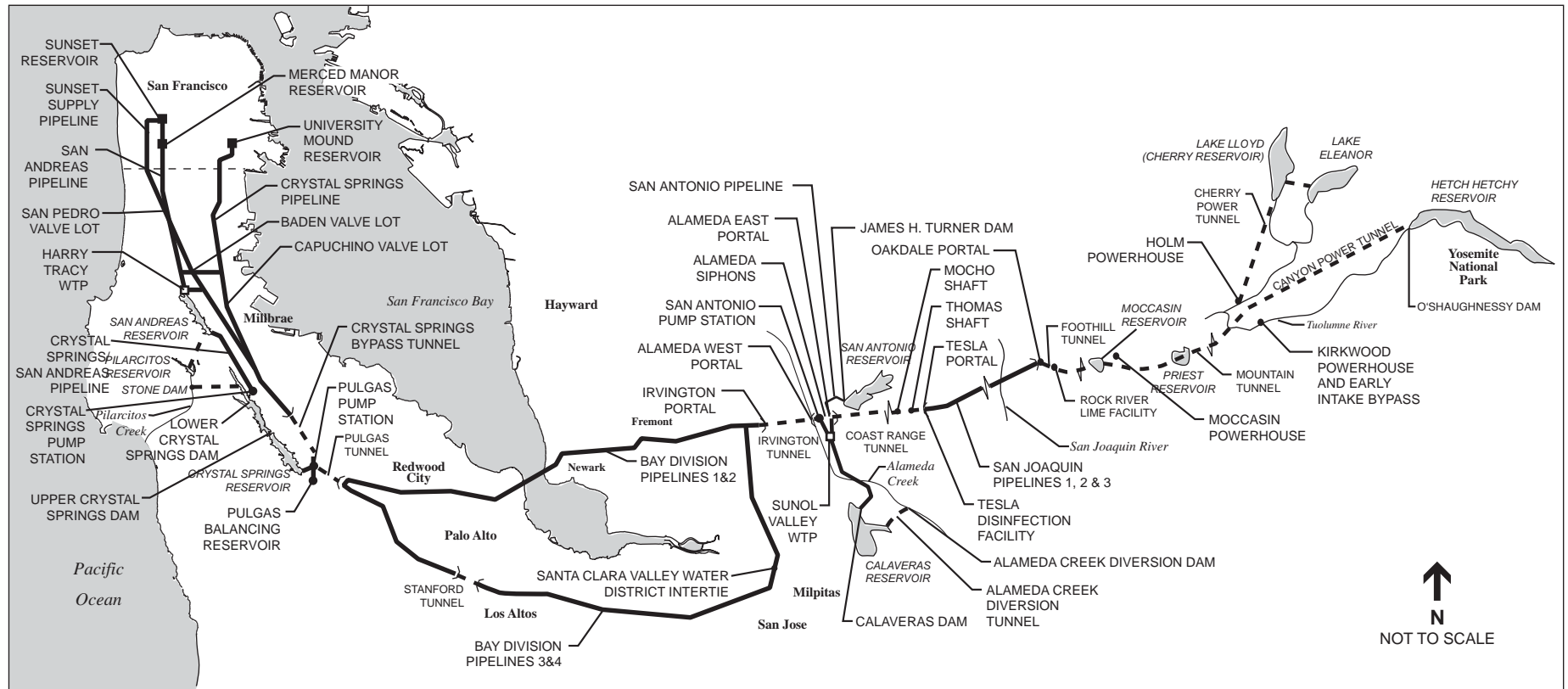
On October 30, 2008, the SFPUC adopted the WSIP (also known as the “Phased WSIP Variant”) and the WSIP goals and objectives (SFPUC Resolution 08-200). The adopted WSIP will improve the regional water system reliability with respect to water quality, seismic response, and water delivery, based on a planning horizon through the year 2030. The WSIP will also improve the regional system with respect to water supply, to meet water delivery needs in the service area through the year 2018. The program area spans seven counties: Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco.

² In 1991, the U.S. Environmental Protection Agency (U.S. EPA) adopted the Surface Water Treatment Rule, which includes water quality provisions for unfiltered water systems. In 1993, the U.S. EPA approved Hetch Hetchy water supplies as an unfiltered source that meets all filtration avoidance criteria contained in the federal statute.

³ In 1998, the state added filtration avoidance provisions to Title 22 of the California Code of Regulations, under which the California Department of Public Health currently regulates the Hetch Hetchy system.

⁴ San Francisco Planning Department, *San Francisco Public Utilities Commission’s Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

⁵ The Cordilleras Mutual Water Association is also a wholesale customer receiving water from the SFPUC, but it is not a BAWSCA member and is not shown in Figure 2-3. It is a small water association serving 18 single-family homes in San Mateo County.



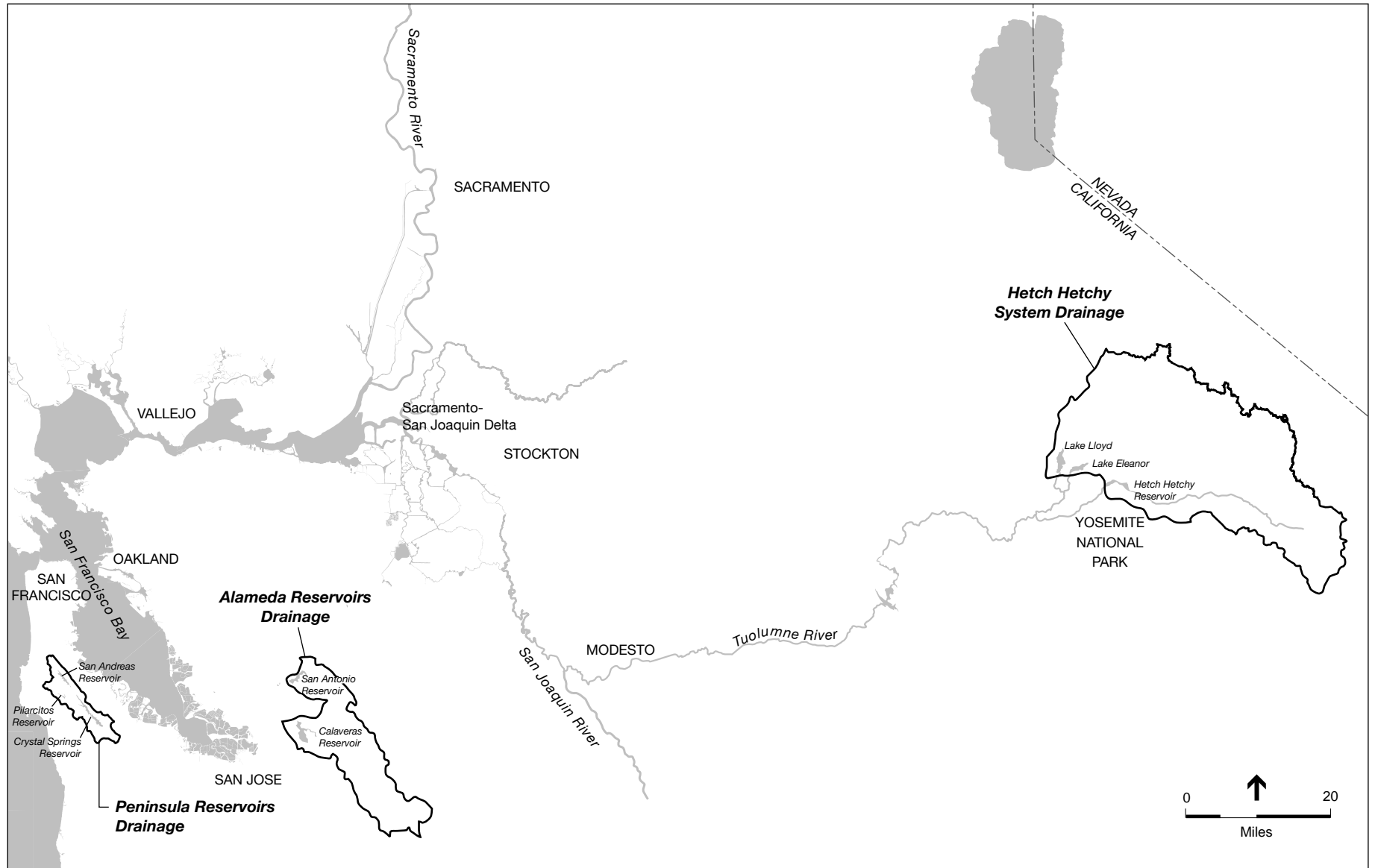
- Pipeline
- - - Tunnel
- Water Treatment Plant (WTP)
- Other Facilities
- ↯ Segments of the system not shown



SOURCE: ESA+Orion, 2009

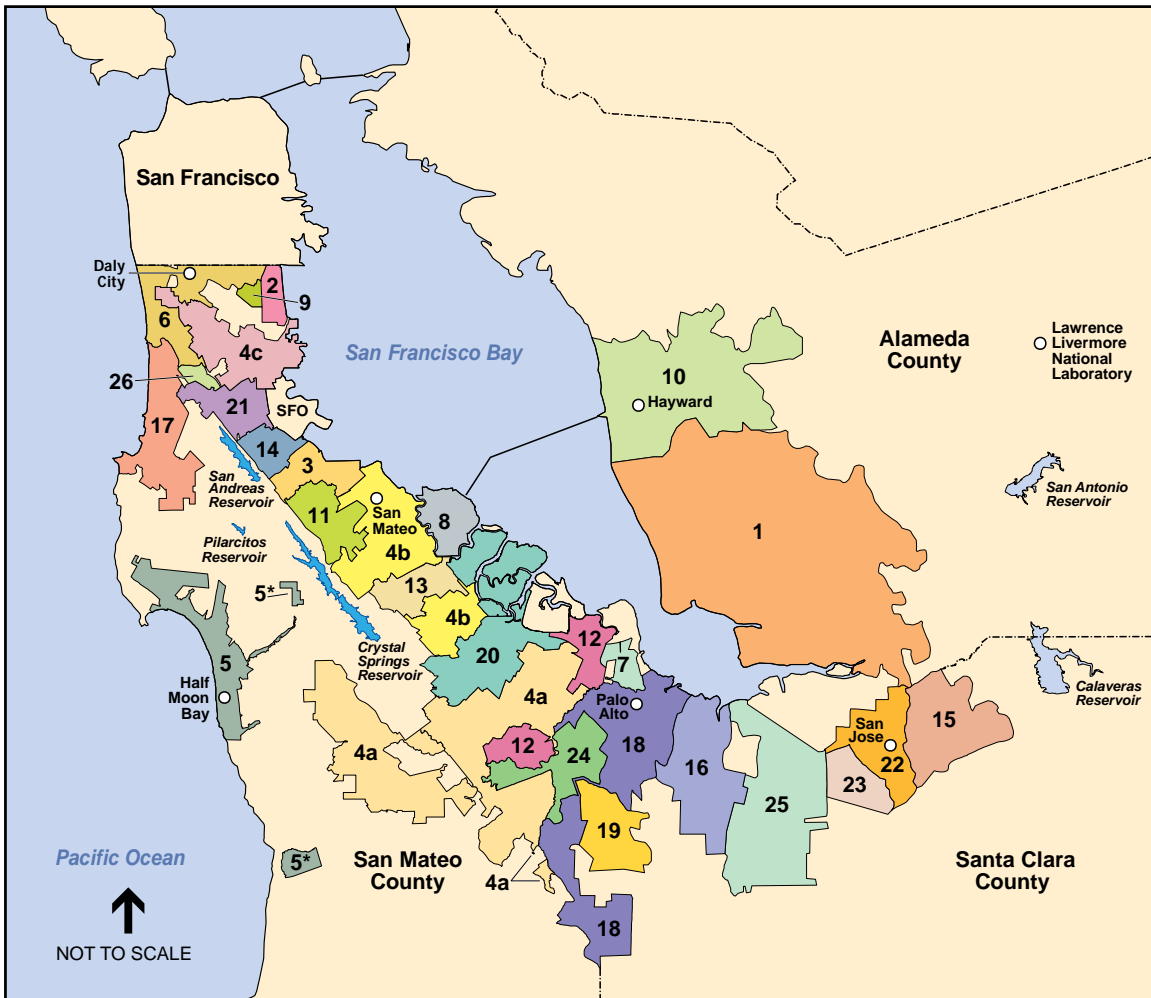
San Francisco Westside Recycled Water Project EIR

Figure 2-1
SFPUC Regional Water System



SOURCE: San Francisco Planning Department, 2008

San Francisco Westside Recycled Water Project EIR
Figure 2-2
SFPUC Water Supply Watersheds



Legend

(Wholesale customers and members of Bay Area Water Supply and Conservation Agency)

- | | |
|---|--------------------------------------|
| 1 Alameda County Water District | 13 Mid-Peninsula Water District |
| 2 City of Brisbane | 14 City of Millbrae |
| 3 City of Burlingame | 15 City of Milpitas |
| 4a CWS – Bear Gulch | 16 City of Mountain View |
| 4b CWS – Mid-Peninsula | 17 North Coast County Water District |
| 4c CWS – South San Francisco | 18 City of Palo Alto |
| 5 Coastside County Water District | 19 Purissima Hills Water District |
| 6 City of Daly City | 20 City of Redwood City |
| 7 City of East Palo Alto | 21 City of San Bruno |
| 8 Estero Municipal Improvement District | 22 City of San Jose (North) |
| 9 Guadalupe Valley Municipal Improvement District | 23 City of Santa Clara |
| 10 City of Hayward | 24 Stanford University |
| 11 Town of Hillsborough | 25 City of Sunnyvale |
| 12 City of Menlo Park | 26 Westborough Water District |

* Portions of Coastside County Water District not served by the SFPUC regional water system.

NOTE: For the purposes of this EIR, the California Water Service (CWS) Company is a single wholesale customer with three different water service districts.

SOURCE: BAWSCA, 2010

San Francisco Westside Recycled Water Project EIR
Figure 2-3
 SFPUC Water Service Area –
 San Francisco and SFPUC Wholesale Customers

The WSIP includes a water supply strategy, modifications to system operations, and construction of a series of facility infrastructure improvement projects. The overall goals of the WSIP are to maintain high-quality water; reduce vulnerability to earthquakes; increase delivery reliability and improve the ability to maintain the system; meet customer purchase requests in nondrought and drought periods; enhance sustainability in all system activities; and achieve a cost-effective, fully operational system (see **Table 2-1**). To further these program goals, the WSIP includes objectives that address system performance in the areas of water quality, seismic reliability, delivery reliability, and water supply.

TABLE 2-1
WSIP GOALS AND OBJECTIVES

Program Goal	System Performance Objective
Water Quality – <i>maintain high-quality water</i>	<ul style="list-style-type: none"> • Design improvements to meet current and foreseeable future federal and state water quality requirements. • Provide clean, unfiltered water originating from Hetch Hetchy Reservoir and filtered water from local watersheds. • Continue to implement watershed protection measures.
Seismic Reliability – <i>reduce vulnerability to earthquakes</i>	<ul style="list-style-type: none"> • Design improvements to meet current seismic standards. • Deliver basic service to the three regions in the service area (East/South Bay, Peninsula, and San Francisco) within 24 hours after a major earthquake. Basic service is defined as average winter-month usage, and the performance objective for the regional system is 229 mgd. The performance objective is to provide delivery to at least 70 percent of the turnouts (i.e., water diversion connecting points from the regional system to customers) in each region, with 104, 44, and 81 mgd delivered to the East/South Bay, Peninsula, and San Francisco regions, respectively. • Restore facilities to meet average-day demand of up to 300 mgd within 30 days after a major earthquake.
Delivery Reliability – <i>increase delivery reliability and improve the ability to maintain the system</i>	<ul style="list-style-type: none"> • Provide operational flexibility to allow for planned maintenance shutdown of individual facilities without interrupting customer service. • Provide operational flexibility to minimize the risk of service interruption from unplanned facility upsets or outages. • Provide operational flexibility and system capacity to replenish local reservoirs as needed. • Meet estimated average annual demand of up to 300 mgd under the conditions of one planned shutdown of a major facility for maintenance concurrent with one unplanned facility outage resulting from a natural disaster, emergency, or facility failure/upset.
Water Supply – <i>meet customer water needs in nondrought and drought periods</i>	<ul style="list-style-type: none"> • Meet average annual water demand of 265 mgd from the SFPUC watersheds for retail and wholesale customers during nondrought years for system demands through 2018. • Meet dry-year delivery needs through 2018 while limiting rationing to a maximum 20 percent systemwide reduction in water service during extended droughts. • Diversify water supply options during nondrought and drought periods. • Improve use of new water sources and drought management, including groundwater, recycled water, conservation, and transfers.
Sustainability – <i>enhance sustainability in all system activities</i>	<ul style="list-style-type: none"> • Manage natural resources and physical systems to protect watershed ecosystems. • Meet, at a minimum, all current and anticipated legal requirements for the protection of fish and wildlife habitat. • Manage natural resources and physical systems to protect public health and safety.
Cost effectiveness – <i>achieve a cost-effective, fully operational system</i>	<ul style="list-style-type: none"> • Ensure the cost-effective use of funds. • Maintain a gravity-driven system. • Implement a regular inspection and maintenance program for all facilities.

SOURCE: San Francisco Public Utilities Commission (SFPUC), SFPUC Resolution 08-0200, Water System Improvement Program California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations, October 2008.

The San Francisco Planning Department prepared a Program Environmental Impact Report (PEIR) to address the potential environmental impacts of the WSIP. The San Francisco Planning Commission certified the WSIP PEIR on October 30, 2008.⁶ The SFPUC approved the WSIP and made findings pursuant to the California Environmental Quality Act (CEQA), including preparation of a statement of overriding considerations and adoption of a mitigation monitoring and reporting program, for the WSIP. The WSIP PEIR is described in Section 5.1.3, Relationship to the WSIP PEIR.

Under the adopted WSIP, the SFPUC committed to implementing conservation, water recycling, and groundwater supply programs in the SFPUC retail service area to achieve the equivalent of 10 mgd of supply every year, including nondrought and drought periods. The proposed project is one of several water supply projects that would help the SFPUC meet this water supply goal (see Section 3.1.1, Recycled Water Demand and Related Projects).

2.3 Purpose of this Environmental Impact Report

Under the San Francisco Administrative Code, Chapter 31, the San Francisco Planning Department, through its Environmental Planning section (EP), is the lead agency responsible for implementing the requirements of the CEQA for all projects sponsored by the CCSF or located within the city, including those sponsored by the SFPUC. CEQA requires the preparation of an Environmental Impact Report (EIR) when a proposed project could significantly affect the physical environment. EP determined that the San Francisco Westside Recycled Water Project, for which the SFPUC is the project sponsor, could cause significant environmental impacts, and that preparation of an EIR was therefore required for the project to comply with CEQA.

EP has prepared this EIR to provide the public and the responsible and trustee agencies reviewing the project with information about the project's potential effects on the environment. This EIR describes the potential environmental impacts resulting from implementation of the San Francisco Westside Recycled Water Project, identifies mitigation measures for reducing impacts to a less-than-significant level where feasible, and evaluates alternatives to the proposed project. The EIR also discusses the potential environmental impacts that could result from the possible future addition of the San Francisco Zoo to the Project. Should the Zoo be added as a water customer to the proposed project, additional CEQA review could be required.

2.4 Environmental Review Process

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the San Francisco Planning Department, as lead agency, sent a first and then a revised Notice of Preparation (NOP) of an EIR to interested entities and individuals to begin the formal CEQA scoping process for the project on June 5, 2008 and September 8, 2010, respectively. After the release of the first NOP in June 2008, the SFPUC determined that reverse-osmosis treatment of the recycled water was necessary, and that the original

⁶ San Francisco Planning Department, San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008 (San Francisco Planning Commission Motion No. 17734). Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

proposed site location for recycled water treatment at the Oceanside WPCP was too small to include a reverse-osmosis treatment facility. The September 2010 NOP identified a proposed treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park. Following the 2010 NOP scoping period, the SFPUC solicited feedback from the public on other potential project sites for the new recycled water treatment plant and, over the following year, evaluated the feasibility of five possible sites. This evaluation process resulted in the project as now proposed and described in the third NOP, which was released on July 16, 2014. Appendix A includes scoping reports that summarize the number of attendees and the verbal and written comments received during the 2008 and 2010 scoping periods.

The revised NOP published on July 16, 2014 identified the project changes made to date and described the proposed facilities and potential environmental effects of the currently proposed project (see Appendix A). The scoping period began on July 16, 2014 and ended on August 15, 2014. The revised NOP was distributed to interested parties that had received the initial NOPs as well as to applicable public agencies and additional interested parties, and landowners/occupants located in the vicinity of the proposed project facilities; was posted on the San Francisco Planning Department website; and was placed in the legal classified section of the *San Francisco Chronicle*.

The scoping process provided an opportunity for governmental agencies and the public to comment on the issues to be covered in the EIR and on the scope of the EIR analyses. The Planning Department prepared draft scoping reports to summarize the public scoping process and the comments received in response to both the initial NOP and the two revised NOPs. The primary environmental concerns raised during the 2014 scoping period are summarized in **Table 2-2**, which also cross-references comments to the applicable EIR sections. In addition, comments submitted during the 2008 and 2010 scoping periods were considered during preparation of this EIR if they remained relevant to the revised project.

2.5 Organization of the EIR

This EIR is organized into eight chapters, as discussed below:

- **Chapter 1, Executive Summary.** This chapter summarizes the proposed project, identifies significant environmental impacts and mitigation measures, and describes the alternatives considered in this EIR. It also identifies areas of controversy and issues to be resolved.
- **Chapter 2, Introduction and Background.** This chapter provides project background information and describes the purpose and organization of the EIR, as well as the environmental review process.
- **Chapter 3, Project Description.** This chapter describes the proposed project (including project objectives), summarizes project components, and provides information about project construction. The chapter also lists required permits and approvals.
- **Chapter 4, Plans and Policies.** This chapter describes applicable land use plans and policies and their relevance to the project and then discusses the project's consistency with those plans.

**TABLE 2-2
SUMMARY OF SCOPING COMMENTS**

Commenter	Summary of Comment	Considered in the Initial Study /EIR
Nancy Horner (National Park Service) (August 15, 2014)	Expresses interest in the project, which lies adjacent to lands managed by the National Park Service.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
	Expresses concern about contaminants of emerging concern.	<ul style="list-style-type: none"> • EIR, Section 3.4.1, Facility Descriptions • Initial Study, Hydrology and Water Quality Impact HY-2 • EIR, Chapter 6.3, Effects found not to be Significant
Craig Middleton (Presidio Trust) (August 14, 2014)	Describes the purpose of the Presidio Trust and its relation to the proposed project.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
	Requests that compliance with the Presidio Trust's permit to use recycled water be addressed.	<ul style="list-style-type: none"> • EIR, Section 3.1.1, Recycled Water Demand and Related Projects • EIR, Section 5.1.4, Approach to Cumulative Impact Analysis and Cumulative Projects
	Recommends confirming whether additional pumping facilities would be necessary.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
	Requests an evaluation of the impacts of constituents in recycled water on water bodies.	<ul style="list-style-type: none"> • EIR, Section 3.4.1, Facility Descriptions • Initial Study, Hydrology and Water Quality Impact HY-2 • EIR, Chapter 6.3, Effects found not to be Significant
Dan Murphy (Golden Gate Audubon Society) (August 9, 2014)	Requests that impacts on bird species be addressed, and recommends mitigation measures for affected bird species.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-1 and Impact BI-4 • EIR, Chapter 6.3, Effects found not to be Significant
Ahmad Kashkoli (State Water Resources Control Board) (August 6, 2014)	Describes the Clean Water State Revolving Fund Program and requirements of the program.	<ul style="list-style-type: none"> • EIR, Chapter 3.5.1, Approval Required • EIR, Chapter 6.3, Effects found not to be Significant
Dan Murphy (Golden Gate Audubon Society) (August 17, 2014)	Supports the extension of recycled water to more SFPUC customers.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description • EIR, Chapter 7, Alternatives
	Recommends increasing the delivery capacity of the project.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description • EIR, Chapter 7, Alternatives
	Recommends using the largest diameter pipes discussed in the NOP and Initial Study.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
	Expresses concern about the visibility of project structures, and provides mitigation measures.	<ul style="list-style-type: none"> • Initial Study, Aesthetics Impact AE-1 • EIR, Chapter 6.3, Effects found not to be Significant
	Recommends a vegetation plan be developed for each new building.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-1 and Impact BI-4 • EIR, Chapter 6.3, Effects found not to be Significant
	Requests that mitigation measures be incorporated into the project for impacts on bird species; and that specific records of bird species occurrence be incorporated.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-1 and Impact BI-4 • EIR, Chapter 6.3, Effects found not to be Significant
	Disagrees with the impact determination on amphibians.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-1 • EIR, Chapter 6.3, Effects found not to be Significant
	Recommends the appropriate duration for bird nesting, and questions impact determinations for some bird species.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-1 and Impact BI-4 • EIR, Chapter 6.3, Effects found not to be Significant
Glenn Rogers (Public Scoping Meeting, July 29, 2014)	Recommends changing city taxes; payment of water by schools; and financing of park improvements.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
Steve Lawrence (July 18, 2014)	Recommends project alternatives, including desalination.	<ul style="list-style-type: none"> • EIR, Chapter 7, Alternatives

**TABLE 2-2 (Continued)
SUMMARY OF SCOPING COMMENTS**

Commenter	Summary of Comment	Considered in the Initial Study /EIR
Joan Girardot (Coalition for San Francisco Neighborhoods) (Public Scoping Meeting, July 29, 2014)	Recommends that the EIR present volumes of water in terms that the public understands.	<ul style="list-style-type: none"> • EIR, Chapter 3, Project Description
Katherine Howard (Golden Gate Park Preservation Alliance) (Public Scoping Meeting, July 29, 2014)	Requests that the EIR address aesthetics and recreation impacts.	<ul style="list-style-type: none"> • Initial Study, Aesthetics Impact AE-1 and Impact AE-2 • Initial Study, Recreation Impact RE-1 and Impact RE-2 • EIR, Chapter 6.3, Effects found not to be Significant
	Requests that any impact on the park, especially trees, be addressed.	<ul style="list-style-type: none"> • Initial Study, Biological Resources Impact BI-5 • EIR, Chapter 6.3, Effects found not to be Significant
	Requests that the EIR evaluate project impacts on Golden Gate Park, including historic character, aesthetics, wildlife, and vegetation in the park.	<ul style="list-style-type: none"> • Initial Study, Aesthetics, Impact AE-1 and Impact AE-2; • Initial Study, Biological Resources Impact BI-1, Impact BI-4, and Impact BI-5 • EIR, Chapter 5.2, Cultural and Paleontological Resources • EIR, Chapter 6.3, Effects found not to be Significant

- **Chapter 5, Environmental Setting and Impacts.** This chapter is subdivided into sections for each environmental resource topic. Each section describes the environmental and regulatory setting, the criteria used to determine impact significance, and the approach to the analysis for that resource topic. It then presents analyses of potential environmental impacts as well as the project-specific mitigation measures that have been developed to address significant and potentially significant impacts. Each section also includes an evaluation of cumulative impacts with respect to that resource topic.
- **Chapter 6, Other CEQA Issues.** This chapter discusses growth-inducing effects, summarizes the cumulative impacts, identifies the significant environmental effects that cannot be avoided if the proposed project is implemented, and describes the significant irreversible impacts as well as known areas of controversy.
- **Chapter 7, Alternatives.** This chapter describes the alternatives to the proposed project and compares their impacts to those of the proposed project. This chapter also summarizes the alternatives that were considered but eliminated from further analysis.
- **Chapter 8, EIR Authors and Consultants.** This chapter lists the authors of this EIR.

2.6 EIR Public Participation

The CEQA Guidelines and Chapter 31 of the San Francisco Administrative Code encourage public participation in the planning and environmental review processes. CCSF will provide opportunities for the public to present comments and concerns regarding the CEQA processes for this project. These opportunities will occur during a public review and comment period, March 18, 2015 through May 4, 2015, and a public hearing before the San Francisco Planning Commission on April 23, 2015. The Draft EIR is available for public review and comment on the Planning Department's SFPUC Negative

Declarations and EIRs web page (<http://www.sf-planning.org/index.aspx?page=1829>). CDs and paper copies are also available at the Planning Information Center counter on the first floor of 1660 Mission Street, San Francisco.⁷ Referenced materials are available for review at the Planning Department's office at 1650 Mission Street, Suite 400 (call (415) 575-9035 or e-mail timothy.johnston@sfgov.org).

Written public comments may be submitted to the Planning Department to the attention of Sarah Jones, Environmental Review Officer, at 1650 Mission Street, Suite 400, San Francisco, CA 94103, during the specified public review and comment period (indicated on the cover of this EIR), and written and oral comments may be presented at public hearings concerning the project (also indicated on the cover of this EIR).

⁷ Paper copies are also available for review at the San Francisco Main Library and the Ortega, Anza, Richmond, Park, and Sunset branches; the Government Publications Department of the San Francisco State University Library; the Hastings College of Law Library; and the University of California Institute of Government Studies.

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CHAPTER 3

Project Description

3.1 Project Overview and Background

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (project). The primary purpose of the project is to reduce the City and County of San Francisco's (CCSF) reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The project would meet the current water demand in areas of western San Francisco that have substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), the Presidio Golf Course, and other irrigated areas within the Presidio. In addition to capacity to serve these areas, the proposed project would have enough capacity to serve potential future customers, such as the San Francisco Zoo (Zoo). The project includes construction of a recycled water treatment plant and underground storage as well as construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to existing customers (see **Figure 3-1**).¹

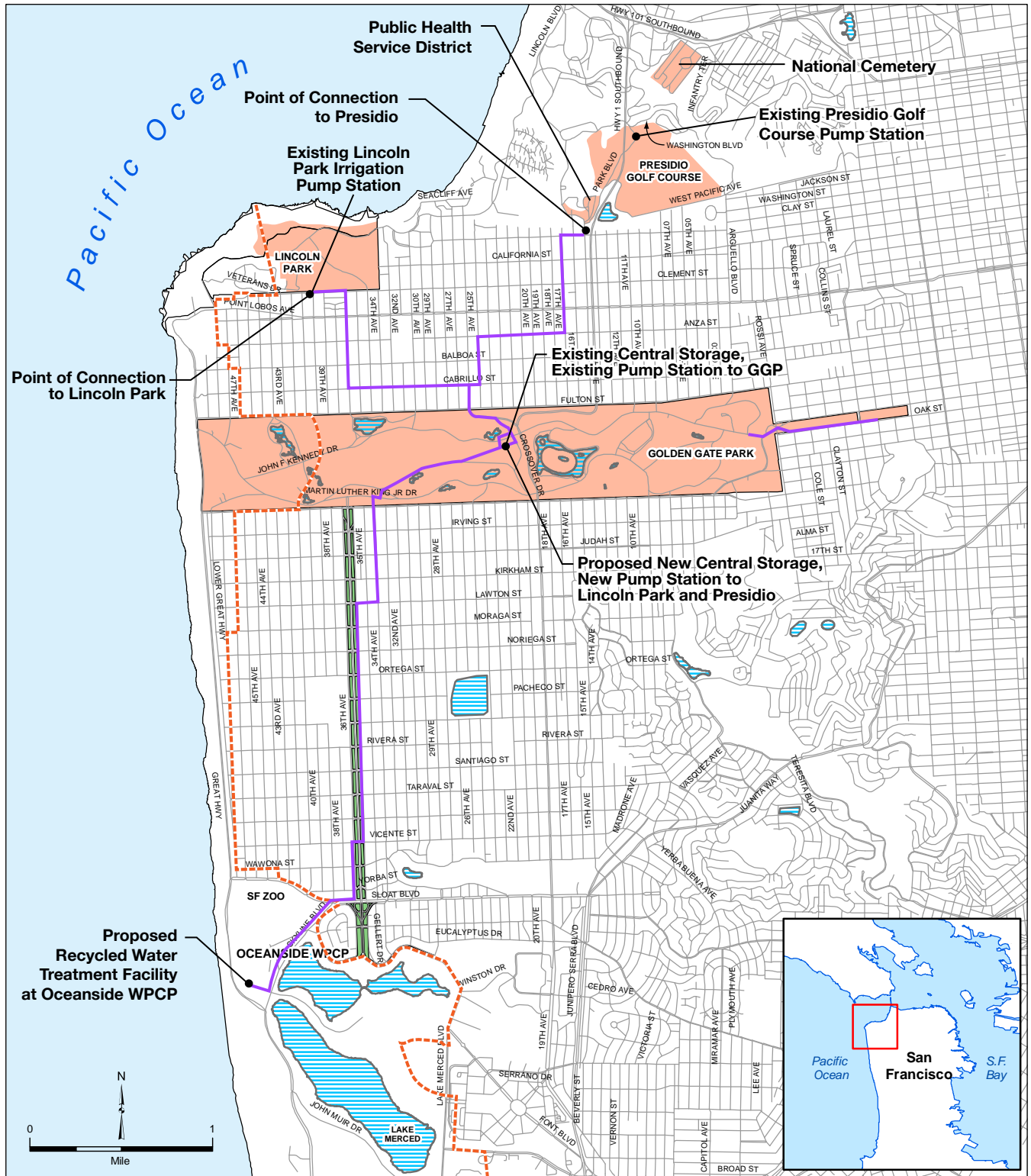
The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system.²

3.1.1 Recycled Water Demand and Related Projects

The Westside Recycled Water Project would contribute to meeting the level-of-service goals and system performance objectives identified in the WSIP. These goals include providing a total of 10 million gallons per day (mgd) of water supply from recycled water, groundwater, and conservation projects to meet retail demand in San Francisco. The original WSIP project description indicated that approximately 4 of the 10 mgd would be derived from a recycled water project in San Francisco, and that this project would have two components: the Westside Baseline and Harding Park/Lake Merced projects. Originally, the Westside Baseline Project proposed to deliver 2.8 mgd of recycled water to irrigation customers in western San Francisco, and the Harding Park/Lake Merced Project proposed to deliver 1.3 mgd of recycled water for irrigation of the Harding Park Golf Course and for recharge of Lake Merced.

¹ Figure 3-1 includes identification of the coastal zone boundary, as related to issuance of a Coastal Development Permit, as discussed in Section 3.5.1, Approvals Required

² San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.



- Proposed Pipeline Alignment
- - - Coastal Zone Boundary
- Customer Area Served

SOURCE: SFPUC, 2007; 2010; DOA, 2005; ESRI, 2008; ESA, 2013; CCSF, 2006.

San Francisco Westside Recycled Water Project EIR

Figure 3-1
Project Location

The SFPUC has since refined the recycled water demand estimate for users on the west side of San Francisco and has identified three major recycled water customers for the project: Golden Gate Park, Lincoln Park/Lincoln Park Golf Course, and the Presidio (including the Golf Course, National Cemetery, and landscape irrigation). Together, the recycled water demand for these customers is estimated at 1.6 mgd (annual average), with a 4 mgd peak-day demand (during summer months). The project would be sized to accommodate an additional 0.4 mgd annual average (additional 1 mgd peak demand) for a total capacity to serve peak-day demands of up to 5 mgd (or 2 mgd annual average). The buildout capacity would be adequate to serve potential future customers that are not currently included in the Westside project, including the Zoo and other parks and irrigated areas in western San Francisco. **Table 3-1** summarizes the proposed customers and their respective demands that would be served by the project.

**TABLE 3-1
SUMMARY OF PROPOSED RECYCLED WATER CUSTOMERS**

End User	Average Annual Demand (mgd)	Peak-Day Demand (mgd)
<i>Golden Gate Park</i>		
Irrigation/California Academy of Sciences	0.94	2.41
Lake Fill	0.4	0.4
<i>Lincoln Park Golf Course</i>		
Irrigation	0.11	0.30
<i>Presidio (All)</i>		
Irrigation	0.19	0.89
<i>Capacity for Potential Future Users</i>		
Irrigation	0.4	1
Total (rounded)	2	5

mgd = million gallons per day

SOURCES: SFPUC, *WSIP Westside Recycled Water Project (Project No. CUW302-01), Second Addendum to Project Description, Technical Memorandum, July 2, 2010*; SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report, July 2014*.

As described in this chapter, the current proposed project includes only the components of the Westside Baseline Project, and is now referred to as the San Francisco Westside Recycled Water Project. The SFPUC has already constructed a project that provides recycled water to Harding Park and is exploring the use of stormwater to maintain lake levels at Lake Merced. Both of these projects are described briefly below. Although the recycled water projects originally proposed in the WSIP have been revised, the SFPUC is still committed to meeting the 10 mgd of demand through conservation, recycled water, and groundwater projects.

Harding Park Recycled Water Project

The SFPUC completed the construction of the Harding Park Recycled Water Project. This project involved constructing the necessary infrastructure—recycled water pipeline, underground storage reservoir, and irrigation pump station—to allow conveyance of recycled water produced by the North

San Mateo County Sanitation District (at the Daly City treatment facility) to irrigate the TPC Harding Park and Fleming public golf courses, which are under the jurisdiction of the San Francisco Recreation and Park Department. Daly City certified the Harding Park Recycled Water Project Environmental Impact Report (EIR) (State Clearinghouse No. 2009-012004) in 2009; construction began in November 2010 and was completed in October 2012. The project meets all of TPC Harding Park's irrigation water needs, which are now estimated at approximately 0.23 mgd on an average annual basis.

Vista Grande Drainage Basin Improvement Project

The WSIP includes the Lake Merced Project, which would raise the level of Lake Merced in San Francisco using a supplemental source of water, such as stormwater, recycled water, groundwater, or SFPUC system water. However, that project is not proceeding at this time because another project (the proposed Vista Grande Drainage Basin Improvement Project) would fulfill the needs of the Lake Merced Project. The City of Daly City is in the initial stages of engineering design and environmental compliance for this project.³ The South Lake Merced Alternative, which is currently identified as the proposed Vista Grande Drainage Basin Improvement Project, would divert some stormwater (and authorized non-stormwater) flows from the Vista Grande Canal to Lake Merced, which would fulfill the goals of the WSIP Lake Merced Project.

Other Related Projects

Implementation of the proposed project is related to the SFPUC's San Francisco Groundwater Supply Project, which involves the development of local groundwater supply and blending of that supply with surface water supply. The San Francisco Groundwater Supply Project would convert two existing irrigation wells in Golden Gate Park to potable use; however, those wells would not be used to supply municipal water under the San Francisco Groundwater Supply Project until the proposed project is implemented and recycled water is available for Golden Gate Park landscaping requirements, or until another landscaping water source is identified. The San Francisco Planning Commission certified the Groundwater Supply Project EIR on December 19, 2013.⁴

Implementation of the proposed project is also related to potential future actions by recycled water customers that would need to retrofit their irrigation facilities to accommodate the recycled water. The exact nature of actions that may be taken is not known at this time but could include bringing systems into compliance with California Department of Public Health Services requirements, adding distribution systems for the use of recycled water (e.g., the Presidio would install distribution pipelines to serve irrigated areas), and in the case of the Presidio Trust, receiving an amendment or new water supply permit from the State Water Resources Control Board to address the use of recycled water within the Lobos Creek watershed. Environmental review of any necessary distribution systems or other system upgrades would be performed by the users of these distribution systems.

³ The Vista Grande Drainage Basin Improvement Project is currently in environmental review. On February 28, 2013, the City of Daly City and the National Park Service published a Notice of Preparation/Notice of Intent that an environmental impact report/environmental impact statement would be prepared for this project (http://www.dalycity.org/City_Hall/Departments/public_works/Reports_1119/vistagrande_alts.htm).

⁴ San Francisco Planning Department, *San Francisco Groundwater Supply Project, Final Environmental Impact Report*, Case No. 2008.1122E, December 19, 2013. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

3.2 Project Sponsor's Objectives

As discussed above, the proposed project would contribute to the goals of the WSIP through the development of recycled water as an alternative water supply for nonpotable uses in the SFPUC's retail service area within San Francisco, thereby benefiting the regional system by reducing demands for potable water. The project would design and construct the treatment and distribution system facilities required to produce and deliver an annual average of approximately 1.6 mgd of recycled water for irrigation and other nonpotable uses in the western area of the city. The specific objectives of the project are to:

- Diversify the SFPUC's water supplies by developing recycled water
- Develop a new water supply in San Francisco that is both reliable and drought resistant
- Reduce the use of potable water and groundwater for irrigation and other nonpotable uses by supplying those demands with recycled water

3.3 Project Location and Existing Uses

Project facilities would be constructed or replaced/modified at several locations throughout western San Francisco (see Figure 3-1), including the SFPUC's Oceanside Water Pollution Control Plant (WPCP) and a portion of the adjacent area leased by the CCSF to the California Army National Guard near Lake Merced; the Central Reservoir and the Panhandle portion of Golden Gate Park; and roadways connecting the recycled water treatment plant to Golden Gate Park, the Presidio, and Lincoln Park. A Golden Gate Park maintenance area would be temporarily relocated to the former Richmond-Sunset Water Pollution Control Plant in Golden Gate Park.

3.3.1 Oceanside WPCP

The proposed recycled water treatment plant would be located at the existing Oceanside WPCP⁵ (see **Figure 3-2**), which is at 3500 Great Highway. The Oceanside WPCP site is surrounded on the southwest by the Great Highway and Fort Funston/Golden Gate National Recreation Area and on the southeast by Skyline Boulevard/State Route 35 and Lake Merced. On the west and north, the site is bordered by an open space buffer, the California Army National Guard armory, and the Zoo. Entrances to the Oceanside WPCP are located along Skyline Boulevard and the Great Highway. The Oceanside WPCP contains about seven buildings over an approximately 12-acre area, including headworks, primary treatment, secondary treatment, solids handling, and support facilities.⁶ The roofs of many existing Oceanside WPCP structures are covered with soil and planted with ornamental landscaping. The Oceanside WPCP is located within a bermed area, and the Oceanside WPCP facilities are generally not visible from public areas, with the following exceptions: the existing facility entrances, lighting structures and fencing, and a retaining wall

⁵ The Oceanside WPCP was constructed in 1994 and is operated by the SFPUC. The Oceanside WPCP currently treats about 20 percent of the average annual wastewater flows for San Francisco.

⁶ SFPUC, *San Francisco Sewer System Master Plan, Draft*, June 15, 2010. Available online at <http://www.sfwater.org/modules/showdocument.aspx?documentid=723>.

at the top of the berm in the vicinity of the Great Highway entrance. Within the bermed area, there are several structures (up to approximately 45 feet tall) along the edge of the berms, as well as a parking area and access roads in the center. The portion of the California Army National Guard site included in the proposed project is currently used as a landscaped berm. The site is within the Public Use district and the Open Space height and bulk district. The recycled water treatment plant would be sited within the Oceanside WPCP, which would allow for the sharing of critical facilities (including the plant access road and chemical storage and offloading facilities), thereby reducing the space requirements for the new recycled water treatment plant.

3.3.2 Golden Gate Park

Golden Gate Park, managed by the San Francisco Recreation and Park Department (SFRPD), is located in western San Francisco; it is bounded on the west by the Great Highway, on the north by Fulton Street, on the east by Stryan Street, and on the south by Lincoln Way. Proposed facility sites within Golden Gate Park include the existing Central Reservoir and the existing booster pumps in the Panhandle portion of the park and at the former Richmond-Sunset Water Pollution Control Plant site. The Central Reservoir, which covers approximately 5 acres, is located near the southwest quadrant of the intersection of John F. Kennedy Drive and Transverse Drive. The Central Reservoir site is a fenced, maintenance area that currently contains an underground reservoir, an aboveground pump station, and wood waste and composting areas (see **Figure 3-3**).⁷ The site is accessed by a road (Overlook Drive) that is primarily used by maintenance vehicles and by some bicyclists and pedestrians. The underground reservoir is a buried 2-million-gallon storage reservoir with a connected aboveground pump station used to serve the park's irrigation system. The aboveground pump station is approximately 40 feet by 60 feet and 19 feet tall, with a connecting cement wall that is approximately 25 feet tall and 120 feet long. Existing booster pump stations are located within the Panhandle area of Golden Gate Park.

As noted, the project also includes the former Richmond-Sunset Water Pollution Control Plant site during temporary construction activities; this plant was largely removed in 1995. A garage/storage structure to the south of the well facility still remains. The site is located in the western part of Golden Gate Park, north of Martin Luther King Jr. Drive and east of the Murphy Windmill and Millwright's Cottage. The SFRPD refers to this site as the "West End Dump," and previously used the area to conduct all wood waste and composting activities as well as to store inorganic waste from park construction activities, such as concrete and building debris. The site is now used occasionally as a construction staging area.⁸

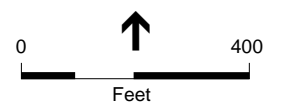
The areas surrounding the Central Reservoir, Panhandle, and former Richmond-Sunset Water Pollution Control Plant sites are characterized by open space with recreational uses, including grassy areas, bicycle paths, and walking trails. Both of these sites are within the Public Use district and the Open Space height and bulk district.

⁷ Figure 3-2 includes identification of the coastal zone boundary, as related to issuance of a Coastal Development Permit, as discussed in Section 3.5.1, Approvals Required

⁸ K. Cornell, SFRPD, Personal Communication Regarding Shift of Activities from Central Reservoir to West End Dump, September 17, 2014.



- Existing Oceanside WPCP
- Proposed Off-Site Staging Area
- Proposed Limit of Construction
- Proposed On-Site Staging Area
- - - Coastal Zone Boundary
- Area Appealable to the California Coastal Commission
- Jurisdiction Retained by the California Coastal Commission
- Local Coastal Zone Permit Area



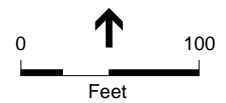
SOURCE: ESA, 2013; EMB, 2013.

San Francisco Westside Recycled Water Project EIR
Figure 3-2
 Existing Conditions – Oceanside WPCP

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- Existing Central Reservoir Facility
- Proposed Limit of Construction



SOURCE: ESA, 2014

San Francisco Westside Recycled Water Project EIR

Figure 3-3
Existing Conditions – Golden Gate Park Central Reservoir

3.3.3 Presidio of San Francisco/Presidio Golf Course

The Presidio of San Francisco is located on the northern end of the San Francisco peninsula. The Presidio is generally bounded on the north by San Francisco Bay, on the east by Lyon Street, on the south by Pacific Avenue and Lake Street, and on the west by the Pacific Ocean. The Presidio is within the Golden Gate National Recreation Area and contains a variety of historical and cultural features, including the San Francisco National Cemetery, the Presidio Golf Course, and the Public Health Services District.⁹

The Presidio Golf Course is used for public recreation purposes and consists of facilities that are typically associated with golf courses, including greens, landscaping, and one- or two-story clubhouse facilities. The Presidio Golf Course is part of the Presidio National Historic Landmark. The proposed pipelines would connect to existing underground supply lines approximately one-half block north of Lake Street on 14th Avenue, adjacent to the Presidio.

3.3.4 Lincoln Park

The Lincoln Park Golf Course is located in northwest San Francisco at 300 34th Avenue at Clement Street. The course covers approximately 112 acres and consists of facilities that are typically associated with golf courses, including greens, landscaping, and one- or two-story clubhouse facilities. The proposed pipelines would connect to an existing irrigation pump station north of the intersection of Clement Street and 39th Avenue.

3.3.5 Proposed Pipeline Routes

The recycled water transmission pipelines would run through the Sunset District within city streets from the recycled water treatment facility at the Oceanside WPCP to the existing Central Reservoir in Golden Gate Park (both described above), through the Richmond District within city streets to proposed customers in Lincoln Park and the Presidio, and along Oak Street to serve the Panhandle. The majority of the pipeline between the Oceanside WPCP and the Central Reservoir would run along Skyline Boulevard, 36th Avenue, 34th Avenue, and Overlook Drive. Pipelines between the Central Reservoir and Lincoln Park Golf Course and the Presidio would, for the most part, be routed along Cabrillo Street, 36th Avenue, 24th Avenue, Anza Street, and 16th Avenue.

3.3.6 San Francisco Zoo

The San Francisco Zoo is located in southwest San Francisco at 1 Zoo Road, which is at the intersection of the Great Highway and Sloat Boulevard. The Zoo is bounded on the south by the Oceanside WPCP and the California Army National Guard Armory, on the east by Skyline Boulevard/State Route 35, on the north by Sloat Boulevard, and on the west by the Great Highway. The Zoo encompasses 100 acres and is managed

⁹ The San Francisco National Cemetery is located in the north-central portion of the Presidio at 1 Lincoln Boulevard, just to the southwest of the intersection of Lincoln Boulevard and Sheridan Avenue. The Presidio Golf Course is located at 300 Finley Road near the intersection of Arguello Boulevard and West Pacific Avenue in the southern portion of the Presidio. The Public Health Services District is also located in the southern portion of the Presidio, off of Wedemeyer Street, south of the Presidio Golf Course and west of Highway 1.

and operated by the private, nonprofit San Francisco Zoological Society in partnership with the CCSF.¹⁰ If the Zoo were to be included as a recycled water customer in the future, it would be necessary to construct new recycled water distribution facilities. This analysis assumes that facilities would be sited at the Zoo maintenance yard to the southwest of the visitor-serving areas of the Zoo or within a portion of the visitor parking area. These potential reservoir locations are covered with asphalt or exposed soil with no mature vegetation. The near-surface soils are disturbed due to past and current activities.¹¹

3.4 Project Characteristics

3.4.1 Facility Descriptions

Recycled Water Facilities at the Oceanside WPCP Site

Recycled Water Treatment Plant and Storage Facilities

A recycled water treatment plant would be constructed within the existing Oceanside WPCP complex and partially within the California Army National Guard property that is currently used as a landscaped berm and parking lot (see **Figures 3-4** and **3-5**). The treatment plant would have an annual average production capacity of up to 2 mgd, but would be sized to meet peak-day demands (during summer months) of up to 5 mgd. The proposed two-story treatment building would be approximately 40 to 45 feet high and approximately 30,000 square feet in total area, and would be constructed of reinforced concrete and glass with a green roof. The treatment plant would house water treatment equipment, electrical controls, pumping equipment, and other appurtenant equipment required for the proposed treatment process summarized below. The treatment building would also contain an electrical substation, operations room, and motor control center. The building design would be similar to that of existing buildings at the Oceanside WPCP site. The proposed treatment plant would be located in the northeast corner of the parking lot at the Oceanside WPCP, with a treatment reservoir constructed below the new facility.¹²

The interior of the existing chemical building at the Oceanside WPCP (Building 510) would be reconfigured to house the chemical storage tanks and feed systems needed for the recycled water treatment processes. In addition, the existing chlorine contact channel at the Oceanside WPCP (Building 530) would be reconfigured to provide 760,000 gallons of secondary effluent equalization storage, which would provide for steady flow to the recycled water facility during periods of low flow to the Oceanside WPCP. The chlorine contact channel would be reconfigured by changing the positions of the existing gate valves¹³ on the bypass channel. Secondary effluent pumps would pump water from either the chlorine contact channels (during dry weather) or the secondary effluent channel (during wet weather).¹⁴

¹⁰ San Francisco Zoological Society, "Zoo Fact Sheet," July 19, 2011. Available online at <http://web.archive.org/web/20110719005753/http://www.szfzo.org/openrosters/ViewOrgPageLink.asp?LinkKey=14092&orgkey=1903>, Accessed September 25, 2014.

¹¹ Environmental Science Associates, *SFPUC San Francisco Westside Recycled Water Project, Draft Historic Context and Archaeological Survey Report*, Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, December 2014.

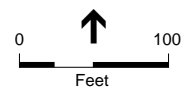
¹² SFPUC, *San Francisco Westside Recycled Water Project (Project No. CUW 30201), Draft Conceptual Engineering Report*, October 2013.

¹³ A multipurpose bi-directional shutoff valve used for commercial and industrial applications.

¹⁴ SFPUC, *San Francisco Westside Recycled Water Project (Project No. CUW 30201), Draft Conceptual Engineering Report*, October 2013.



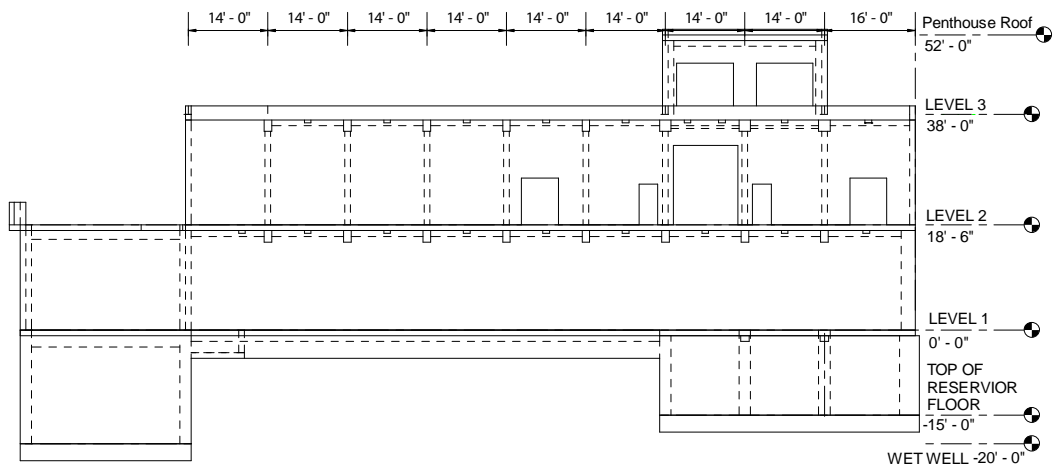
- Existing Oceanside WPCP
- Proposed Recycled Water Treatment Plant
- Proposed Pipeline
- Proposed Limit of Construction
- Proposed On-Site Staging Area
- (E) Existing



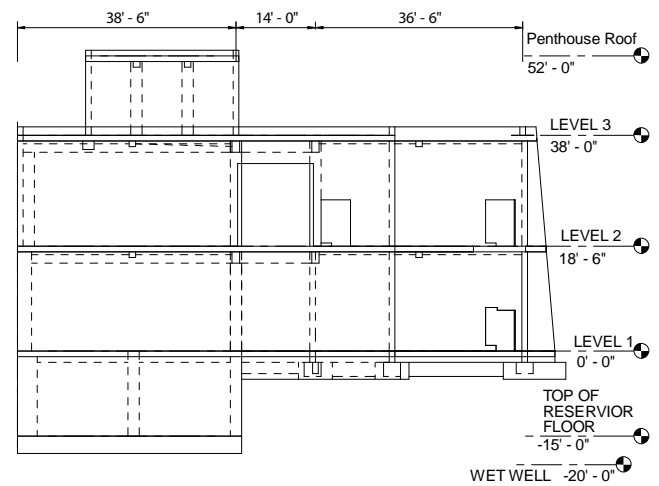
SOURCE: ESA; Google Maps

San Francisco Westside Recycled Water Project EIR

Figure 3-4
 Recycled Water Treatment Plant – Proposed Project
 Components and Construction Areas

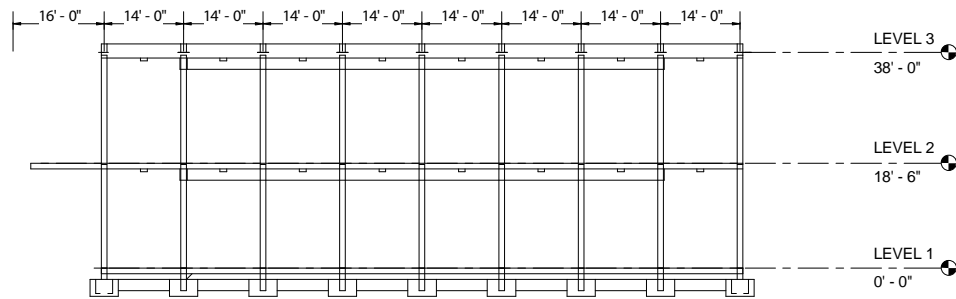


East Elevation

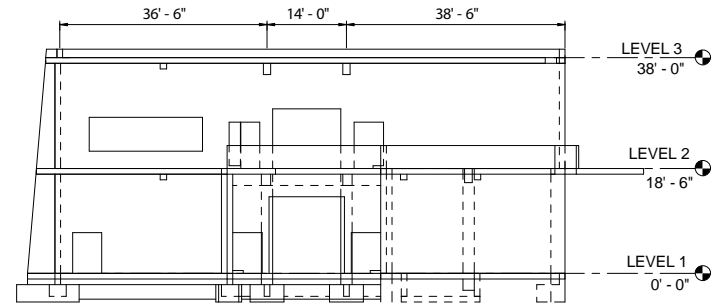


North Elevation

3-13



West Elevation



South Elevation



Two underground storage reservoirs would be constructed beneath the treatment facility, including a 350,000-gallon reservoir used during the treatment process and a 40,000-gallon wet well used to submerge pumps. Three transmission pumps would be installed in an aboveground pump station (approximately 50 by 100 feet and 20 feet high) to convey recycled water from the facility to the Central Reservoir in Golden Gate Park (two duty and one standby). These three pumps would have motors of up to 200 horsepower (1,400-gallon-per-minute capacity), and space would be available to install two pumps in the future (one duty and one standby, with motors of up to 75 horsepower and 700 gallons per minute) to serve potential future users. All pumps would be located in a building enclosure.

Treatment Process

The recycled water treatment plant would treat secondary effluent (wastewater that has gone through secondary treatment) from the Oceanside WPCP to remove suspended and dissolved solids, bacteria, viruses, organic materials, and other constituents, resulting in treated water that meets and/or exceeds the regulatory requirements of the California Department of Public Health for disinfected tertiary recycled water.¹⁵ The proposed recycled water treatment process includes microfiltration/ultrafiltration (MF), reverse osmosis (RO), and ultraviolet light (UV) disinfection.¹⁶ The MF membrane system would remove suspended solids. From the MF filtrate reservoir, the water would be pumped to the RO system to reduce dissolved salts, ammonia, and nutrients. The advanced treated recycled water would then be disinfected with UV disinfection.¹⁷ The recycled water treatment plant would also contain chemical feed systems for coagulant, acid, and base, as well as other chemicals used in the treatment process. Typically, a chlorine residual is introduced into recycled water to prevent biological growth in the proposed distribution systems and in the existing irrigation distribution and sprinkler systems, and chlorine might be introduced into recycled water as part of the project.

Reverse-Osmosis Concentrate (Brine) Disposal

The recycled water treatment process would produce a residual reverse-osmosis concentrate, which is a concentrated brine solution. This brine would be conveyed to the ocean for disposal through the existing Oceanside WPCP Southwest Ocean Outfall. A short segment of pipeline would be routed inside of the

¹⁵ The water quality criteria, treatment process requirements, and treatment reliability criteria for water recycling operations established by the California Department of Health Services are set forth in Title 22, Division 4, Chapter 3 of the California Code of Regulations. Under this regulation, “disinfected tertiary recycled water” means filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater has been disinfected by either: (1) a chlorine disinfection process following filtration that provides a CT value (the product of total chlorine residual and modal contact time measured at the same point) of not less than 450 milligram-minutes per liter at all times, with a modal contact time of at least 90 minutes, based on peak dry-weather design flow; or (2) a disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus, in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters (mL) utilizing the bacteriological results of the past 7 days for which analyses have been completed, and the number of total coliform bacteria does not exceed a MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed a MPN of 240 total coliform bacteria per 100 mL.

¹⁶ Reverse osmosis can remove more than 99% of large pharmaceutical molecules, as indicated by the World Health Organization’s information sheet regarding pharmaceutical chemicals (http://www.who.int/water_sanitation_health/emerging/info_sheet_pharmaceuticals/en/, accessed February 26, 2015)

¹⁷ SFPUC, *San Francisco Westside Recycled Water Project (Project No. CUW 30201), Draft Conceptual Engineering Report*, October 2013.

Oceanside WPCP from the recycled water treatment plant to connect to the existing plant outfall. In addition, an overflow pipeline (about 750-linear-foot and approximately 24 inches in diameter) would initiate at the proposed treatment facility building, traverse the existing Oceanside WPCP campus, and exit the WPCP to the west via the West Tunnel access to Great Highway.

Recycled Water Facilities at the Central Reservoir Site

At the Central Reservoir, the existing pump station (which is approximately 40 feet by 60 feet and approximately 19 feet tall) would pump recycled water into the Golden Gate Park irrigation system. An additional pump station would be added adjacent to the existing facility and would house four distribution pumps (three duty and one standby) with up to 100 horsepower motors (833 gallons per minute), as well as two 8,500-gallon hydropneumatic tanks to pump recycled water from storage to serve Lincoln Park and the Presidio (see **Figures 3-6** and **3-7**). With the inclusion of the new pump station and associated new underground reservoir discussed below, additional storage or pumps would not be required at Lincoln Park or the Presidio. The proposed pump station and yard would be a single-story concrete building, approximately 80 feet by 50 feet, with a height of approximately 20 feet or less. Building design would be similar to the existing pump station.

The project would use Golden Gate Park's existing Central Reservoir and would construct an 840,000-gallon buried storage reservoir adjacent to the existing reservoir and underneath the proposed new pump station. The underground reservoir would be approximately 80 feet by 160 feet by 15 feet deep. It might be necessary to provide connections between the existing and proposed storage tanks, as well as to modify the existing pump station to provide the sufficient pressure to enable distribution of recycled water to the park. Should recycled water become unavailable during a service outage or emergency, two backup supply options would be available. Under the proposed project, an existing irrigation pipeline within Overlook Drive would be converted to a potable supply pipeline and connected to an existing potable water pipeline on Transverse Drive at the intersection with Overlook Drive. The existing irrigation pipeline would be connected to the new reservoir so that potable water could be added to the reservoir if needed. In addition, under a separate project, the SFPUC San Francisco Groundwater Supply Project, a pipeline is proposed that would supply groundwater to the existing Golden Gate Park reservoir when needed.¹⁸

Recycled Water Distribution System

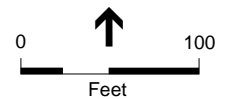
Distribution Pumps

In addition to the distribution pumps described above for the Oceanside WPCP and Central Reservoir sites, the existing booster pump stations in the Panhandle may be upgraded to provide the required pressure to the Panhandle irrigation system. At Lincoln Park, the project pipeline would connect to the existing Lincoln Park pump station. No alteration of the existing Lincoln Park pump station is needed to enable Lincoln Park to distribute recycled water to the golf course irrigation system, but as part of this project the pump system controls would be upgraded if necessary to optimize system operation. At the

¹⁸ San Francisco Planning Department, *San Francisco Groundwater Supply Project Environmental Impact Report, Final*, Case No. 2008.1122E, December 19, 2013. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.



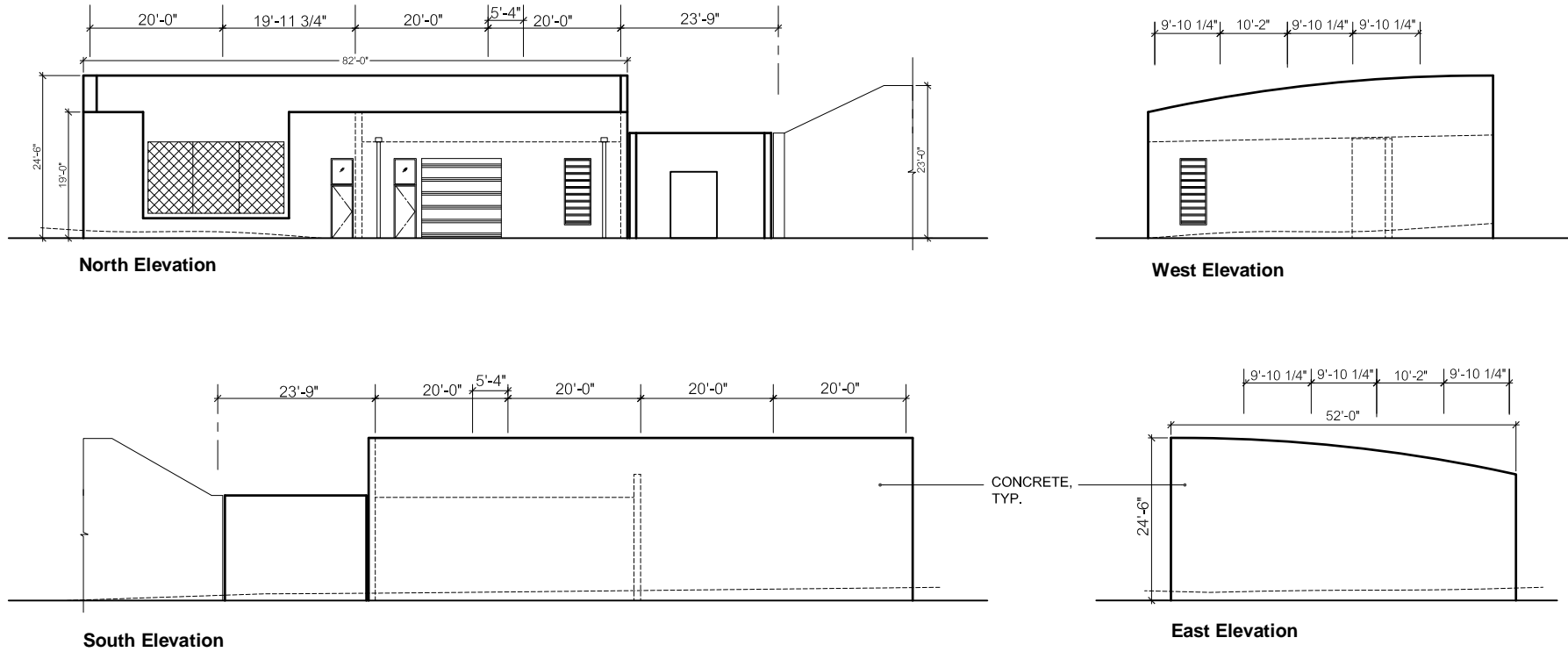
- Existing Central Reservoir Facility
- Proposed Central Reservoir Facilities
- Existing Pipeline
- Proposed Pipeline
- Proposed Limit of Construction
- (E) Existing



SOURCE: ESA, 2014

San Francisco Westside Recycled Water Project EIR

Figure 3-6
Central Reservoir – Proposed Project Components
and Construction Areas



Presidio, the project pipeline would terminate at 14th Avenue and Lake Boulevard. As at Lincoln Park, no additional pump station is needed to enable the Presidio to distribute recycled water to the three sites at which the Presidio has identified for possible use of recycled water.

Pipelines

Approximately 8.5 miles of ductile iron pipeline would be constructed to connect the recycled water treatment plant to proposed customers. The pipes would be built primarily in public street right-of-ways. Pipe diameters would range from 4 to 16 inches. Figure 3-1 shows the proposed pipeline network, which is described below.

Recycled Water Treatment Plant to Golden Gate Park. The distribution pipeline from the proposed recycled water treatment plant at Oceanside WPCP to the existing Central Reservoir in Golden Gate Park would be routed as follows:

- From the proposed recycled water treatment plant east either (1) via the existing vehicle tunnel connecting the Oceanside WPCP to Skyline Boulevard or (2) through a berm to the east of the tunnel and along the west edge of the Armory parking lot
- Northeast along Skyline Boulevard to Sloat Boulevard
- East along Sloat Boulevard to 37th Avenue
- North along 37th Avenue to Vicente Street
- East along Vicente Street to 36th Avenue
- North along 36th Avenue to Lawton Street
- East along Lawton Street to 34th Avenue
- North along 34th Avenue to Lincoln Way
- Along a Golden Gate Park trail north from 34th Avenue/Lincoln Way to Middle Drive West
- Northeast along Middle Drive West to Overlook Drive
- Northeast along Overlook Drive to the Central Reservoir

The distribution pipeline would connect to the existing Central Reservoir and the proposed new reservoir.

Central Reservoir to Lincoln Park Golf Course. The distribution pipeline would continue from the Central Reservoir to Lincoln Park Golf Course as follows:

- North from Central Reservoir either to Overlook Drive or John F. Kennedy Drive
- East along Overlook Drive or John F. Kennedy Drive to Transverse Drive
- Northwest along Transverse Drive to Crossover Drive
- Northwest along Crossover Drive to 25th Avenue
- North along 25th Avenue to Cabrillo Street
- West along Cabrillo Street to 36th Avenue

- North along 36th Avenue to Clement Street
- West along Clement Street to the Lincoln Park point of connection at 39th Avenue and Clement Street

Central Reservoir to the Presidio. The distribution pipeline would continue from the intersection of 25th Avenue and Cabrillo Street (as described above) as follows:

- East along Cabrillo Street from Cabrillo Street/25th Avenue to 24th Avenue
- North along 24th Avenue to Anza Street
- East along Anza Street to 16th Avenue
- North along 16th Avenue to Lake Street
- East along Lake Street to 14th Avenue
- North along 14th Avenue to a proposed turnout at 14th Avenue north of Lake Street

Panhandle Distribution System. The existing Golden Gate Park irrigation system pipeline loop in John F. Kennedy Drive and other roads within the park is connected to the existing Central Reservoir and pump station. However, the Panhandle portion of Golden Gate Park is currently served by municipal water supply and is not connected to the irrigation system described above. Thus, the project would include a pipeline segment to connect the Panhandle to the existing irrigation system in the park (see Figure 3-1). This pipeline would be located along John F. Kennedy Drive and Oak Street. The pipeline would connect to the existing booster pumps within the Panhandle to provide sufficient water pressure for Panhandle irrigation.

San Francisco Zoo Facilities

Should the Zoo become a recycled water customer in the future, a transmission pipeline would be required, and a new pump station and reservoir could be required.¹⁹ Up to approximately 5,200 feet of pipeline would be needed to deliver water from the Oceanside WPCP to the Zoo's existing reservoir and pump station, which are located on the northern part of the Zoo's property near the intersection of Sloat Boulevard and 44th Avenue. The pipeline would likely have a maximum diameter of 12 inches. If a new recycled water storage reservoir and pump station are required, the reservoir would be buried and would likely have a maximum capacity of up to 500,000 gallons, and the pump station would be constructed aboveground and would likely be similar to the Zoo's existing pump station. The siting of the new reservoir and pump station has not been determined, but two potential locations include areas within the visitor parking lot or within the Zoo maintenance yard. It is possible that the proposed transmission pipeline between the Oceanside WPCP and the Zoo would be constructed within the right-of-way of Sloat Boulevard, connecting to the pipeline within Skyline Boulevard/State Route 35. Alternately, if the Zoo's maintenance yard is designated as the underground storage location, the pipeline could be constructed within the rights-of-way of the internal Zoo access road (Zoo Road) and along Herbst Road, where it would connect with the pipeline in Skyline Boulevard.²⁰

¹⁹ SFPUC, Personal Communication regarding 2014 SF Zoo Concepts, February 13, 2014.

²⁰ Ibid.

3.4.2 Site Preparation and Construction

This section details the project's construction locations, activities, and methods. A description of activities that apply to all project locations is provided below, followed by site-specific construction activities associated with the Oceanside WPCP, Central Reservoir, distribution pipelines, and other project components.

Tree trimming could be required at all project locations. In accordance with Section 808(c) of the San Francisco Public Works Code (Protection of Trees and Landscape Material), trees adjacent to construction areas that are not proposed for removal would be protected by:

- Establishing a Tree Protection Zone (TPZ) around any tree or group of trees to be retained, including the dripline of retained trees. This measure will be implemented where feasible; the TPZ could be adjusted on a case-by-case basis after consultation with a certified arborist.
- Marking the TPZ of any trees to be retained with permanent fencing (e.g., post and wire or the equivalent), which would remain in place for the duration of construction activities in the area. "Keep out" signs would be posted on all sides of fencing.
- Prohibiting construction-related activities, including grading, trenching, construction, demolition, or other work within the TPZ; or, if work within the TPZ is necessary, performing the work in a manner that will adequately protect the tree. No heavy equipment or machinery would be operated within the TPZ. No construction materials, equipment, machinery, or other supplies would be stored within a TPZ. No wires or signs would be attached to any tree. Any modifications would be approved and monitored by a certified arborist.
- Pruning selected trees to provide necessary clearance during construction and to remove any defective limbs or other parts that may pose a failure risk. All pruning would be completed by a certified arborist or tree worker and would adhere to the *Tree Pruning Guidelines* of the International Society of Arboriculture.

The project would generate approximately 26,000 cubic yards of spoils (including a 25 percent expansion factor) and would require approximately 3,240 dump truck trips to off-haul material (assuming 16 cubic yard trucks). Material removed from the project sites, including concrete, metal, and green waste, would be processed in accordance with San Francisco City Ordinance No. 27-06, Construction and Demolition Program, which requires a minimum of 65 percent of materials recycled (diverted from landfill) or disposed of at an appropriate landfill in compliance with applicable federal, state, and local regulations. In addition, a construction and demolition debris management plan would be prepared. It is estimate that demolition of existing facilities would require disposal of approximately 806 cubic yards of materials (concrete and rebar, wood, roofing materials, piping, metal cabinets, etc.).^{21,22}

Because the project components are not located near each other, construction-related trucks associated with each project component (treatment plant, pump station, and distribution pipelines) would travel on

²¹ SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

²² The material disposal calculation assumes the quantity is 5 percent of total estimated spoils/soils generated from the recycled water treatment facility and central reservoir facility construction activities.

different routes, except when pipeline construction occurs near the two proposed facilities. During these times, it is possible that concurrent construction activities could result in approximately 18 haul trucks per day, and up to 36 worker vehicles (light trucks) per day, traveling on the same routes.^{23, 24} Local and regional roadways would be used to haul construction materials; these routes would be designated based on the San Francisco Metropolitan Transportation Agency Truck Traffic Route Map.

A combination of electrical isolation, bonding of mechanical/push-on joints, cathodic²⁵ protection, and polyethylene encasement, as appropriate, would be used for corrosion protection of the new ductile iron pipelines and appurtenances between the facilities, reservoir, pump stations, and end users.²⁶

Following construction, disturbed areas would be repaved or otherwise returned to their general pre-project condition, which could include regrading of the site, revegetation of disturbed areas, and/or repaving.

SFPUC Standard Construction and Greenhouse Gas Reduction Measures

The SFPUC has established Standard Construction Measures²⁷ that would be implemented as part of all WSIP projects, including the proposed project. The main objective of these measures is to reduce impacts on existing resources to the extent feasible. The Standard Construction Measures include activities such as early identification of sensitive environmental resources in the project area and notification of businesses, owners, and residents in areas adjacent to the WSIP projects regarding the nature, extent, and duration of construction activities. The SFPUC would ensure that the proposed project's contract specifications contain uniform minimum provisions to address these issues. The SFPUC would also implement the following greenhouse gas measure in all contractor specifications, and implement the third measure during project planning and design, which, in addition to having other environmental benefits, would also help reduce greenhouse gas emissions:

- The SFPUC will require that all contractors maintain tire inflation to the manufacturers' inflation specifications.
- The SFPUC will implement a construction worker education program for the proposed project.
- Since this is a WSIP project that includes the construction of new buildings, the SFPUC has consulted with the SFPUC Power Enterprise's Energy Efficiency Group to incorporate all feasible energy efficiency best practice measures for unoccupied pump stations into the project design. The practices to be incorporated would include:

²³ In the event that haul trucks associated with distribution pipeline construction (average 5 trucks per day) near the Oceanside WPCP or the Central Reservoir sites (average 5 trucks per day, respectively) use the same haul routes at the same time, there could be up to 30 trucks per day traveling the same routes.

²⁴ SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

²⁵ Cathodic protection is used to prevent the corrosion of metal in underground pipelines. "Sacrificial" metallic anodes, consisting of small cables connected to the pipeline, are designed to corrode in place to prevent the pipeline from corroding.

²⁶ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUIW 30201), Draft Conceptual Engineering Report*, July 2014.

²⁷ San Francisco Public Utilities Commission (SFPUC), *Standard Measures to be Included in Construction Contracts and Project Implementation*, memorandum from Susan Leal, General Manager, and Tony Irons, Deputy General Manager, to Michael Carlin, Tom Franza, Barbara Hale, Harlan Kelly, Julie Labonte, Irina Torrey, Ivy Fine, and Tony Winnicker, February 7, 2007.

- Use of recommended lighting equipment and controls to achieve recommended illumination levels;
- Incorporation of natural lighting through skylights;
- Controlled, minimal exterior lighting;
- Use of variable frequency drives for pumps;
- Use of controls on ventilation equipment;
- Direct drive ventilation fans; and
- Use of weather-resistant materials to extend facility and equipment life

Construction Activities at the Oceanside WPCP

Site Preparation

Several existing facilities would need to be relocated or demolished to accommodate the proposed recycled water treatment plant and storage facilities. Two condensers associated with the heat, ventilation, and air conditioning (HVAC) system would be relocated to a site near the Administration Building.²⁸ Several features would be demolished, including pole light fixtures, concrete pads/pavement, irrigation and utility piping, an overflow discharge catch basin, and portions of a curbed landscape area. The retaining wall near the property boundary with the Armory site would be demolished. Specifically, approximately 150 linear feet of the 3-foot-high retaining wall would be removed and replaced with about 220 linear feet of temporary retaining wall (the new recycled water building would act as a retaining wall). Several small ornamental palm trees located within a planter in the parking area would be removed to accommodate project construction and it could be necessary to remove some trees and vegetation along a short stretch of pipeline between the recycled water treatment plant, the California Army National Guard parking lot, and Skyline Boulevard.

Excavation, Stockpiling of Soils, and Spoils Disposal

Construction of the proposed recycled water treatment plant and associated facilities would require extensive excavation and grading. Temporary storage of excavated materials could occur on the site, although due to the limited space available most materials would likely be off-hauled daily and disposed as necessary.²⁹

The maximum depth of excavation for the recycled water treatment plant and associated facilities would be about 25 feet below ground surface. Approximately 150 linear feet of shoring would be required for construction of the belowgrade MF/UF filtrate storage and treated water wet well. Construction of a wet well for recycled water storage would require a 25-foot-deep excavation. The excavation walls would be supported by conventional shoring methods, such as soldier piles and lagging,³⁰ which would prevent

²⁸ SFPUC, *San Francisco Westside Recycled Water Project (Project No. CUW 30201), Draft Conceptual Engineering Report*, October 2013.

²⁹ *Ibid.*

³⁰ A soldier pile and lagging system includes concrete-encased beams placed in drilled holes that extend below the bottom of the excavation. Timber lagging is placed between the beams to retain soil in the excavation sidewall as excavation proceeds.

the excavation sidewalls from becoming unstable. A new underground storage reservoir would be at a depth of 16-feet below grade and would store MF filtrate.

Construction of the overflow/brine discharge pipeline requires an approximately 6 foot wide and 8 to 12 feet deep trench. At the junction box, the depth of excavation would be approximately 10 feet below grade. Excavated soils would be used for trench backfill, and approximately 140 cubic yards of spoils would be offhauled. For up to four months during the construction period, the West Tunnel would be closed, and one northbound lane of the Great Highway would be closed from the West Tunnel to approximately 20 feet past the fenced enclosure around the junction box.

A soil investigation was conducted at the Oceanside WPCP in 2012. The investigation included the analysis of 13 composite samples from five soil borings completed within the footprint of the proposed treatment plant to depths of 30 feet.³¹ Based on the results, the excavated soil would be suitable for disposal as a nonhazardous waste and could also be used onsite as backfill material. If any soil contaminated with hazardous materials were to be encountered or if soil becomes contaminated during construction, it would be characterized, transported, and disposed of at an appropriate landfill in compliance with applicable federal, state, and local regulations.

Dewatering

Excavation for the recycled water treatment plant would occur above the groundwater table (which is generally encountered at a depth of about 40 feet below ground surface at this location). As a result, the project is not expected to encounter significant groundwater that would need to be pumped out of the trench. However, based on the presence of some shallow saturated soil, a limited amount of dewatering might be necessary to maintain a dry excavation for construction of the new features. Groundwater encountered would be discharged to the city's combined sewer system, which would require a permit from the SFPUC Wastewater Enterprise in accordance with Article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. This permit would contain appropriate water quality discharge standards and could require the installation of meters to measure the volume of the discharge.

Staging Areas

In addition to work area within the Oceanside WPCP, staging areas would also be required to accommodate contractors' construction-related equipment and materials storage (e.g., construction vehicles, building materials, pipes, fuels, lubricants, and maintenance work areas). Given the operational needs of the existing facilities and the space constraints at the Oceanside WPCP, onsite and offsite staging areas would be required. As shown in Figure 3-2, one staging area would be located onsite near the Westgate Berm in the northwestern portion of the project. Two offsite staging areas are proposed within the San Francisco Zoo overflow parking area and off the intersection of Zoo Road and Armory Road. In addition, construction worker parking would be provided at an existing parking lot located 0.5 miles southeast of the Oceanside WPCP site off of Harding Park Road.

³¹ AEW Engineering, *Westside Recycled Water Site, San Francisco, California, Environmental Investigation Report*, September 2012.

Site Access

Construction would typically generate up to approximately 5 trucks (10 one-way truck trips) per day (including delivery and off-haul trucks).³² Access to the Oceanside WPCP site would be provided through two tunnels, one on the east end of the site off of Highway 35 and the other on the west side of the site off of the Great Highway.

Construction Equipment

Table 3-2 shows the approximate equipment usage for construction activities at the Oceanside WPCP.

**TABLE 3-2
APPROXIMATE EQUIPMENT USAGE FOR CONSTRUCTION AT OCEANSIDE WPCP**

Equipment	Number of Each Equipment Type
Pavement breaker or concrete saw	1
Front-end loader	2
Large Excavator	2
Rubber-tired dozer	1
Regular dozer	1
Drill rig	1
Small roller compactor	1
Forklift	1
Small crane	1
Truck mounted drill rig	1
Generator	1
Mortar mixer	1
Asphalt paver	1
Concrete truck	3
Flatbed/pickup truck	2
Dump truck	5
Pickup or small vehicle	18

^a Most equipment would not operate continuously, except for the generator.

SOURCES: SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.; SFPUC, Personal Communication Regarding SFWRWP Transit Questions, July 31, 2014.

Project Workforce

Construction activities at the Oceanside WPCP site would require approximately one crew of up to 18 workers on a given day, traveling to and from the worksites in up to 18 vehicles (i.e., assuming that all workers would travel to and from the project site in their own vehicles), corresponding to each of the small vehicles listed in Table 3-2.³³

³² SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

³³ Ibid.

Construction Activities at the Central Reservoir

Site Preparation

Construction at the Central Reservoir site could require pavement removal. In addition, vegetation might need to be removed adjacent to the Central Reservoir facility if the entrance needs to be widened or shifted to the east, and at a stretch of pipeline between the Central Reservoir pump station and Overlook Drive or John F. Kennedy Drive. During construction activities, the SFRPD would temporarily relocate wood-waste and composting activities from the Central Reservoir site to the West End Dump.

Excavation, Stockpiling of Soils, and Spoils Disposal

The maximum depth of excavation for the proposed new underground reservoir would be about 25 feet. Shoring methods such as steel soldier piles and lagging or properly interlocked steel sheetpiling would be used. The water level in the existing reservoir might be lowered during construction to reduce stress on the reservoir, and the reservoir would be underpinned if necessary to provide additional support. It is expected that much of the excavated soil could be used as backfill material, supplemented as necessary with structural fill material (e.g., imported sand and aggregate subbase). Approximately 12,300 cubic yards of spoils/soils would be excavated.³⁴ Some imported or existing site materials stored offsite would be brought onsite for the structural backfill.³⁵

A soil investigation was conducted at the Central Reservoir site in 2010. The investigation included the analysis of four composite soil samples collected from two test pits excavated to a depth of about 15 feet and 10 composite soil samples from six soil borings completed to depths of up to 49.5 feet.³⁶ Based on that investigation, it is expected that much of the spoils material would be nonhazardous waste and would be suitable for reuse within the project construction area. However, some soil could require disposal as a California hazardous waste at a facility such as the Kettlemen Hills facility.

Dewatering

It is not expected that substantial near-surface groundwater would be encountered during construction of facilities at the Central Reservoir site. However, if water were to accumulate in an open construction trench or driving/receiving pit as a result of groundwater seepage or precipitation, it would be necessary to dewater the excavations to provide a dry construction work area. As described above for activities at the Oceanside WPCP, groundwater produced during construction-related dewatering would be discharged to the city's combined sewer system under a permit from the SFPUC Wastewater Enterprise.

Staging Areas

Construction work and staging areas to accommodate contractors' equipment and materials storage would be located onsite within the Central Reservoir site.

³⁴ Ibid.

³⁵ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

³⁶ AEW Engineering, *Golden Gate Park Reservoir Project, San Francisco, California, Draft Soil Investigation Report*, August 2010.

Site Access

Construction would typically generate approximately 5 trucks (10 one-way truck trips) per day (including deliveries and off-haul trucks).³⁷ Access to the Central Reservoir site would be provided via the existing entrance at the northern end of the site off of Overlook Drive.

Construction Equipment

Table 3-3 shows the approximate equipment usage for construction activities at the Central Reservoir site

**TABLE 3-3
APPROXIMATE EQUIPMENT USAGE FOR
CONSTRUCTION AT THE CENTRAL RESERVOIR SITE**

Equipment	Number of Each Equipment Type
Pavement breaker or concrete saw	1
Frontend loader	2
Excavator	2
Rubber-tired dozer	1
Regular dozer	1
Small roller compactor	1
Forklift	1
Small crane	1
Generator	1
Asphalt paver	1
Concrete truck	3
Flat-bed truck	2
Dump truck	5
Pickup trucks or small vehicles	18

^a Most equipment would not operate continuously, except for the generator.

SOURCE: SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

Project Workforce

Construction activities at the Central Reservoir site would require approximately one crew of up to 18 workers on a given day, traveling to and from the worksites in up to 18 vehicles (i.e., assuming that all workers would travel to and from the project site in their own vehicles), corresponding to each of the small vehicles listed in Table 3-3.³⁸

³⁷ SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

³⁸ Ibid.

Pipeline Construction

Table 3-4 provides a summary of construction information about each pipeline segment, including the construction footprints for the pipeline, trench, and driving/receiving pits and the estimated excavation volumes.

Open-Trench Construction

For pipeline construction, a 10- to 16-foot-wide construction corridor would normally be necessary. The open-cut trench method would generally be used for most of the pipeline construction. This method involves the following steps: delineating the work area and clearing the ground surface; grading or pavement cutting; excavating the trench; placing the pipe; backfilling the trench; and restoring the work surface. The location of underground utilities would be identified prior to excavation pursuant to state regulation and relocation of underground utilities and other subgrade structures could be required.

Once the open-cut trench is excavated and shored, structural fill bedding material (sand) would be placed along the bottom of the trench, and the new pipe section would then be lowered by crane or backhoe and fitted into place using self-locking push-on pipe joints. Prior to installation, the joints would be inspected. The pipelines would also require tee(s), bends, or elbows and other fittings. To prevent corrosion, a polyethylene encasement in an asphaltic coating would be applied around the pipelines prior to installation. Cathodic protection in the form of a sacrificial anode system would be employed for all underground pipelines.

If existing trees were to prevent a straight open-cut pipeline trench, the alignment would be offset to avoid the trees or the trenchless method would be used. It would be necessary to dewater trenches in areas where groundwater is encountered (see the section below entitled “Dewatering” for further information).

Additionally, the project proposes to install gates valves and other appurtenances. Air release valves and blowoff assemblies would be installed at the following locations: one at each of the Golden Gate Park, Lincoln Park and the Presidio connection points; Golden Gate Panhandle end point. Fifteen tee connections would be installed at following intersections: Sloat Boulevard/Skyline Boulevard; Sloat Boulevard/37th Avenue; 37th Avenue/Vicente Street; 36th Avenue/Vicente Street; 36th Avenue/Lawton Street; 36th Avenue/34th Avenue; Middle Drive West/Overlook Drive; 25th Avenue and Cabrillo; 24th Avenue/Cabrillo Street; 24th Avenue and Anza Street; 16th Avenue and Anza Street; Lake Street and 16th Avenue; 14th Avenue and Lake Street; 36th Avenue and Cabrillo Street; and 36th Avenue and Clement Street.

Trenchless Construction

The pipeline route would cross the L-Taraval San Francisco Municipal Railway (MUNI) light rail line at the intersection of Taraval Street and 36th Avenue and the N-Judah MUNI light rail line at the intersection of Judah Street and 34th Avenue. Trenchless construction (the jack-and-bore method) would occur at these locations. Trenchless construction would allow the pipelines to be installed under the light rail lines or other underground utilities without disturbing them. For trenchless construction, 15- by 30-foot jacking and receiving pits would be excavated for each MUNI light rail crossing. Similar or smaller sized pits would be

**TABLE 3-4
SUMMARY OF PROPOSED PIPELINE CONSTRUCTION REQUIREMENTS**

Pipeline Segment/Location	Construction Task	Construction Area ^a	Depth of Excavation
Recycled Water Treatment Plant to Central Reservoir	<ul style="list-style-type: none"> Install 16-inch-diameter ductile iron pipeline using open-cut excavation 	20,330 linear feet x 3-foot-wide trench	6 feet
L-Taraval San Francisco Municipal Railway (MUNI) light rail line	<ul style="list-style-type: none"> Auger bore or pipe ramming (trenchless) under rail line 	Pipeline length: 100 linear feet Driving pit: 10 feet wide x 30 feet long x 20 feet deep Receiving pit: 10 feet wide x 10 feet long x 20 feet deep	20 feet (maximum)
N-Judah MUNI light rail line	<ul style="list-style-type: none"> Auger bore or pipe ramming (trenchless) under rail line 	Pipeline length: 100 feet Driving pit: 10 feet wide x 30 feet long x 20 feet deep Receiving pit: 10 feet wide x 10 feet long x 20 feet deep	20 feet (maximum)
Central Reservoir to 25th Avenue and Cabrillo Street	<ul style="list-style-type: none"> Install 16-inch-diameter ductile iron pipeline to a wye^b at intersection using open-cut excavation 	2,728 linear feet x 3-foot-wide trench	6.5 feet
25th Avenue and Cabrillo Street to Lincoln Park	<ul style="list-style-type: none"> Install 8-inch-diameter ductile iron pipeline using open-cut excavation 	7,120 linear feet x 3-foot-wide trench	6.5 feet
25th Avenue and Cabrillo Street to Presidio	<ul style="list-style-type: none"> Install 16-inch-diameter ductile iron pipeline using open-cut excavation 	7,490 linear feet long 3-foot-wide trench from 25th and Cabrillo to Presidio Golf Course Pump Station 2-foot-wide trench from Presidio Golf Course Pump Station to the National Cemetery 2-foot-wide trench for the Public Health Service District connection	6.5 feet deep from 25th and Cabrillo to Presidio Golf Course Pump Station 4 feet deep from the Presidio Golf Course Pump Station to the National Cemetery 4 feet deep for the Public Health Service District connection
Panhandle Distribution System	<ul style="list-style-type: none"> Install 8-inch-diameter ductile iron pipeline using open-cut excavation connecting to each of the three existing irrigation water supply booster pumps 	4,770 linear feet x 3-foot-wide trench	6 feet

^a "Construction Area" refers to the areas of construction disturbance associated with pipeline construction.

^b A fitting with three openings. The side inlet pipe enters at an angle other than 90 degrees.

SOURCES: SFPUC, Westside Recycled Water Project Air Quality Estimate Data, Excel file, September 4, 2013; SFPUC, *Westside Recycled Water Project Additional CEQA Checklist Information Request*, July 30, 2013; SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

excavated for other intersection or utility crossings. If applicable, these pits would be shored for stability, as discussed below, and would be dewatered if groundwater were encountered. For pipelines to be installed using trenchless technology, the trench depth would range from 15 to 20 feet below the pavement surface, depending on the vertical locations of existing utilities.³⁹

The pipeline segments would be installed within protective steel pipe casings and would also be provided with cathodic protection.

Excavation, Stockpiling of Soils, and Spoils Disposal

The trench would generally be 3 feet wide and 4 feet to 6.5 feet deep.^{40,41,42} The depth of the trench is based on the regulatory requirement to maintain a minimum 1-foot vertical and 4-foot horizontal clearance between the recycled water pipelines and nearby potable water mains. Where there are no potable water mains, the trench depth could be reduced to 4 feet or less depending on the size of the pipeline. The excavated soil would be used as the primary source of backfill material, supplemented as necessary with structural fill materials (e.g., imported subbase aggregate and sand).

Excavations would be appropriately shored in accordance with the regulatory requirements of the California Department of Industrial Relations, as specified in Title 8 of the California Code of Regulations, which requires shoring for trenches that are 5 feet or greater in depth to prevent the surrounding soil and adjacent structures from collapsing. Shoring would be performed using methods such as speed shoring (plywood siding with a cross-brace system), prefabricated trench boxes along the inside of the trench, jet grouting with soldier pile reinforcement, or drilled soldier piles with lagging.

Pipeline construction would require excavation of approximately 38,271 cubic yards of soil, of which approximately 28,478 cubic yards would be reused to backfill trenches and jacking and receiving pits and the remainder would be disposed of offsite. Up to approximately 5,931 cubic yards of imported bedding material (e.g., crushed rock or sand), asphalt concrete, and concrete base would be used.⁴³ For pipelines to be installed using trenchless technology, the bore depth would range from 15 to 20 feet below the pavement surface depending on the vertical locations of existing utilities.⁴⁴

Given that the project would be constructed within city streets, onsite stockpiling would be limited and it is thus anticipated that, at the end of each day, excess excavated soil would be transported and stockpiled within the construction area for reuse as part of the project or transported for disposal at an appropriate landfill.

³⁹ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

⁴⁰ Ibid.

⁴¹ SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

Dewatering

It is not expected that substantial near-surface groundwater would be encountered at any of the pipeline alignments. However, if water were to accumulate in an open construction trench or in a jacking and receiving pit as a result of groundwater seepage or precipitation, dewatering of the construction work area would be required. As described above for activities at the Oceanside WPCP, groundwater produced during construction-related dewatering would be discharged to San Francisco's combined sewer system, under a permit from the SFPUC Wastewater Enterprise.

Staging Areas

For pipeline construction, most project work and staging is expected to occur within the 10- to 16-foot-wide construction corridor.⁴⁵ The staging requirements for pipeline work in city streets would be met by using local parking lane areas as much as possible. The contractor would be allowed to store daily material onsite per requirements listed in contract specifications. The contractor would store materials in their yard or rent a nearby empty lot as staging area, if available in the vicinity of the project.⁴⁶ The staging areas would be occupied for the duration of the construction period for the associated pipeline segment. Staging areas would be relocated as necessary to follow the pipeline construction as it progresses, block-by-block, along the pipeline route.

Site Access

Pipeline construction would require a total of approximately 1,300 trucks, an average of up to approximately 8 one-way truck trips per day.⁴⁷ Existing public roadways or unpaved service roads would provide the primary access routes to all pipeline construction areas and staging areas.

Construction Equipment

Table 3-5 shows the approximate equipment usage for pipeline construction activities.

Project Workforce

Construction activities at the Central Reservoir site would require three crews of six workers each.⁴⁸

⁴⁵ SFPUC, *SFPUC Response V2 to Information Request*, Excel file, April 18, 2014.

⁴⁶ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

⁴⁷ SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.

⁴⁸ Ibid.

**TABLE 3-5
APPROXIMATE EQUIPMENT USAGE FOR PIPELINE CONSTRUCTION**

	Construction Usage Per Segment - Number of Each Equipment Type
Concrete saw	3
Large trucks/dump trucks	9
Backhoe/excavator ^a	3
Front-end loader	3
Rubber-tired dozer	1
Regular dozer	1
Handheld compactor	2
Small crane	2
Asphalt paver	2
Pickups or small vehicles ^b	12
Sheeting driver	1
Air compressor	1
Grader	1
Paving equipment	1
Tandem roller	1
Street sweeper	
Asphalt profiler	2
Static roller	2
Brush chipper	1
Vacuum sweeper	1
Water truck	1
Equipment for trenchless pipeline construction ^c	1

^a An excavator would be used for excavating and backfilling the pits needed for the trenchless pipeline construction.

^b Pickup use is for short haul trips at construction areas, and does not include worker commute trips.

^c Trenchless pipeline construction would be performed for the two MUNI light rail crossing segments. Equipment usage represents the auger/boring machinery and arc welder only. The other equipment needed is accounted for in the table.

SOURCE: SFPUC, Westside Recycled Water Project Air Quality Estimate Data, Excel file, September 4, 2013.

Post-construction

Following compaction of the backfill, the work surface area would be restored to its general preconstruction condition in accordance with San Francisco Department of Public Works (SFPDW) design standards.

In addition, for any streets that have been reconstructed, repaved, or resurfaced by any entity within the previous 5-year period, Section 2.4.21 of the Public Works Code requires project proponents to obtain a permit or waiver prior to performing any excavation activities.⁴⁹ The SFPUC coordinated with the SFPDW to consider any major repaving projects (current/upcoming) and has designed the proposed pipeline route to substantially avoid such streets. However, because project construction in some areas would affect recently improved streets, a written request would be sent to the SFPDW to obtain a permit prior to construction on such streets. Further, prior to pipeline construction, the SFPUC's contractor

⁴⁹ CCSF, Article 2.4: Excavation in the Public Right-of-Way, Public Works Code, Approved July 13, 2014. Available online at http://sfdpw.org/ftp/uploadedfiles/sfdpw/boe/manager/Excavation_Code.pdf.

would coordinate with the SFPDW and Department of Parking and Traffic to obtain any necessary construction permits; and would coordinate to conduct work simultaneously with the SFPDW and SFMTA. Construction activities would also be coordinated with MUNI's Street Operations office to reduce any impacts on transit operations. All temporary construction easements and permits, where applicable, would be obtained prior to starting construction.

Other Improvements

The three existing aboveground booster pumps in the Panhandle would be replaced/modified to provide the appropriate pressure for the irrigation system. The existing irrigation pump station at Lincoln Park would be used to provide the required discharge pressure for the irrigation system and could require some upgrade of pump system controls to optimize system operations.⁵⁰

Recycled Water Facilities for the San Francisco Zoo

Construction requirements for the distribution pipeline necessary to provide recycled water to the Zoo, should it become a recycled water customer in the future have not been determined at this time. However, it is likely that pipeline construction would be similar to that described above for the distribution pipelines. Similarly, construction of a new Zoo pump station and underground reservoir would likely be similar to that described for the Central Reservoir facilities.

Construction Schedule

Project construction is expected to begin in approximately June 2016 and end in approximately June 2019. Construction of the recycled water treatment plant would require approximately 25 months (September 2016 through June 2019);⁵¹ construction of components at the Central Reservoir would require approximately 16 months (June 2016 to September 2017); and construction of the distribution pipeline components would require approximately 18 months (October 2016 to March 2018).

In advance of project construction, the SFPUC would provide a 10-day public notice describing project construction activities, schedule information, anticipated effects (such as detours or temporary closure of parking spaces), and contact information. The notice would be distributed to adjacent properties⁵² and included on the SFPUC website along with additional information on the project.

As stated in Section 3.6.4, Pipeline Construction, active pipeline excavation would continue to advance along the pipeline alignment. However, construction activities might not be continuous. For example, there could be up to several days between the completion of excavation and the beginning of pipe installation. The range of daily and weekly progress takes into account the potential for noncontinuous construction activities. Typically, pipeline construction using the open-cut trench method progresses at a rate of 100 to 300 feet per day (on average).⁵³ In residential areas, the pipeline would likely be installed at an average rate

⁵⁰ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

⁵¹ SFPUC, *San Francisco Westside Recycled Water Project (Project No. CUW 30201), Draft Conceptual Engineering Report*, October 2013.

⁵² Those parcels adjacent to the work area.

⁵³ SFPUC, S. MacPherson, Environmental Project Manager, Personal Communication with J. Gillman, SFPUC, December 22, 2014 (Presented to ESA on December 23, 2014).

of 50 feet or more per day; on busy arterial roads, the average rate would be approximately 30 to 35 feet per day.⁵⁴ It is estimated that the duration of construction at any one location would be approximately two weeks, including repaving and other finish work. Subsequent final paving would progress at a rate of approximately 300 feet per day and would occur after a substantial length of pipeline had been constructed. For the pipelines in city streets, parking lanes may be utilized for staging and construction, as well as possible closure of one traffic lane. Full closure of city blocks could occur during pipeline construction; however resident and emergency access would be maintained at all times.⁵⁵ Pipeline construction could require temporary closure of a trail located north of Lincoln Way/34th Avenue in Golden Gate Park (between Lincoln Way and Middle Drive West) for up to 2 months, as well as potential closure of narrow park roadways, such as Overlook Drive, during pipeline construction.

Construction hours would vary depending on the construction locations. Construction activities are proposed to occur primarily during the daytime hours (7:00 a.m. to 5:00 p.m.⁵⁶), 5 days a week on non-holiday weekdays (Monday through Friday); however, the City of San Francisco allows construction between 7:00 a.m. and 8:00 p.m., seven days a week such that work could occur during this time as necessary (i.e., to meet critical project milestones). Restricted construction hours could be required by SFMTA and/or San Francisco Recreation and Parks Department in the vicinity of the Golden Gate Park Panhandle, particularly during special events. Additionally, SFPUC, as standard policy, coordinates in advance with local school districts and would avoid construction during peak drop off/pick up times and during school events. Normally, all construction activities along high-volume streets, such as Oak Street, would be suspended from 7:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m.

Along major MUNI routes, work would be performed in accordance with contract requirements to avoid delays in MUNI service. Nighttime or weekend construction work is not proposed. Trenchless pipeline construction would require approximately 4 weeks per MUNI crossing. Final paving of these areas would be performed in conjunction with the final paving for that pipeline segment.

3.4.3 Operations and Maintenance

Operations

Operation of the recycled water treatment plant would require approximately four full-time employees. Operation and maintenance of other project facilities would be performed by current SFPUC employees and would be similar to existing maintenance activities that already occur at the Central Reservoir or for the in-street pipelines. The systems used to supply water for irrigation and commercial uses would operate year-round, with peak production occurring during the dry months, usually April through October. When demand is low, portions of the treatment facilities could be placed in standby mode or operate at reduced output. Storage reservoirs in the distribution system would be used to balance daily

⁵⁴ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

⁵⁵ Project schedule and phasing would be coordinated with the contractor. In the event that the contractor mobilizes multiple crews, multiple blocks may be closed at the same time; however it is assumed that the blocks would be in separate locations, not consecutive.

⁵⁶ Truck and worker trips at project facility sites would end at 4:30 p.m. However, trucks leaving the sites at 4:30 p.m. would not reach their destinations until about 5:00 p.m.

demands. The primary pump station at the proposed recycled water treatment plant would operate as needed to meet demand and to fill reservoirs in the distribution system. The pump station in Golden Gate Park and the booster pumps along the Panhandle would operate on an as-needed basis to maintain pressure in the system. Power at the Central Reservoir facility could include battery units, auxiliary power supplies, uninterruptible power supplies, or generators.⁵⁷ Trucks would deliver chemicals to the recycled water treatment plant at a frequency of approximately 4 deliveries (by 4 trucks) per week at peak/build out production (i.e., about 1 truck per day). **Table 3-6** below shows the anticipated chemical usage required to operate the recycled water treatment plant.

**TABLE 3-6
ANTICIPATED CHEMICAL USAGE REQUIRED FOR
OPERATION OF THE RECYCLED WATER TREATMENT PLANT**

Chemical	Concentration	Volume (gallons, future demand)	Days of Storage/ Delivery Frequency
Sodium Hypochlorite	12.5%	6,400	14
Citric Acid	50%	1,300	14
Caustic Soda (Sodium Hydroxide)	25%	160	30
Ferric Chloride	43%	1,100	14
Sulfuric Acid	98%	700	30
Sodium Bisulfite	45%	400	30
Antiscalant (vendor specific)	100%	400	30
Liquid Lime	45%	600	14

SOURCE: SFPUC, *SFPUC Response V2 to Information Request*, July 30, 2013.

Water Quality Objectives

The irrigation demands identified in Section 3.1.1 are currently being met through the use of groundwater pumped from local wells in Golden Gate Park, and through the use of potable water for Lincoln Park, the Presidio, and the Panhandle portion of Golden Gate Park. The SFPUC determined that chloride and sodium concentrations are the key parameters of concern for these customers; therefore, water quality objectives were established for the project to minimize chloride, sodium, ammonia, and nutrient concentrations (see **Table 3-7**).⁵⁸

The use of recycled water for lake fill presents additional concerns related to water quality in terms of the potential introduction of nutrients and ammonia. Nutrients are of concern in lake applications as they can lead to an increase in the growth of algae. Ammonia, even in low concentrations, is toxic to aquatic species. For the Westside Recycled Water Project, the SFPUC established water quality objectives for ammonia and nutrients (both of which would be removed by reverse-osmosis treatment) to minimize impacts on Golden Gate Park lakes.⁵⁹

⁵⁷ SFPUC, San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report, July 2014.

⁵⁸ RMC Water and Environment (RMC), *Westside Recycled Water Project Description, Technical Memorandum*, June 17, 2009.

⁵⁹ SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

**TABLE 3-7
WESTSIDE RECYCLED WATER QUALITY OBJECTIVES**

Parameter	Golden Gate Park Groundwater	Oceanside Effluent	Westside Project Objective
Sodium (mg/L)	27	104	27
Chloride (mg/L)	41	134	41
Total Nitrogen (mg-N/L)	8.5	38	10
Phosphorus, Ortho-P (mg/L)	NA	5.0	1
Ammonia (mg-N/L)	0.07	38	2

SOURCE: SFPUC, *San Francisco Westside Recycled Water Project-Distribution System (Project No. CUW 30201), Draft Conceptual Engineering Report*, July 2014.

Proposed Green Building Features

The project would incorporate green building features, including energy efficiency, water efficiency, stormwater management, alternative transportation opportunities, green products and “low-emitting materials”, and materials recycling.⁶⁰ LEED New Construction certification primarily relates to new commercial office buildings and the LEED certification can be difficult to obtain for projects like the Westside Recycled Water Project because energy-reduction credits tend to be oriented toward the characteristics of energy use in office buildings. The SFPUC would perform site-specific cost-effectiveness evaluations of alternative technologies to increase the efficiency of the building shell, lighting, and HVAC systems.

To meet energy efficiency requirements, the project’s facilities would be constructed in compliance with California’s Energy Efficiency Standards, as specified in the California Code of Regulations, Title 24, Part 6. All facilities would utilize renewable energy in the form of hydroelectric power from the Hetch Hetchy Regional Water System for project operations under normal conditions. All lighting would comply with the 2013 Title 24 Energy Conservation Standard, or a more rigorous standard if applicable at the time of construction. Furthermore, LED-type lights (i.e., light-emitting diode) would be used for all outdoor facilities.

To achieve water efficiency of an estimated 30 percent reduction, recycled water would be used for irrigation and toilet/urinal needs at the recycled water treatment plant site. All new water closets, urinals, and faucets installed under the project would comply with the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code.

The SFPUC fleet and contractor diesel vehicles used during construction and operation of the project would use biodiesel fuel. SFPUC staff located at existing and proposed SFPUC facilities would perform operations and maintenance activities for the project, so existing SFPUC fleet vehicles might be utilized. However, if any new SFPUC fleet vehicles are required for project operations and maintenance activities, new purchases would be consistent with the vehicle efficiency requirements specified in California’s Energy

⁶⁰ San Francisco Planning Department, Compliance Checklist for Greenhouse Gas Analysis, Table 2, Municipal Projects, SFPUC San Francisco Westside Recycled Water Project, June 16, 2014. This document is available for review as part of Case File No. 2008.0091E at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103.

Efficiency Standards. Similarly, all contracts issued for construction of the project would incorporate biodiesel and best available control technology requirements into the contract specifications. Bicycle storage would be provided for 5 percent of the building addition.

Some of the products needed for project implementation fall under Approved Green Products List categories, including but not limited to: building materials, fuel, landscaping products, lighting, and paint and lacquer thinner. These products would be utilized during the project construction phase; therefore, construction specifications would include the requirement to use products from the Approved Green Products List when feasible. In addition, SFPUC staff would use products from the Approved Green Products List during project operations and maintenance activities when feasible. Project design would incorporate the use of LEED-compliant, low-emitting materials, where available. Such products include rubber floor adhesives, ceramic tile adhesives, cove base adhesives, sealants, and general use paints. All contracts associated with project construction would prohibit the use of the ordinance-listed tropical hardwoods and virgin redwood. All material removed from the project sites, including concrete, metal, and green waste, would be recycled to the maximum extent feasible, with a goal of 75 percent diversion or disposal at an appropriate landfill, in compliance with applicable federal, state, and local regulations. In addition, the contractor would prepare a construction and demolition debris management plan.

Maintenance

The SFPUC would manage all proposed facilities, including those located within SFRPD-managed areas. Longer-term maintenance of the facilities would include removing and repairing (or replacing) pumps, valves, and other equipment. **Table 3-8** details the typical equipment operating life expectancies and, by implication, the replacement intervals of the recycled water project facility equipment and pipeline components.

**TABLE 3-8
OPERATING LIFE EXPECTANCIES**

Facility Equipment or Component	Estimated Operational Life (years)
Treatment/Distribution Pumps	17.5
Facility Piping	50
Facility Piping Valves	50
Underground Piping	45
Underground Valves	45
Electrical Switchgear	22.5
Solid-State Starters and Variable-Frequency Drive Equipment	9
Instrumentation and Controls	12.5
Communications Equipment (Supervisory Control and Data Acquisition)	10
Chemical Treatment Equipment	12.5
Laboratory/Monitoring Equipment	6
Structures – Concrete	50
Membrane Filters	20
Reverse-Osmosis Filters	20
Ultraviolet Reactors	20
Decarbonators	20

NOTE: Does not include expendables (like lamps inside the UV reactors or cartridges inside the MF or RO filters).

SOURCE: SFPUC, CUW 30102 – North Westside Basin Local Supply (Groundwater Project B), CER Checklist for Environmental Review (Project Description Requirements), March 25, 2009.

3.5 Intended Uses of the EIR

This is a project-specific EIR, intended to provide review under CEQA for the proposed project facilities. In addition to describing the proposed project and required approvals, this EIR analyzes potential environmental impacts of the proposed project, and identifies mitigation measures where those impacts are significant, addresses cumulative adverse impacts to which the proposed project could make a substantial contribution, and evaluates alternatives to the project that could avoid or reduce significant impacts while still meeting most of the project's objectives.

3.5.1 Approvals Required

The SFPUC could be required to obtain the permits and approvals described below for project construction and operation.

Federal

- The Presidio Trust approval of a water supply agreement with the SFPUC that would set forth the terms of supply of the recycled water.
- U.S. Environmental Protection Agency and San Francisco Bay Area Regional Water Quality Control Board renewal of National Pollutant Discharge Elimination System Permit (Order No. R2-2009-0062, NPDES No. CA0037681).

State

- California Army National Guard approval of an amendment to the lease with the SFPUC to allow a portion of the Armory site to be used for the project.
- State Water Resources Control Board (SWRCB) Stormwater General Construction Permit and Stormwater Pollution Prevention Plan, if more than 1 acre of land is disturbed.⁶¹
- SWRCB Water Quality Order No. 2009-0006-DWQ, General Waste Discharge Requirements for Landscape Irrigation Uses of Recycled Water.
- SWRCB consideration for Clean Water State Revolving Fund loan and review of environmental review requirements that must be completed to apply for a loan.
- California Coastal Commission (CCC), issuance of Coastal Development Permit (a portion of the proposed pipeline would pass through the Coastal Commission's retained permit jurisdiction south of Sloat Boulevard associated with the former tidelands connecting Lake Merced with the ocean [see Figures 3-1 and 3-2]). The CCC may also assert regulatory authority over change in effluent discharge at the outfall.

Local

- San Francisco Planning Commission certification of the Final EIR, issuance of a Coastal Development Permit, and determination of consistency with the San Francisco General Plan.

⁶¹ Applicable to areas that do not drain to the city's combined sewer system.

- SFPUC construction contracts and other project implementation actions.
- San Francisco Board of Supervisors consideration of any appeals of the Planning Commission's certification of the Final EIR, appropriation of project funding, and approval of new structure in Golden Gate Park. (Note: Charter Section 4.113 requires a two-thirds vote of the Board of Supervisors for construction of any new structures in the park).
- SFRPD approval of the agreement with the SFPUC to construct facilities for recycled water in Golden Gate Park and recommendation to the Board of Supervisors on construction of new structures in Golden Gate Park.
- San Francisco Arts Commission approval of exterior design of structures on city property.
- SFDPW and San Francisco Municipal Transportation Agency approval to construct transmission pipelines within city streets.
- SFPUC Wastewater Enterprise permit under Article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, in the event of groundwater dewatering activities.

CHAPTER 4

Plans and Policies

4.1 Overview

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15125(d), this chapter describes land use plans and policies generally and the manner in which they apply to the San Francisco Westside Recycled Water Project (project), and identifies the project's potential to conflict with those plans or policies adopted for the purpose of avoiding or mitigating environmental effects. Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the context of CEQA environmental review, in that the intent of CEQA is to determine physical effects associated with a project. Many of the plans of the City and County of San Francisco (CCSF) and the other relevant jurisdictions contain policies that address multiple goals pertaining to different resource areas. To the extent that physical environmental impacts of a proposed project could result from conflicts with one of the goals related to a specific resource topic, such impacts are analyzed in this Environmental Impact Report (EIR) in the respective topical sections in Chapter 5 (Cultural and Paleontological Resources, Transportation and Circulation, Noise, Air Quality, and Hydrology and Water Quality) and Appendix 1, Section E (other topics).

Land use plans typically contain numerous policies emphasizing differing legislative goals, and an interpretation of consistency requires a balancing of all relevant policies. The board or commission that enacted the plan or policy determines the meaning of such policies and how individual projects satisfy those policies at the time it considers the approval of the project. Whether a project is consistent with particular plans will be determined at the time of project approval by the agency charged with making that consistency determination. In the case of this project, the Planning Department or Planning Commission will evaluate the proposed project in accordance with the *San Francisco General Plan* (General Plan), including Priority Policies, the bicycle plan, and the local coastal plan. The Recreation and Park Commission will review the proposed project in accordance with provisions of the *Golden Gate Park Master Plan* (Master Plan), with Board of Supervisors' approval for the construction of project facilities in Golden Gate Park. The San Francisco Public Utilities Commission (SFPUC) will evaluate the project in accordance with various adopted policies as discussed below. Regional planning agencies will evaluate the project in accordance with the recently adopted *Plan Bay Area*. In each case, the approving or reviewing agency will consider any potential inconsistencies between the project and adopted plans or policies in the context of all applicable objectives and policies and will determine consistency based on a balancing of relevant policies as part of the decision process.

This chapter addresses the following plans and policies:

- **Section 4.2.1, CCSF.** *San Francisco General Plan*, including the *Western Shoreline Area Plan*, *Accountable Planning Initiative*, and *San Francisco Bicycle Plan*.

- **Section 4.2.2, SFPUC.** *SFPUC Strategic Sustainability Plan.*
- **Section 4.2.3, San Francisco Recreation and Parks Department (SFRPD).** *Golden Gate Park Master Plan, Park Code Section 3.19, Water Use Efficiency and Recycled Water.*
- **Section 4.2.4, Other Plans and Policies.** The SFRPD's *Significant Natural Resource Areas Management Plan* (SNRAMP).
- **Section 4.2.5, Regional Plans and Policies.** Plan Bay Area Sustainable Communities Strategy, Association of Bay Area Governments' "Projections," Bay Area Air Quality Management District's (BAAQMD) *2010 Clean Air Plan*, Metropolitan Transportation Commission's *Regional Transportation Plan*; San Francisco Bay Conservation and Development Commission's *San Francisco Bay Plan*; San Francisco Regional Water Quality Control Board's *San Francisco Basin Plan*; and Presidio Trust's *Management Plan*.

Permit requirements are described in Chapter 3, Project Description, Section 3.5. In some cases, these requirements include permits to be obtained from local jurisdictions for specific activities or to comply with specific ordinances. Sections 4.1 through 4.2 of this EIR describe pertinent resource-specific plans and policies.

4.2 Plans and Policies Relevant to the Project

4.2.1 CCSF Plans and Policies

The proposed project is subject to the *San Francisco General Plan*, which provides policies and objectives to guide land use decisions. In addition, the San Francisco City Charter and other San Francisco plans and policies guide SFPUC decisions. These plans include the General Plan, as amended, which sets forth the city's comprehensive, long-term planning land use policy; the *Western Shoreline Area Plan*, the local coastal plan, which is part of the *General Plan* and provides policies and objectives for the western portion of San Francisco; the Accountable Planning Initiative, which establishes Priority Policies to guide decision-makers in balancing the objectives of the General Plan; and the *San Francisco Bicycle Plan*, which includes a citywide transportation plan and specific bicycle improvements.

4.2.1.1 San Francisco General Plan

The General Plan provides general policies and objectives to guide land use decisions. The General Plan contains 10 elements—Commerce and Industry, Recreation and Open Space, Housing, Community Facilities, Urban Design, Environmental Protection, Transportation, Air Quality, Community Safety, and Arts—that set forth goals, policies, and objectives for the physical development of San Francisco. The proposed project would not obviously or substantially conflict with any General Plan goals, policies, or objectives. The compatibility of the proposed project with the General Plan goals, policies, and objectives that do not relate to physical and environmental issues will be considered by decision-makers as part of their assessment of whether to approve or disapprove the proposed project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the project.

4.2.1.2 Western Shoreline Area Plan

The *Western Shoreline Area Plan*, an area plan within the General Plan, is the CCSF's plan for the Local Coastal Zone established by the California Coastal Act of 1976. The *Western Shoreline Area Plan* includes objectives and policies pertaining to open space in the area covered by the plan. The plan area extends approximately 6 miles, from Fort Funston to the Point Lobos recreational area, and includes the Lake Merced and Zoo areas. Policies related to the Lake Merced area include preserving recreational facilities, passive activities, playgrounds, and vistas of the Lake Merced area; maintaining a recreational pathway around the lake for multiple uses; and allowing only those activities that would not adversely affect the lake's water quality as a standby reservoir for emergency use. Zoo plan area policies relate to improvement in the quality of the Zoo and its relationship to the coastal zone recreational system.

4.2.1.3 Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code to establish the following eight priority policies:

1. Preservation and enhancement of neighborhood-serving retail uses
2. Protection of neighborhood character (see Appendix A, Section E.1, Land Use and Land Use Planning, Question 1c)
3. Preservation and enhancement of affordable housing (see Appendix A, Section E.3, Population and Housing, Question 3b, with regard to housing supply and displacement issues)
4. Discouragement of commuter automobiles (see Appendix A, Section E.5, Transportation and Circulation, Questions 5a, 5b, and 5f)
5. Protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (see Appendix A, Section E.1, Land Use and Land Use Planning, Question 1c)
6. Maximization of earthquake preparedness (see Appendix A, Section E.14, Geology and Soils, Questions 14a through 14d)
7. Landmark and historic building preservation (see Appendix A, Section E.4, Cultural and Paleontological Resources, Question 4a)
8. Protection of open space (see Appendix A, Section E.9, Wind and Shadow, Questions 9a and 9b, and Question 10, Recreation, Questions 10a and 10c)

Prior to issuing a permit for any project that requires an Initial Study under CEQA, or issuing a permit for any demolition, conversion, or change of use, and prior to taking any action that requires a finding of consistency with the General Plan, the CCSF is required to find that the proposed project would be consistent with these priority policies. Chapter 3 and Appendix A discuss consistency with the policies that are applicable to the project (specific subsections are noted in parentheses in the priority policies listed above).

4.2.1.4 San Francisco Bicycle Plan

In August 2009, the Board of Supervisors approved the *San Francisco Bicycle Plan* (Bicycle Plan), which includes a citywide bicycle transportation plan (comprised of a Policy Framework and a Network Improvement document). The Bicycle Plan contains objectives and identifies policy changes that would enhance bicycle access and safety with respect to San Francisco’s “bike-ability.” It also describes the existing bicycle route network (a series of interconnected streets in which bicycling is encouraged) and identifies gaps within the citywide bicycle route network that require improvement. The 2009 Bicycle Plan updates the 1997 Bicycle Plan. The final EIR analyzing the Bicycle Plan assessed 56 short-term and long-term bicycle improvement projects. The adopted Bicycle Plan would implement minor improvements on the Great Highway, John F. Kennedy Drive, Martin Luther King Jr. Drive, and 47th Avenue. Project components would not be located in the vicinity of the Bicycle Plan improvements along Great Highway or 47th Avenue. However, proposed pipeline routes would extend along a short portion of John F. Kennedy Drive (just east of Transverse Drive in Golden Gate Park) and would cross Martin Luther King Jr. Drive just north of the terminus of 34th Avenue.

4.2.2 SFPUC Plans and Policies

The SFPUC’s 2011 *Strategic Sustainability Plan* provides a framework for planning, managing, and evaluating SFPUC-wide performance, taking into account the long-term economic, environmental, and social impacts of the SFPUC’s business activities. This plan consists of a “Durable Section” that contains goals, objectives, and performance indicators to implement the SFPUC’s vision and values. The goals and objectives are then used to drive the Sustainability Plan’s “Dynamic Section,” which contains specific actions, targets, measures, and budgeting. The SFPUC utilizes this document to evaluate its performance semiannually, to provide an annual score card, and to help the SFPUC measure progress on an annual basis.¹ The plan contains actions related to building Water System Improvement Program (WSIP) projects on schedule and within the scope and budget, as well as to securing city agency approvals for WSIP projects.

The proposed project is a WSIP facility improvement project that would meet the SFPUC’s objective in improving capital facilities.

4.2.3 SFRPD Plans and Policies

4.2.3.1 Golden Gate Park Master Plan

The Master Plan, adopted by the Recreation and Park Commission in October 1998, is intended to provide a framework and guidelines to ensure responsible stewardship of Golden Gate Park. The Master Plan is a comprehensive planning document that includes general objectives and policies for the park, management strategies, and specific objectives and policies related to park landscaping, circulation, recreation facilities, visitor facilities, buildings and monuments, utilities and infrastructure, park maintenance and operations, and special area plans. The overarching goal of the Master Plan is to manage current and future park and recreation demands while preserving the historic significance of the park.² Related to the Master Plan for Golden Gate

¹ SFPUC, *Strategic Sustainability Plan*, March 2011.

² SFRPD, *Golden Gate Park Master Plan*. Prepared by Royston Hanamoto Alley & Abey, October 1998.

Park is San Francisco Charter Section 4.113, which requires the Board of Supervisors to approve (by a two-thirds vote) any buildings or structures in the park other than structures for nurseries, equipment storage, and comfort stations.

4.2.3.2 Park Code Section 3.19, Water Use Efficiency and Recycled Water

Park Code Section 3.19, adopted by the Recreation and Park Commission in April 2009, lays out a framework for maximizing water use efficiency and nonpotable water use on all property under the jurisdiction of the Recreation and Park Commission. Park Code Section 3.19 calls for coordination between the SFRPD and the SFPUC to convert all park facility irrigation systems to water efficient systems and nonpotable water use. The code also calls for the SFRPD to ensure that all renovated or rehabilitated irrigation systems within Recycled Water Use Areas³ are compatible with the delivery of recycled water and that each golf course within jurisdiction of the Recreation and Park Commission utilizes recycled water. To aid in meeting these goals, the code calls for development of a *Park Water Conservation Plan* to identify top water consuming parks in the city and develop recommendations for increasing water use efficiency; and an Irrigation System Retrofits report to address needed retrofits to irrigation systems within city parks.

4.2.4 Other Plans

In 1995, the Recreation and Park Commission adopted a staff report on the. The staff report set forth general objectives, policies, and management actions to guide development of the SNRAMP. General policies and management actions in the staff report are relevant to biological resources in parts of Golden Gate Park and at Lake Merced, including general policies to maintain/promote indigenous plant species and control/remove invasive species, monitor wildlife populations, etc. The SFRPD is currently updating the SNRAMP.

4.2.5 Regional Plans and Policies

The recently adopted *Plan Bay Area*, which includes the region's Sustainable Communities Strategy, is a collaboration of the following four principal regional planning agencies and their policy documents that guide planning in the nine-county Bay Area:

- Association of Bay Area Governments: "Projections"
- BAAQMD: *2010 Clean Air Plan*
- Metropolitan Transportation Commission: *Regional Transportation Plan – Transportation 2040*
- San Francisco Bay Conservation and Development Commission: *San Francisco Bay Plan*

In addition, the San Francisco Regional Water Quality Control Board's *San Francisco Basin Plan* guides planning of the water basin, and the California Coastal Act guides land use planning and development throughout the Coastal Zone.

³ Designated Recycled Water Use areas are defined per San Francisco Reclaimed Water Ordinances and San Francisco Public Works Code, as described and mapped at: <http://www.sfwater.org/index.aspx?page=687>, Accessed October 3, 2014.

The *Presidio Trust Management Plan* calls for the implementation of water conservation measures, including retrofitting landscaped areas with low-flow irrigation devices and pursuing the use of recycled water for irrigation and other nonpotable water needs.⁴ Strategic Goal 3.6 of the *Presidio Trust 2005–2009 Strategic Plan* also calls for increasing the use of recycled water for landscape irrigation.⁵

The project would not obviously or substantially conflict with any environmental plan or policy adopted for the purpose of avoiding an environmental effect.

⁴ The Presidio Trust, *Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco*, May 2002. Available online at <http://www.presidio.gov/about/Administrative%20Documents/PLN-301-PTMP02-Plan.pdf>.

⁵ The Presidio Trust, *The Presidio Trust Strategic Plan: Fiscal Year 2005 – 2009*. Available online at <http://www.presidio.gov/about/Administrative%20Documents/PLN-301-PTMP07-StratPlan.pdf>.

CHAPTER 5

Environmental Setting and Impacts

5.1 Overview

This chapter provides an analysis of the physical environmental effects of implementing the San Francisco Public Utilities Commission’s (SFPUC) San Francisco Westside Recycled Water Project (project) as described in Chapter 3, Project Description. This chapter describes the environmental setting, assesses impacts, and identifies mitigation measures for significant impacts. The Initial Study (see Appendix A) identifies the potentially significant effects that would be reduced to a less-than-significant level with the implementation of mitigation.

5.1.1 Scope of Analysis

This chapter is organized by environmental resource topics, as follows:

Chapter 5 Sections	
5.1 Overview	5.4 Noise
5.2 Cultural and Paleontological Resources	5.5 Air Quality
5.3 Transportation and Circulation	5.6 Hydrology and Water Quality

Each section of Chapter 5 contains the following elements, based on the requirements of the California Environmental Quality Act (CEQA):

- **Setting.** This subsection describes the existing physical environmental conditions in the project area with respect to each resource topic, at an appropriate level of detail to allow the reader to understand the impact analysis.
- **Regulatory Framework.** This subsection describes the relevant laws and regulations that apply to protecting the environmental resources within the project area, and the governmental agencies responsible for enforcing those laws and regulations.
- **Impacts.** This subsection evaluates the potential for the proposed project to result in adverse effects on the physical environment described in the setting. Each impact analysis section defines significance criteria for evaluating environmental impacts, and the approach to analysis section explains how the significance criteria are applied in evaluating the project impacts. The conclusion of each impact analysis is expressed in terms of the impact significance under CEQA, which is discussed further in Section 5.1.2 below.

- **Mitigation Measures.** Each impact subsection identifies mitigation measures for all of the impacts considered significant, consistent with CEQA Guidelines Section 15126.4, which states that an environmental impact report (EIR), “shall describe feasible measures which could minimize significant adverse impacts...”
- **Cumulative Impacts.** Each subsection discusses cumulative impacts, if applicable, immediately following the description of the direct project-specific impacts and identified mitigation measures. Cumulative impacts, described in detail in Section 5.1.4, consider the effects of the proposed project together with those of other past, present, or reasonably foreseeable future projects proposed by the SFPUC or other jurisdictions. The analysis of cumulative impacts under each resource topic is based on the same setting, regulatory framework, and significance criteria as the project-specific impacts. Additional mitigation measures are identified if the analysis determines that the project’s contribution to a significant cumulative impact, even with project-level mitigation, would be considerable.

Impacts of Mitigation Measures. Each subsection identifies the potential impacts of implementing mitigation measures for those mitigation measures that could cause secondary environmental impacts, consistent with CEQA Guidelines Section 15126.4, which states that “if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed.”

5.1.2 Significance Determinations

The significance criteria used in this EIR are based on the San Francisco Planning Department’s Environmental Planning section (EP) guidance regarding the thresholds of significance used to assess the severity of the environmental impacts of the proposed project. EP guidance is based on CEQA Guidelines Appendix G, with some modifications. Each section of Chapter 5 presents, before the discussion of impacts, the significance criteria used to analyze each resource topic. The categories used to designate impact significance are as follows:

- **No Impact.** An impact is considered not applicable (no impact) if there is no potential for impacts or the environmental resource does not occur within the project area or the area of potential effect. For example, there would be no impact related to grading if there is no grading proposed at a particular project site.
- **Less than Significant.** This determination applies if there is a potential for some limited impact but not a substantial, adverse effect that qualifies under the significance criteria as a significant impact. No mitigation is required for impacts determined to be less than significant.
- **Less than Significant with Mitigation.** This determination applies if there is a potential for the project to result in an adverse effect that meets the significance criteria, or if there is certainty that the project would result in an adverse effect that meets the significance criteria, but feasible mitigation is available that would reduce the impact to a less-than-significant level. An impact described as “potentially” significant indicates there is a potential for this impact to occur, but there is either not enough project information or site-specific information to determine definitively whether or not it qualifies under the significance criteria as significant. Impacts identified as “potentially significant” are treated the same as significant impacts in this EIR.

- **Significant and Unavoidable.** This determination applies if the project would result in an adverse effect that meets the significance criteria, but for which there appears to be no feasible mitigation available to reduce the impact to a less-than-significant level.
- **Significant and Unavoidable with Mitigation.** This determination applies if it is certain that the project would result in an adverse effect that meets the significance criteria and there is some mitigation available to lessen the impact, but the residual effect after implementation of the measure would remain significant.

5.1.3 Relationship to the Water System Improvement Program Program EIR

As described in Chapter 2, Introduction and Background, the proposed project is one of the facility improvement projects included in the SFPUC's Water System Improvement Program (WSIP). The Program EIR (PEIR) on the WSIP,¹ which the San Francisco Planning Commission certified on October 30, 2008, addresses the potential environmental impacts of constructing and operating the facility improvement projects in the WSIP as well as the impacts of the proposed systemwide water supply and operations strategy.² Because the proposed project is a component of the WSIP, the project would also contribute to the WSIP's systemwide water supply and operations impacts.

The PEIR analyzed potential water supply and system operations impacts (separate from the environmental impacts associated with the facility improvement projects) within the following geographic regions: the Tuolumne River, Alameda Creek, and Peninsula watersheds; and the Westside Groundwater Basin. The PEIR also identified the cumulative effects of implementing the WSIP and the associated changes in system operations in combination with other past, present, and reasonably foreseeable future projects within each of these watersheds. It also discussed the potential effects of climate change and global warming on the predicted impacts of the WSIP.

The PEIR concluded that the WSIP would result in changes in reservoir levels and associated changes in downstream flows in rivers and creeks in the three affected watersheds (Tuolumne River, Alameda Creek, and Peninsula), potentially resulting in impacts on groundwater, water quality, fisheries, and terrestrial biological resources in these watersheds. The PEIR determined that, in the event that water supply deliveries (average annual) to customers from the watersheds exceed current levels, stream flow changes in the Tuolumne River watershed could affect fisheries and terrestrial biological resources. In the Alameda watershed, the WSIP (which includes restoring the historical storage capacity of Calaveras Reservoir) could affect water levels in Calaveras and San Antonio Reservoirs; flow in Alameda, Calaveras, and San Antonio Creeks; and the fisheries and terrestrial biological resources of the reservoirs and creeks. In the Peninsula watershed, the WSIP (which includes restoring the historical storage capacity

¹ The WSIP PEIR is available for public review at the San Francisco Planning Department, 1650 Mission Street, San Francisco CA 94103, and can be found on the San Francisco Planning Department's website at <http://www.sf-planning.org/index.aspx?page=1829>. The State Clearinghouse number for the WSIP PEIR is 2005092026.

² San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

of Crystal Springs Reservoir) could affect water levels in Crystal Springs, San Andreas, and Pilarcitos Reservoirs; flow in lower San Mateo and Pilarcitos Creeks; and the fisheries and terrestrial biological resources of these reservoirs and creeks. All impacts on these environmental elements in the Peninsula watershed were determined to be either potentially significant but mitigable or less than significant. In addition, the WSIP includes development of groundwater supplies in the North Westside Groundwater Basin and a conjunctive-use program in the South Westside Groundwater Basin, which could result in basin overdraft, seawater intrusion, and changes in the water levels of surface water bodies.

As stated above, the project as a component of the WSIP would contribute to the water supply and system operations impacts identified in the WSIP PEIR. **Tables 5.1-1** through **5.1-5** summarize the WSIP water supply and system operations impacts and the associated mitigation measures for each geographic region as presented in the PEIR. The reader is referred to the complete WSIP PEIR for a detailed explanation of these summary tables. Note that the categories of significance used in the PEIR are slightly different than those used in this EIR (see table footnotes in Tables 5.1-1 through 5.1-5). In addition to water supply impacts and mitigation measures, the PEIR provides a program-level analysis of the impacts associated with WSIP facility improvement projects, including construction and operation impacts. This EIR addresses the same issues as the PEIR for the WSIP but at a project level of detail; that is, this EIR provides more project-specific and site-specific descriptions and analysis of project effects based on a much more detailed project description and more information about the project area. **Appendix B** of this EIR compares the programmatic mitigation measures identified for this project in the PEIR and the actual mitigation measures identified for this project in this EIR.

The PEIR also analyzed the growth-inducement impacts of the WSIP's systemwide water supply impacts. The proposed project, as a facility improvement project under the WSIP, would be a contributing factor in the WSIP's growth-inducement potential as well as in the associated indirect effects of growth. The PEIR analysis of growth-inducement impacts accounted for the proposed project in sufficient detail, and no further evaluation of these aspects of the proposed project is required. Chapter 6, Other CEQA Issues, Section 6.1, Growth-Inducing Impacts, discusses the growth-inducement impacts of the WSIP.

This project-level EIR tiers from the WSIP PEIR and also incorporates by reference the relevant analyses of the WSIP PEIR with respect to the impacts and mitigation measures, as applicable to this project. CEQA permits tiering from a PEIR in order to allow agencies to broadly consider the environmental effects of a series of actions and/or policies and then to provide a more detailed examination of project-specific impacts in project-level EIRs. As noted above, this project-level EIR provides more detailed information about the proposed project, its impacts, and project-specific mitigation measures. This EIR summarizes and incorporates by reference the WSIP PEIR's analysis of the impacts associated with the WSIP's water supply strategy, including the WSIP PEIR analysis and conclusions regarding impacts on City and County of San Francisco (CCSF) watersheds as well as the WSIP's growth-inducement impacts.

**TABLE 5.1-1
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES**

Impact	Significance Determination				Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts			
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	
STREAM FLOW					
Impact 5.3.1-1: Effects on flow along the Tuolumne River below O'Shaughnessy Dam.	LS				None required.
Impact 5.3.1-2: Effects on flow along Cherry Creek below Cherry Dam.	LS				None required.
Impact 5.3.1-3: Effects on flow along Eleanor Creek below Eleanor Dam.	LS				None required.
Impact 5.3.1-4: Effects on flow along the Tuolumne River below La Grange Dam.	LS				None required.
Impact 5.3.1-5: Effects on flow along the San Joaquin River and the Sacramento–San Joaquin Delta.	LS				None required.
GEOMORPHOLOGY					
Impact 5.3.2-1: Effects on sediment transport and channel characteristics between O'Shaughnessy Dam and Don Pedro Reservoir.	LS				None required.
Impact 5.3.2-2: Effects on sediment transport and channel characteristics below La Grange Dam.	LS				None required.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES

Impact	Significance Determination				Mitigation Measures	
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern		Common Habitats and Species
SURFACE WATER QUALITY						
Impact 5.3.3-1: Effects on water quality in Hetch Hetchy Reservoir and along the Tuolumne River below O'Shaughnessy Dam.	LS					None required.
Impact 5.3.3-2: Effects on water quality in Don Pedro Reservoir and along the Tuolumne River below La Grange Dam.	LS					None required.
Impact 5.3.3-3: Effects on water quality along the San Joaquin River and the Sacramento–San Joaquin Delta.	LS					None required.
SURFACE WATER SUPPLIES						
Impact 5.3.4-1: Effects on Tuolumne River, San Joaquin River, and Stanislaus River water users.	LS					None required.
Impact 5.3.4-2: Effects on Delta water users.	LS					None required.
GROUNDWATER						
Impact 5.3.5-1: Alteration of stream flows along the Tuolumne River, which could affect local groundwater recharge and groundwater levels.	LS					None required.

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PSU = Potentially Significant and Unavoidable, even with mitigation

TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES

Impact	Significance Determination				Mitigation Measures	
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern		Common Habitats and Species
GROUNDWATER (cont.)						
Impact 5.3.5-2: Alteration of stream flows along the Tuolumne River, which could affect local groundwater quality.	LS					None required.
FISHERIES						
Impact 5.3.6-1: Effects on fishery resources in Hetch Hetchy Reservoir.	LS					None required.
Impact 5.3.6-2: Effects on fishery resources along the Tuolumne River between Hetch Hetchy Reservoir and Don Pedro Reservoir.	LS					None required.
Impact 5.3.6-3: Effects on fishery resources in Don Pedro Reservoir.	LS					None required.
Impact 5.3.6-4: Effects on fishery resources along the Tuolumne River below La Grange Dam.	LS when average annual deliveries from the watersheds are maintained at 265 million gallons per day (mgd) or less; PSM if deliveries exceed 265 mgd					Measure 5.3.6-4a, Avoidance of Flow Changes by Reducing Demand for Don Pedro Reservoir Water: The SFPUC will pursue a water transfer arrangement with the Modesto Irrigation District or Turlock Irrigation District and/or other water agencies to offset the WSIP's effects on water storage in Don Pedro Reservoir and minimize WSIP-induced changes in releases from La Grange Dam. **If Measure 5.3.6-4a proves to be infeasible, the SFPUC will implement Measure 5.3.6-4b.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

**TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
FISHERIES (cont.)						
Impact 5.3.6-4 (cont.)						Measure 5.3.6-4b, Fishery Habitat Enhancement: The SFPUC will implement or fund one of two fishery habitat enhancement projects that are consistent with the Lower Tuolumne River Restoration Plan: augmentation of spawning gravel at three selected sites or the filling or isolation from the river of one of the existing inactive quarry pits.
Impact 5.3.6-5: Effects on fishery resources along the San Joaquin River.	LS					None required.
TERRESTRIAL BIOLOGY						
Impact 5.3.7-1: Impacts on riparian habitat and related biological resources in Hetch Hetchy Reservoir and along the bedrock channel portions of the Tuolumne River from O'Shaughnessy Dam to Don Pedro Reservoir.		LS	LS	LS	LS	None required.
Impact 5.3.7-2: Impacts on alluvial features that support meadow and riparian habitat along the Tuolumne River from O'Shaughnessy Dam to Don Pedro Reservoir.		PSM	PSM	PSM	PSM	The SFPUC will implement Measure 5.3.7-2 to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY (cont.)						
Impact 5.3.7-2 (cont.)						Measure 5.3.7-2, Controlled Releases to Recharge Groundwater in Streamside Meadows and Other Alluvial Deposits: The SPPUC will manage releases to the Tuolumne River from Hetch Hetchy Reservoir during the spring with the goal of recharging groundwater that supports meadow and riparian habitat. The SFPUC will periodically survey meadow habitat to determine the efficacy of release management and will modify releases as necessary to sustain meadow habitat.
Impact 5.3.7-3: Impacts on biological resources in Lake Eleanor and along Eleanor Creek.		LS	LS	LS	LS	None required.
Impact 5.3.7-4: Impacts on biological resources in Lake Lloyd and along Cherry Creek.		LS	LS	LS	LS	None required.
Impact 5.3.7-5: Impacts on biological resources in Don Pedro Reservoir.		LS	LS	LS	LS	None required.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

**TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY (cont.)						
Impact 5.3.7-6: Impacts on biological resources along the Tuolumne River below La Grange Dam.		LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	<p>The SFPUC will implement Measures 5.3.6-4a or 5.3.7-6 to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level.</p> <p>Measure 5.3.6-4a, Avoidance of Flow Changes by Reducing Demand for Don Pedro Reservoir Water – see description above.</p> <p>**If Measure 5.3.6-4a proves to be infeasible, the SFPUC will implement Measure 5.3.7-6.</p> <p>Measure 5.3.7-6, Lower Tuolumne River Riparian Habitat Enhancement: Consistent with the Lower Tuolumne River Restoration Plan, the SFPUC will protect and enhance 1 mile of riparian vegetation within the contemporary floodplain.</p>
Impact 5.3.7-7: Conflicts with the provisions of adopted conservation plans or other approved biological resources plans for the Tuolumne Wild and Scenic River.				LS		None required.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

TABLE 5.1-1 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES –
TUOLUMNE RIVER SYSTEM AND DOWNSTREAM WATER BODIES

Impact	Significance Determination				Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts			
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	
RECREATIONAL AND VISUAL RESOURCES					
Impact 5.3.8-1: Effects on reservoir recreation due to changes in water system operations.	LS				None required.
Impact 5.3.8-2: Effects on river recreation due to changes in water system operations.	LS				None required.
Impact 5.3.8-3: Effects on the aesthetic values of the Tuolumne Wild and Scenic River.	LS				None required.
ENERGY RESOURCES					
Impact 5.3.9-1: Effects on hydropower generation at facilities along the Tuolumne River.	B				None required.

NOTES:

PEIR Significance Categories

NA = Not Applicable or No Impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

B = Beneficial

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

**TABLE 5.1-2
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status- Species	Other Species of Concern	Common Habitats and Species	
STREAM FLOW						
Impact 5.4.1-1: Effects on flow along Calaveras Creek below Calaveras Reservoir.	LS					None required.
Impact 5.4.1-2: Effects on flow along Alameda Creek below the diversion dam.	LS ^a					Measure 5.4.1-2, Diversion Tunnel Operation: The SFPUC will implement operational criteria for the diversion dam requiring that water not needed to fill Calaveras Reservoir would be released to Alameda Creek below the diversion dam.
Impact 5.4.1-3: Effects in San Antonio Reservoir and along San Antonio Creek.	LS					None required.
Impact 5.4.1-4: Effects on flow along Alameda Creek below the confluence of San Antonio Creek.	LS					None required.
GEOMORPHOLOGY						
Impact 5.4.2-1: Effects on channel formation and sediment transport along Calaveras Creek.	LS					None required.
Impact 5.4.2-2: Effects on channel formation and sediment transport along Alameda Creek downstream of the diversion dam and downstream of the San Antonio Creek confluence.	LS					None required.

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TABLE 5.1-2 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status- Species	Other Species of Concern	Common Habitats and Species	
GEOMORPHOLOGY (cont.)						
Impact 5.4.2-3: Effects on channel formation and sediment transport along San Antonio Creek downstream of San Antonio Reservoir.	LS					None required.
SURFACE WATER QUALITY						
Impact 5.4.3-1: Effects on water quality in Calaveras Reservoir.	LS					None required.
Impact 5.4.3-2: Effects on water quality in San Antonio Reservoir.	LS					None required.
Impact 5.4.3-3: Changes in water quality along Calaveras, San Antonio, and Alameda Creeks.	LS					None required.
GROUNDWATER BODIES						
Impact 5.4.4-1: Changes in groundwater levels, flows, quality, and supplies.	LS					None required.
FISHERIES						
Impact 5.4.5-1: Effects on fishery resources in Calaveras Reservoir.	B					None required.
Impact 5.4.5-2: Effects on fishery resources along Calaveras Creek below Calaveras Dam and along Alameda Creek below confluence with Calaveras Creek.	B					None required.

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**TABLE 5.1-2 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status-Species	Other Species of Concern	Common Habitats and Species	
FISHERIES (cont.)						
Impact 5.4.5-3: Effects on fishery resources along Alameda Creek downstream of Alameda Creek Diversion Dam.	PSM					<p>Measure 5.4.5-3a, Minimum Flows for Resident Trout in Alameda Creek: The SFPUC will release a minimum flow of approximately 10 cubic feet per second from the diversion dam and monitor the effects of the release on resident trout spawning and egg incubation.</p> <p>** If monitoring results for Measure 5.4.5-3a indicate the measure is unsuccessful, the SFPUC will implement Measure 5.4.5-3b.</p> <p>Measure 5.4.5-3b, Alameda Diversion Dam Restrictions or Fish Screens: If after 10 years the minimum release does not sustain the resident trout population, the SFPUC will either increase releases from the diversion dam or install a fish passage barrier on the diversion tunnel.</p>
Impact 5.4.5-4: Effects on fishery resources in San Antonio Reservoir.	B					None required.
Impact 5.4.5-5: Effects on fishery resources along San Antonio Creek below San Antonio Reservoir.	LS					None required.
Impact 5.4.5-6: Effects on fishery resources along Alameda Creek below confluence with San Antonio Creek.	LS					None required.

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TABLE 5.1-2 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status-Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY						
Impact 5.4.6-1: Effects on riparian habitat and related biological resources in Calaveras Reservoir.		PSM	PSM	LS	LS	The SFPUC will implement Measure 5.4.6-1 to reduce adverse impacts on sensitive habitats and key special-status species to a less-than-significant level. Measure 5.4.6-1, Compensation for Impacts on Terrestrial Biological Resources: The SFPUC will protect, restore, and enhance existing riparian habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Calaveras Reservoir. Compensatory habitat may be provided as part of the SFPUC's Habitat Reserve Program.
Impact 5.4.6-2: Effects on riparian habitat and related biological resources along Alameda Creek, from below the diversion dam to the confluence with Calaveras Creek.		LS	PSM	LS	N/A	The SFPUC will implement Measures 5.4.1-2 and 5.4.5-3a to reduce adverse impacts on key special-status species to a less-than-significant level. Measure 5.4.1-2, Diversion Tunnel Operation – see description above. Measure 5.4.5-3a, Minimum Flows for Resident Trout in Alameda Creek – see description above.
Impact 5.4.6-3: Effects on riparian habitat and related biological resources along Calaveras Creek, from Calaveras Reservoir to the confluence with Alameda Creek.		LS	PSM	LS	LS	The SFPUC will implement Measure 5.4.6-3 to reduce adverse impacts on key special-status species to a less-than-significant level. Measure 5.4.6-3, Operational Procedures for Calaveras Dam Releases: The SFPUC will manage releases from Calaveras Reservoir to mimic a more natural hydrologic regime in the creek for the benefit of terrestrial biological resources. The specifics of this mitigation measure will be determined as part of project-level CEQA review.

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TABLE 5.1-2 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status- Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY (cont.)						
Impact 5.4.6-4: Effects on riparian habitat and related biological resources along Alameda Creek, from the confluence with Calaveras Creek to the confluence with San Antonio Creek.		LS	PSM	LS	LS	The SFPUC will implement Measures 5.4.6-3 and 5.4.5-3a to reduce adverse impacts on key special-status species to a less-than-significant level. Measure 5.4.6-3, Operational Procedures for Calaveras Dam Releases – see description above. Measure 5.4.5-3a, Minimum Flows for Resident Trout on Alameda Creek – see description above.
Impact 5.4.6-5: Effects on riparian habitat and related biological resources in San Antonio Reservoir.		LS	LS	LS	LS	None required.
Impact 5.4.6-6: Effects on riparian habitat and related biological resources along San Antonio Creek between Turner Dam and the confluence with Alameda Creek.		LS	LS	LS	N/A	None required.
Impact 5.4.6-7: Effects on riparian habitat and related biological resources along Alameda Creek below the confluence with San Antonio Creek.		LS	LS	LS	N/A	None required.
Impact 5.4.6-8: Conflicts with the provisions of adopted conservation plans or other approved biological resources plans.				LS		None required.

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TABLE 5.1-2 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – ALAMEDA CREEK WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special Status- Species	Other Species of Concern	Common Habitats and Species	
RECREATIONAL AND VISUAL RESOURCES						
Impact 5.4.7-1: Effects on recreational facilities and/or activities.	LS					None required.
Impact 5.4.7-2: Visual effects on scenic resources or visual character of the water bodies.	LS					None required.

^a Impact 5.4.1-2 was determined to be LS subsequent to certification of the WSIP PEIR, this mitigation measure is no longer required for program implementation. Based on the best available information at that time, the PEIR made the conservative determination that the WSIP would result in a significant and unavoidable impact related to flow along Alameda Creek below the Alameda Creek Diversion Dam (“Alameda Creek Hydrologic Impact”) (see PEIR Chapter 4, Section 5.4.1, Impact 5.4.1-2). Based upon more detailed site-specific data and analysis, the project-level analysis in the Calaveras Dam Replacement Project EIR modified this PEIR impact determination to be less than significant (San Francisco Planning Department, *San Francisco Public Utilities Commission’s Calaveras Dam Replacement Project, Final Environmental Impact Report*, Vol. 1, 3, 4, File No. 2005.0161E, State Clearinghouse No. 2005102102, Certified January 27, 2011).

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**TABLE 5.1-3
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – PENINSULA WATERSHED**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
STREAM FLOW						
Impact 5.5.1-1: Effects on flow along San Mateo Creek.	LS					None required.
Impact 5.5.1-2: Effects on flow along Pilarcitos Creek.	LS					None required.
GEOMORPHOLOGY						
Impact 5.5.2-1: Changes in sediment transport and channel morphology in the Peninsula watershed.	LS					None required.
WATER QUALITY						
Impact 5.5.3-1: Effects on water quality in Crystal Springs Reservoir, San Andreas Reservoir, and San Mateo Creek.	LS					None required.
Impact 5.5.3-2: Effects on water quality in Pilarcitos Reservoir and along Pilarcitos Creek.	PSM					Measure 5.5.3-2a, Low-head Pumping Station at Pilarcitos Reservoir: The SFPUC will install a permanent low-head pumping station at Pilarcitos Reservoir that would enable the SFPUC to access and use an additional 350 acre-feet of water from Pilarcitos Reservoir. In years when the WSIP would cause releases from Pilarcitos Reservoir to Pilarcitos Creek to be reduced to reservoir inflow earlier in the summer than under the existing condition (about 25 percent of years in the hydrologic record), the SFPUC will use the pumping station to augment flow in Pilarcitos Creek with water from the reservoir. The pumping station will draw water from the cool pool of water below the thermocline during times when the reservoir is stratified. The pumping station outlet will be designed to ensure that water discharged to the creek is adequately aerated.

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TABLE 5.1-3 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – PENINSULA WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
WATER QUALITY (cont.)						
Impact 5.5.3-2 (cont.)						Measure 5.5.3-2b, Aeration System at Pilarcitos Reservoir: The SFPUC will install a permanent aeration system at Pilarcitos Reservoir. The SFPUC will operate the aeration system as necessary to avoid anoxic conditions and maintain good water quality conditions at the reservoir.
GROUNDWATER						
Impact 5.5.4-1: Alteration of stream flows along Pilarcitos Creek, which could affect groundwater levels and water quality.	LS					None required.
FISHERIES						
Impact 5.5.5-1: Effects on fishery resources in Crystal Springs Reservoir (Upper and Lower).	PSU					Measure 5.5.5-1, Create New Spawning Habitat Above Crystal Springs Reservoir: The SFPUC will survey the extent and quality of fish spawning habitat lost due to inundation and, if feasible, create new spawning habitat at a higher elevation. The specifics of this mitigation measure will be determined as part of project-level CEQA review.
Impact 5.5.5-2: Effects on fishery resources in San Andreas Reservoir.	LS					None required.
Impact 5.5.5-3: Effects on fishery resources along San Mateo Creek.	LS					None required.
Impact 5.5.5-4: Effects on fishery resources in Pilarcitos Reservoir.	PSM					Measure 5.5.3-2b, Aeration System at Pilarcitos Reservoir – see description above.

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TABLE 5.1-3 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – PENINSULA WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
FISHERIES (cont.)						
Impact 5.5.5-5: Effects on fishery resources along Pilarcitos Creek below Pilarcitos Reservoir.	LS ^a					<p>Measure 5.5.3-2a, Low-head Pumping Station at Pilarcitos Reservoir – see description above.</p> <p>Measure 5.5.5-5, Establish Flow Criteria, Monitor and Augment Flow: The SFPUC will develop a monitoring and operations plan for Stone Dam to ensure WSIP-related flow reductions downstream of Stone Dam do not impair steelhead passage and spawning during the winter months of normal and wetter hydrologic years.</p>
TERRESTRIAL BIOLOGY						
Impact 5.5.6-1: Impacts on biological resources in Upper and Lower Crystal Springs Reservoirs.		PSM	PSM	PSM	PSM	<p>The SFPUC will implement Measures 5.5.6-1a and 5.5.6-1b to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level. In addition, the SFPUC will implement Measure 5.5.6-1c to mitigate adverse impacts on key special-status plant species (i.e., fountain thistle) adapted to serpentine seeps.</p> <p>Measure 5.5.6-1a, Adaptive Management of Freshwater Marsh and Wetlands at Upper and Lower Crystal Springs Reservoirs: The SFPUC will develop an adaptive management plan to minimize adverse effects of the WSIP- induced rise in average water levels, and the periodic drawdown of reservoir water levels for maintenance, on San Francisco garter snakes and California red-legged frogs.</p> <p>Measure 5.5.6-1b, Compensation for Impacts on Terrestrial Biological Resources: The SFPUC will protect, restore, and enhance existing wetland and upland habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Crystal Springs Reservoir. Compensatory habitat may be provided as part of the SFPUC’s Habitat Reserve Program.</p>

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TABLE 5.1-3 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – PENINSULA WATERSHED

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY (cont.)						
Impact 5.5.6-1 (cont.)						Measure 5.5.6-1c, Compensation for Serpentine Seep-Related Special-Status Plants: The SFPUC will protect, restore, and enhance existing habitat and/or create new habitat that compensates for WSIP-induced habitat losses for plant species adapted to serpentine seeps.
Impact 5.5.6-2: Impacts on biological resources in San Andreas Reservoir.		LS	PSM	LS	LS	None required.
Impact 5.5.6-3: Impacts on biological resources along San Mateo Creek below Lower Crystal Springs Dam.		LS	LS	LS	LS	None required.
Impact 5.5.6-4: Impacts on biological resources in Pilarcitos Reservoir.		LS	PSM	LS	LS	Measure 5.5.3-2c, Habitat Monitoring and Compensation: The SFPUC will protect, restore, and enhance existing habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Pilarcitos Reservoir. Compensatory habitat may be provided as part of the SFPUC's Habitat Reserve Program.
Impact 5.5.6-5: Impacts on biological resources along Pilarcitos Creek below Pilarcitos Reservoir.		LS	LS	LS	LS	None required.
Impact 5.5.6-6: Impacts along Pilarcitos Creek below Stone Dam.		LS	LS	LS	LS	None required.
Impact 5.5.6-7: Conflicts with the provisions of adopted conservation plans or other approved biological resource plans.				LS		None required.

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**TABLE 5.1-3 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – PENINSULA WATERSHED**

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special- Status Species	Other Species of Concern	Common Habitats and Species	
RECREATIONAL AND VISUAL RESOURCES						
Impact 5.5.7-1: Effects on recreational facilities and/or activities.	LS					None required.
Impact 5.5.7-2: Visual effects on scenic resources or the visual character of water bodies.	LS					None required.

^a Based on the best available information at that time, the PEIR made the conservative determination that the WSIP could result in a significant and unavoidable impact on fishery resources in Crystal Springs Reservoir related to inundation of spawning habitat upstream of the reservoir (see PEIR Chapter 5, Section 5.5.5, Impact 5.5.5-1). Project-level review of updated, site-specific information that was developed following certification of the PEIR was incorporated into the project-level EIR for the Lower Crystal Springs Dam Improvements Project, and the project-level analysis determined that impacts on fishery resources due to inundation effects would be less than significant (San Francisco Planning Department, *San Francisco Public Utilities Commission’s Lower Crystal Springs Dam Improvements Project, Final Environmental Impact Report*, Draft EIR Vol. 1 and Response To Comments, File No. 2005.0161E, State Clearinghouse No. 2007012002, Certified October 7, 2010.).

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**TABLE 5.1-4
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – WESTSIDE GROUNDWATER BASIN**

Impact	Significance Determination		Mitigation Measures
	North Westside Groundwater Basin	South Westside Groundwater Basin	
HYDROLOGY AND WATER QUALITY			
Impact 5.6-1: Basin overdraft due to pumping from the Westside Groundwater Basin.	PSM	LS	The SFPUC will implement Measure 5.6-1 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield: The SFPUC will continue ongoing groundwater and lake level monitoring programs to determine the safe yield of the North Westside Groundwater Basin in order to avoid overdraft and associated effects, including adverse effects on surface water features and seawater intrusion.
Impact 5.6-2: Changes in water levels in Lake Merced and other surface water features, including Pine Lake, due to decreased groundwater levels in the Westside Groundwater Basin.	PSM	N/A	The SFPUC will implement Measures 5.6-1 and 5.6-2 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield – see description above. Measure 5.6-2, Implementation of a Lake Level Management Plan: The SFPUC will develop and implement a lake level management plan identifying strategies for altering pumping patterns or augmenting lake levels to maintain Lake Merced water levels within the desired long-term range.
Impact 5.6-3: Seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin.	PSM	LS	The SFPUC will implement Measure 5.6-1 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield – see description above.
Impact 5.6-4: Land subsidence due to decreased groundwater levels in the Westside Groundwater Basin if the historical low water levels are exceeded.	LS	LS	None required.

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TABLE 5.1-4 (Continued)
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – WESTSIDE GROUNDWATER BASIN

Impact	Significance Determination		Mitigation Measures
	North Westside Groundwater Basin	South Westside Groundwater Basin	
Impact 5.6-5: Contamination of drinking water due to groundwater pumping in the Westside Groundwater Basin.	PSM	PSM	The SFPUC will implement Measure 5.6.5 to reduce adverse impacts on the North Westside and South Westside Groundwater Basins to a less-than-significant level. Measure 5.6-5, Drinking Water Source Assessments for Groundwater Wells: The SFPUC will develop and implement a source water protection program for wells constructed under the Local and Regional Groundwater Projects that are considered vulnerable to contamination on the basis of the drinking water source assessment prepared in accordance with Department of Health Services regulations.
Impact 5.6-6: Drinking water contaminants above maximum contaminant levels and adverse effects of adding treated groundwater to the distribution system.	LS	LS	None required.

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**TABLE 5.1-5
SUMMARY OF WSIP WATER SUPPLY IMPACTS AND MITIGATION MEASURES – CUMULATIVE WATER SUPPLY**

Cumulative Water Supply Impact	Cumulative Impact Significance Determination							Mitigation Measures
	Hydrology	Geomorphology	Surface Water Quality	Groundwater	Fisheries	Terrestrial Biology	Recreational / Visual Quality	
Impact 5.7.2-1: Tuolumne River – Hetch Hetchy Reservoir to Don Pedro Reservoir.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.2-2: Tuolumne River – Don Pedro Reservoir to the San Joaquin River.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.2-3: San Joaquin River, Stanislaus River, and the Delta.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.3-1: Alameda Creek watershed.	N/A	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.4-1: San Mateo Creek watershed.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.4-2: Pilarcitos Creek watershed.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.5-1: North Westside Groundwater Basin.	LS							None required.
Impact 5.7.5-2: South Westside Groundwater Basin.	LS							None required.

NOTE: Significance determinations presented in this table assume implementation of all mitigation measures presented in WSIP PEIR Chapter 5, Section 5.6, and in PEIR Chapter 6.

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5.1.4 Approach to Cumulative Impact Analysis and Cumulative Projects

Two approaches to a cumulative impact analysis are provided in CEQA Guidelines Section 15130(b)(1): (a) the analysis can be based on a list of past, present, and reasonably foreseeable future projects producing closely related impacts that could combine with those of a proposed project, or (b) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The following factors were used to determine an appropriate list of individual projects to be considered in this cumulative analysis:

- **Similar Environmental Impacts.** A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one that is “reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or a project that has approved funding.
- **Geographic Scope and Location.** A relevant project is located in the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects on air quality consists of the affected air basin.
- **Timing and Duration of Implementation.** Effects associated with activities for a relevant project (e.g., short-term construction or demolition or long-term operations) would likely coincide in timing with the related effects of the proposed project.

Based on the above, the following plans and projects in the project vicinity are projects considered in the cumulative impact analysis:

- **Oceanside Water Pollution Control Plant (WPCP) Projects.** The SFPUC is proposing seismic, structural, and other upgrades to the Oceanside WPCP, including the Temperature Phased Anaerobic Digestion project at the Oceanside WPCP, which would include localized construction effects to install digester infrastructure. In addition, an existing grease receiving station would be demolished and reconstructed at a new location on the Oceanside WPCP site. Other future small-scale construction projects include potential upgrades to the grit removal system and increased co-generation production; however these efforts are in preliminary conceptual planning stages only.
- **San Francisco Groundwater Supply Project.** The SFPUC is proposing a project that would provide an average of up to 4 mgd of groundwater to augment San Francisco’s municipal water supply. The proposed groundwater well facilities would supply groundwater to existing reservoirs, where the water would be blended with San Francisco’s existing municipal water supply before distribution within San Francisco. The well facilities proposed under the San Francisco Groundwater Supply Project (Planning Department Case No. 2008.1122E) would be located on the west side of San Francisco on land owned by the CCSF.
- **Vista Grande Drainage Basin Improvement Project.** The City of Daly City is proposing a project that would improve existing facilities and construct new facilities to screen stormwater, route flows to the existing Vista Grande Canal and to Lake Merced, route a portion of low flows through a constructed wetlands treatment system, control the water surface elevation in Lake Merced, and reduce the potential for localized flooding within the Vista Grande watershed. The Vista Grande stormwater system drains the northwestern portion of Daly City and an unincorporated portion of San Mateo County. The project consists of the following: partial replacement of the existing Vista Grande Canal to incorporate a gross solid screening device, a treatment wetland, and diversion and

discharge structures to route some stormwater flows from the Vista Grande Canal to South Lake Merced; replacement of the existing Vista Grande Tunnel to expand its capacity; and replacement of the existing outfall structure at Fort Funston. These improvements would alleviate flooding and protect the ocean outfall from ongoing coastal erosion while reconnecting a significant portion of the Lake Merced watershed.

- **Regional Groundwater Storage and Recovery Project.** The purpose of the WSIP Regional Groundwater Storage and Recovery Project is to further the use of the South Westside Groundwater Basin as an underground storage reservoir by storing water in the basin during wet periods for subsequent recapture during dry periods. This new dry-year water supply would be made available to the cities of Daly City and San Bruno, the California Water Service Company in its South San Francisco service area, and SFPUC wholesale water customers. The proposed project facilities would include up to 16 new groundwater production well facilities within the South Westside Groundwater Basin. Each groundwater well facility site would contain a groundwater production well, pump station, underground distribution piping, utility connections, and disinfection unit. Well facilities would be connected to Daly City, San Bruno, California Water Service Company, or SFPUC distribution systems. In addition, upgrades to the existing Westlake pump station in Daly City are planned as part of the project. Construction is scheduled for approximately 2015 through 2018.
- **Parkmerced Project.** The proposed Parkmerced Project is a long-term mixed-use development program to comprehensively re-plan and redesign the site. The Parkmerced Project would: increase residential density, add new commercial and retail services, modify transit facilities, incorporate renewable energy, and improve utilities and open space. Over a period of approximately 20 years, 1,538 existing apartments would be demolished in phases and fully replaced, and an additional 5,679 new units would be added to the project site, resulting in a total of about 8,900 units.^{3,4}
- **800 Brotherhood Way.** This project involves construction of up to 182 dwelling units on an approximately 7.7-acre undeveloped site located on the north side of Brotherhood Way. The project would involve subdividing the site into about 121 lots and constructing 60 single-family homes and 61 two-unit dwellings, and includes additional on- and off-street parking, tree removal, and a new traffic light on Brotherhood Way. Construction is underway and is scheduled to conclude in early 2015.
- **Pacific Rod and Gun Club Upland Soil Remediation Action Project.** The SFPUC proposes to implement the Pacific Rod and Gun Club Upland Soil Remedial Action Project, which would remediate upland⁵ soil contamination at the Pacific Rod and Gun Club, located at 520 John Muir Drive, on the southwest side of Lake Merced. Construction is scheduled for early 2015 and expected to require approximately 1 year.
- **Significant Natural Resources Area Management Plan Proposed Update.** The San Francisco Recreation and Park Department manages a number of parks that contain preserved fragments of unique plant and animal habitats in San Francisco and Pacifica; these areas are known as Significant Natural Resource Areas. Management priorities have been set for these natural resource

³ San Francisco Planning Department, "Parkmerced Project." Available online at <http://sf-planning.org/index.aspx?page=2529>, Accessed January 23, 2014.

⁴ San Francisco Planning Department, *Parkmerced Project, Draft Environmental Impact Report*, Vol. 1, File No. 2008.0021E, State Clearinghouse No. 200905073, May 12, 2010. Available online at http://www.sf-planning.org/index.aspx?page=1828#2008_0021E.

⁵ Upland refers to the elevated areas lying above the level where water flows or where flooding occurs.

areas based on their levels of sensitivity, species presence, and habitat complexity. The Lake Merced Natural Area covers approximately 395 of the lake's 614 acres and generally encompasses the lake, the bordering freshwater marsh wetland, and the upland vegetation. Implementation activities under this management plan update have not yet been scheduled, but could begin approximately 2015 or later.

- **Golden Gate Park, Lincoln Park, and Presidio Irrigation Retrofits and Additions.** If the Westside Recycled Water Project is implemented, recycled water customers might be required to retrofit their irrigation facilities, which could include bringing systems into compliance with California Department of Public Health Services requirements and adding distribution systems for the use of recycled water (e.g., the Presidio would install distribution systems to serve irrigated areas). In addition, the Presidio Trust would need to receive an amendment or new water supply permit from the State Water Resources Control Board to address the use of recycled water within the Lobos Creek watershed.

5.2 Cultural and Paleontological Resources

This section evaluates the cultural and paleontological impacts that could occur during construction and operation of the proposed recycled water treatment plant and underground storage, as well as construction of and/or upgrades to associated distribution facilities (pipelines and pumping facilities). The impact analysis assesses whether construction and operational activities would: (1) cause significant impacts on historical resources as defined in California Environmental Quality Act (CEQA) Guidelines Section 15064.5 or on an archaeological resource pursuant to CEQA Guidelines Section 15064.5; (2) directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or (3) disturb any human remains.

5.2.1 Setting

Definitions

Historical Resources

Based on the CEQA Guidelines, Section 15064.5(a), historical resources include, but are not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archeologically significant or that is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by a lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (California Register) (Public Resources Code [PRC] Section 5024.1).

Under federal regulations, historic properties are defined as any prehistoric or historic district, site, object, building, or structure included in or eligible for inclusion in the National Register of Historic Places (National Register) (Title 36 of the Code of Federal Regulations [CFR], Section 800.16[l]). Historic properties that meet federal criteria are also considered historical resources under CEQA, in accordance with PRC Section 5024.1(d)(1). Historical resources and historic properties refers to both significant architectural/structural resources and significant archeological resources.

Area of Potential Effects

Federal regulations require the identification of historic properties within the “area of potential effects” (APE) of a project, defined as the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties (36 CFR 800.16[d]). For compliance with CEQA, the San Francisco Planning Department, EP section uses the term CEQA-APE (C-APE); thus, this analysis uses the term C-APE as synonymous with APE for this project.

The C-APE for the Westside Recycled Water Project (project) includes all areas of proposed ground-disturbing activity at several locations throughout western San Francisco, including: the San Francisco Public Utilities Commission (SFPUC)’s Oceanside Water Pollution Control Plant (WPCP) near Lake Merced; the Central Reservoir; the San Francisco Zoo (Zoo) maintenance yard to the southwest of the visitor-serving areas and within a portion of the visitor parking area, and pipelines connecting the WPCP to Golden Gate Park, the Panhandle portion of Golden Gate Park (Panhandle), the Presidio, the Zoo and

Lincoln Park. No subsurface disturbance is expected for the upgrades and connections to existing pump stations and booster pumps at Oceanside WPCP, Lincoln Park, and the Panhandle, or for equipment staging areas or the temporary use of the former Richmond-Sunset WPCP site; however, the horizontal extent of these locations is included in the archaeological C-APE.

Although the pipelines would generally be located in the center of paved roadway (subject to required separations between water pipelines and sanitary sewers), the entire roadway is considered to be part of the C-APE because the horizontal alignment of the pipelines cannot be definitively anticipated at this time. The location of the pipeline within the trail in Golden Gate Park would be generally centered within the trail.

The C-APE also includes the circa 1970 Lincoln Park pump station located immediately adjacent to Clement Street at 39th Avenue, but it does not include Lincoln Park as a whole because the project would not involve ground disturbance within Lincoln Park or Lincoln Park Golf Course. The pipeline would connect to the Lincoln Park pump station; however, no alteration to the pump station is proposed other than the potential upgrade of pump system controls to optimize system operation. Similarly, the C-APE does not include the Presidio in its entirety, as the pipeline connection to this area would be underground at 14th Avenue about a half block north of Lake Street and about one block south of the Presidio boundary, and the project would not involve ground disturbance within the Presidio.

The C-APE includes the Zoo maintenance yard to the southwest of the visitor-serving areas and a portion of the visitor parking area, but does not include the Zoo display areas and public use areas as the pipeline would be contained entirely within peripheral roadways or adjacent parking lots. Should the Zoo be included as a recycled water customer in the future, construction of recycled water distribution facilities would be required, possibly at one of the Zoo locations included in the C-APE.

The C-APE includes the maximum area that could be affected by construction of the Central Reservoir storage tank and pump station in Golden Gate Park. Connection hardware could be required at any location where the pipelines must connect to existing irrigation pipelines; however, the area of ground disturbance would not extend beyond that required to install the pipe. All equipment staging areas are also included in the C-APE.

Other considerations for determining the C-APE include the construction methods and equipment to be used, such as use of equipment or construction methodologies (vibratory rollers or compactors) with the potential to generate vibration levels of 0.2 inches per second peak particle velocity. Such construction-related vibration can damage historical structures if it occurs within 30 feet. Thus, the horizontal extent of the C-APE includes the potential for significant vibration due to construction equipment or methods.

The C-APE for paleontological resources is similar to that for architectural and archaeological resources; however, surface-disturbing activities (e.g., vegetation clearing) would not disturb or destroy bedrock where paleontological resources could be located. Therefore, areas of surface disturbance are not considered to be within the C-APE for paleontological resources.

Environmental Setting

The C-APE is located in the Bay Area–Delta Bioregion. This bioregion consists of a variety of natural communities that range from the open waters of San Francisco Bay and the Sacramento–San Joaquin River Delta to salt and brackish marshes to chaparral and oak woodlands. The temperate climate is Mediterranean in nature, with relatively mild, wet winters and warm, dry summers. The C-APE ranges from 0.05 to 4.0 miles from the Pacific Ocean in western San Francisco. At one time, the C-APE was a sand dune environment, but today very little native vegetation remains in the vicinity. Lake Merced was historically a single body of water that was fed by several groundwater springs and seeps on its eastern and southern sides.¹ Natural vegetation communities in the C-APE are classified based on Holland’s Preliminary Descriptions of the Terrestrial Natural Communities of California, and include barren/ruderal, non-native forest, developed, landscaped, pond, and freshwater marsh.² “Barren,” “developed,” and “pond” are not natural vegetation communities per se, as they lack natural vegetation, but are used in this Environmental Impact Report (EIR) to describe areas that cannot be classified under any of Holland’s vegetation communities.

Geological Context

The project C-APE is within an area of San Francisco that is underlain by Holocene³ dune sands, some of which may be Pleistocene⁴ in age. Prior to development, the western part of the city was the site of one of the largest dune fields in the San Francisco Bay Area, largely because of its high exposure to westerly winds from the Pacific Ocean and the abundant supply of sediment to Ocean and Baker beaches. Beach sand is typically derived locally by wave abrasion of sea cliffs and by stream erosion in adjacent hills. Wave action winnows silt and clay from rock debris supplied to the beaches and leaves a residuum of clean, well-sorted sand. In areas exposed to high winds, sands supplied to beaches undergo a cycle of wind-erosion, transport, and deposition that form transverse, ridge-shaped dunes that can extend many miles inland. Two generations of dunes have been recognized on the eastern side of San Francisco separated by bay mud and clay.^{5,6} In the eastern part of the city, relatively intact concentrations of archaeological materials have been buried and preserved by dune migration, especially in more inland locations that exhibit multiple and geologically more recent depositional episodes. In contrast, dunes on the western side of the city and in the current C-APE consist of older nonstratified dune formations.

Most dune fields are in a state of dynamic equilibrium. There may be no net accumulation or depletion of material within a system as a whole, but constant winds cause continual erosion on the windward side of dunes and deposition on their leeward side. Natural bedrock highlands within the western and northern portions of the city have in many places been mantled with windblown sand, with a thin veneer on their

¹ Oakland Museum of California, “Lake Merced History,” 2012. Available online at <http://museumca.org/creeks/1700-OBDCPix2.html>, Accessed July 3, 2012.

² Holland, Robert F., *Preliminary Descriptions of the Terrestrial Natural Communities of California*, California Department of Fish and Game, October 1986.

³ The Holocene is a geological epoch that began 11,700 years ago and continues to the present.

⁴ The Pleistocene is the epoch from 11,700 years B.P. to 2.5 million years B.P.

⁵ Schlocker, Julius, *Geology of the San Francisco North Quadrangle, California*, U.S. Geological Survey, Professional Paper 782, Washington D.C., 1974.

⁶ Stewart, Suzanne; Praetzellis, Adrian (editors), *Archaeological Research Issues for the Point Reyes National Seashore Golden Gate National Recreation Area for Geoarchaeology Indigenous Archaeology, Historical Archaeology, Maritime Archaeology*, Anthropological Studies Center, Sonoma State University, Rohnert Park, California, November 2003.

windward side, and deposits as thick as 150 feet on their leeward side.⁷ Because human habitation began after the dune field was established, burial of artifacts is more likely restricted to the protected side of dunes where significant accumulations of dune wind-blown sand are more likely. While Holocene and Pleistocene dune sands as a whole have a moderate potential to contain buried archaeological sites,⁸ for the reasons described above, dunes sands on the eastern side of San Francisco may be more sensitive than those on the unprotected western side of the city. However, no archaeological investigations have been conducted on the western side of the city, especially in the vicinity of the C-APE.⁹

Lake Merced was historically an estuary that linked to the Pacific Ocean. As sediment was deposited from the ocean along its western opening, the estuary was closed off and a fresh-water lake was formed with a sand barrier along the ocean. A creek to the sea periodically opened and closed due to the amount of rainfall; the old creek bed location runs through the area that is now the San Francisco Zoo. As a result of an earthquake in 1852, the barrier was breached and the lake reportedly sank 30 feet.¹⁰ A dam was constructed several years later that re-isolated the lake from the ocean. The C-APE in this vicinity is on the west side of Lake Merced adjacent to the Oceanside WPCP, and is mapped by Graymer et al. as Holocene to Pleistocene sand dunes;¹¹ however, this mapping of subsurface geology is generalized, and there may be local alluvial and other sedimentary deposits. At the recycled water treatment plant site, soil would be removed to depths of approximately 23 feet for construction of the storage reservoir. Some of the excavated soil would be artificial fill, which is present to depths of about 5 feet, but the excavation would extend approximately 23 feet into the underlying Colma Formation. Recent geotechnical investigations, however, indicate that construction of the Oceanside facility in 1977 removed at least 20 feet of the original ground surface, which included a thick stratum of Dune sand and the upper surface of the Colma Formation.¹² Because geotechnical data indicate that the upper surface of the Colma Formation, which is the portion of the Colma that is considered archaeologically sensitive, has been removed, there is a low potential for the presence of deeply buried Middle Holocene archaeological resources at that location.

The above discussion suggests that the general vicinity of the overall C-APE has an uncertain potential to contain deeply-buried prehistoric archaeological materials, and there is a low potential of encountering buried prehistoric archaeological materials at the Oceanside WPCP.

⁷ Schlocker, Julius, *Geology of the San Francisco North Quadrangle, California*, U.S. Geological Survey, Professional Paper 782, Washington D.C., 1974.

⁸ Meyer, Jack; Rosenthal, Jeffrey, *Geoarcheological Overview of the Nine Bay Area Counties in Caltrans District 4*, Prepared for Caltrans District 4, 2007.

⁹ Dean, Randall, San Francisco Planning Department, Environmental Analysis Division, Comments on the *Draft SFPUC Westside Recycled Water Historic Context and Archaeological Survey Report*, July 2011.

¹⁰ Shoup, Lawrence, *Cultural Resources Overview: Lake Merced Transport, San Francisco Clean Water Program, San Francisco, California*, January, 1981, pg 8.

¹¹ Graymer, R.W.; Moring, B.C.; Saucedo, G.J.; Wentworth, C.M.; Brabb, E.E.; Knudsen, K.L., *Geologic Map of the San Francisco Bay Region. Scientific Investigations Map 2918*, U.S. Geological Survey, Washington D.C., 2006.

¹² Geotechnical Consultants, Inc., *Westside Recycled Water Project (WRWP), San Francisco, California, Final Geotechnical Interpretive Report*. Prepared for the San Francisco Public Utilities Commission, 2013.

Archaeological/Prehistoric-Period Setting

Prehistoric and ethnographic contexts are presented below, as summarized from the historic context and archaeological survey report prepared for this project.¹³ Archaeological resources include both prehistoric and historic-period archaeological resources. This discussion of prehistoric archaeology addresses cultural patterns in the project C-APE through the time of European contact. Historic-period archaeological resources, starting with the Mission period, are discussed below under the heading Historic-Period Setting.

Prehistoric Context

Archaeologists have developed individual cultural chronological sequences tailored to the archaeology and material culture of each subregion of California. Each of these sequences is based principally on the presence of distinctive cultural traits and stratigraphic separation of deposits. Milliken et al., provides a framework for interpreting the San Francisco Bay Area by dividing human history in California into three broad periods: the Early Period, the Middle Period, and the Late Period. Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, sociopolitics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.¹⁴

The *Paleoindian Period* (13,500 to 10,000 before present [B.P.]) was characterized by big-game hunting over broad geographic areas. Evidence of human habitation in the San Francisco Bay Area during the Paleoindian Period has not yet been discovered. During the *Lower Archaic* (10,000 to 5500 B.P.), geographic mobility continued from the Paleoindian Period and is characterized by the use of the millingslab and handstone as well as large, wide-stemmed and leaf-shaped projectile points. Cut shell beads and the mortar and pestle are first documented in burials during the *Early Period (Middle Archaic; 5500 to 2500 B.P.)*, indicating the shift to sedentism. During the *Middle Period*, which includes the *Lower Middle Period (Initial Upper Archaic; 2500 to 1570 B.P.)* and *Upper Middle Period (Late Upper Archaic; 1570 to 950 B.P.)*, geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich, black middens are recorded from this period. The addition of milling tools, as well as obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the Upper Middle Period, mobility began to be replaced by the development of numerous small villages. A “dramatic cultural disruption” occurred around 1570 B.P., evidenced by the sudden collapse of the *Olivella* saucer bead trade network.¹⁵ During the *Initial Late Period (Lower Emergent; 950 to 450 B.P.)*, social complexity developed toward lifeways within large central villages with resident political leaders and specialized activity sites. Artifacts associated with this period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

¹³ Environmental Science Associates (ESA), *SFPUC San Francisco Westside Recycled Water Project, Draft Historic Context and Archaeological Survey Report*. Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, December 2014.

¹⁴ Milliken, Randall; Fitzgerald, Richard T.; Hylkema, Mark G.; Groza, Randy; Origer, Tom; Bieling, David G.; Leventhal, Alan; Wiberg, Randy S.; Gottfield, Andrew; Gillette, Donna; Bellifemine, Viviana; Strother, Eric; Cartier, Robert; Fredrickson, David A., "Punctuated Culture Change in the San Francisco Bay Area," *Prehistoric California: Colonization, Culture, and Complexity*, Edited by T.L. Jones and K.A. Klar, AltaMira Press. 2007, Ch. 8, pp. 99-124.

¹⁵ Ibid.

Ethnographic Context

This ethnohistorical review has been adapted from Meyer et al.¹⁶

The C-APE is within the traditional territory of the Costanoan people, also referred to as Ohlone, Mutsun, and Rumsun.¹⁷ These people, collectively referred to by ethnographers as Costanoan, were actually distinct sociopolitical groups that spoke at least eight languages of the same Penutian language group. The Ohlone occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs.¹⁸

The San Francisco peninsula is located within former Ramaytush Costanoan territory, where little ethnographic data have been collected due to severe population reductions during the historic period.¹⁹ Thus, information applicable to the Ramaytush Costanoan ethnographic record must be taken from secondary sources^{20,21} and from Milliken's work^{22,23} with mission records. Subsistence practices, tribelet boundaries and village locations, and local population-density estimates provide the basic data for assessing the likelihood of cultural remains in the form of middens or resource-procurement sites within the C-APE. In the absence of these data, prehistoric land use can be reconstructed to some degree by viewing the prehistoric natural features of the study area in the context of the lifeways of the most recent indigenous San Francisco peninsula occupants.

While Costanoan ethnographic data lack breadth, according to Levy, 18th-century explorers' accounts provide "a good deal of ethnographic information that can be located in time and space."²⁴ In particular, J.P. Harrington's field notes provided Levy with "the most extensive single body of Costanoan ethnographic and linguistic material."²⁵ From these sources and from extant statements of Costanoans between 1878 and 1933, Levy developed a cultural sketch of the Costanoan whose ancestors moved into the San Francisco and Monterey bay areas about A.D. 500. Of the eight Costanoan languages, Ramaytush (also known as San Francisco Costanoan) was spoken by about 1,400 people in San Mateo and

¹⁶ Meyer, Jack; White, Greg; Alvarez, Susan, *Prehistoric Archaeology: Overview and Research Context in SF-80 Bayshore Viaduct Seismic Retrofit Project*, Edited by Mary Praetzellis. Prepared by Anthropological Studies Center. Prepared for Caltrans District 4, Oakland, 2001.

¹⁷ Levy, Richard, "California: Costanoan," edited by Robert F. Heizer, *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, General Editor, Smithsonian Institution, Washington, D.C., 1978, pp. 485–495.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Cook, Sherburne F., *The Conflict Between the California Indian and White Civilization, I: The Indian Versus the Spanish Mission*, Ibero-Americana 21, Berkeley, 1943, pp. 183-186.

²¹ Levy, Richard, "California: Costanoan," edited by Robert F. Heizer, *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, General Editor, Smithsonian Institution, Washington, D.C., 1978, pp. 485–495.

²² Milliken, R. T., *The Spatial Organization of Human Population on Central California's San Francisco Peninsula at the Spanish Arrival*, Unpublished Master's thesis, Sonoma State University, Ms. on file, S-9580, California Archaeological Inventory, Northwest Information Center (NWIC), Rohnert Park, California, 1983.

²³ Milliken, R. T., *A Time of Little Choices: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*, Ballena Press, Menlo Park, California, 1995, pp. 1-31.

²⁴ Levy, Richard, "California: Costanoan," edited by Robert F. Heizer, *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, General Editor, Smithsonian Institution, Washington, D.C., 1978, pp. 495.

²⁵ Ibid.

San Francisco Counties.²⁶ The name Olhone, or Ohlone was used by native people historically to refer to San Francisco Bay, although it reportedly is derived from a San Mateo group.²⁷

Based on mission records, Milliken proposed the tribelet name *Aguazio* for the single political group consisting of six important villages that controlled the San Francisco peninsula north of the San Bruno Mountains.²⁸ The villages *Amuctac*, *Pentlenuc*, *Sitlintac*, *Tubsinte*, and *Yemalu* occupied sheltered bayshore valleys, while the village *Chutchui* was inland, near the initial Mission San Francisco de Asis (Dolores).²⁹ According to Milliken, *Sitlintac* and *Chutchui* may have been used as alternate living sites by the same group of people. *Sitlintac* was situated on the San Francisco bayshore between Telegraph Hill and China Basin. Although its exact location remains uncertain, Milliken³⁰ proposed that *Sitlintac* may have been located in the area of Portsmouth Square near the shore of former Yerba Buena Cove or, alternatively, farther south in China Basin near the mouth of the former Mission Bay. No ethnographic sites are located in the vicinity of the C-APE.

Events of the early historic period completely disrupted native lifeways and ultimately resulted in the decimation of all Costanoan language groups. In 1776, both San Francisco de Asis and the San Francisco Presidio were established on the peninsula. The six villages noted above supplied the earliest Mission San Francisco de Asis converts.³¹ Indian labor was important in the construction and repair of the Presidio and the related fortification Castillo de San Joaquin (now occupied by Fort Point); Native Americans also worked as household servants, vaqueros, soldiers, shipbuilders, and skilled navigators and pilots.³²

The mission San Francisco de Asis president, Senan, reported more than 300 deaths due solely to an 1806 measles epidemic,³³ and Bancroft stated that, by 1820, the combined San Rafael *asistencia* and Mission San Francisco de Asis deaths (2,100 total) could not be compared elsewhere in the mission system. The San Francisco mission's death rate "was nearly seventy-five percent" of its population.³⁴

In addition to incredibly high native death rates, missionization profoundly impacted Costanoan lifeways. Ritual and social activities were discouraged or prohibited and, due to missionization efforts in nearby areas, San Francisco Costanoan commingled at the mission with people of differing linguistic and cultural traditions who had occupied the north bay and east bay areas.³⁵ During the Mexican period and the subsequent mission secularization, surviving native people were again forced to relocate, most turning to

²⁶ Ibid. pp. 485.

²⁷ Ibid. pp. 494.

²⁸ Milliken, R. T., *The Spatial Organization of Human Population on Central California's San Francisco Peninsula at the Spanish Arrival*, Unpublished Master's thesis, Sonoma State University, Ms. on file, S-9580, California Archaeological Inventory, NWIC, Rohnert Park, California, 1983.

²⁹ Ibid. pp. 72-74.

³⁰ Ibid. pp. 74.

³¹ Ibid. pp. 72.

³² Meyer, Jack; White, Greg; Alvarez, Susan, *Prehistoric Archaeology: Overview and Research Context in SF-80 Bayshore Viaduct Seismic Retrofit Project*, Edited by Mary Praetzellis. Prepared by Anthropological Studies Center. Prepared for Caltrans District 4, Oakland, 2001.

³³ Cook, Sherburne F., *The Conflict Between the California Indian and White Civilization, I: The Indian Versus the Spanish Mission*. Ibero-Americana 21, Berkeley, 1943, pp. 22.

³⁴ Bancroft, Hubert Howe, *History of California*, Seven Volumes, The History Company, San Francisco, 1884-1890, pp. 374.

³⁵ Levy, Richard, "California: Costanoan," edited by Robert F. Heizer, *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, General Editor, Smithsonian Institution, Washington, D.C., 1978, pp. 486.

labor on surrounding ranchos.³⁶ Due to the extraordinary changes that occurred in rapid succession—beginning with the earliest European settlement of the San Francisco peninsula and continuing through the American period—Costanoan culture virtually vanished from study area environs by the mid-1800s. An example of these losses is seen in an 1849 account that describes a large, abandoned “Indian” village, including structural ruins, bones and shells, and a cremation pit on the east shore of Yerba Buena Island.³⁷ Some small groups of Native Americans remained in the city during the Gold Rush, however, “camping in the open air,” gathering what they could, and begging from the settlers.³⁸

Historic Period Setting

Brief histories of the various project areas in western San Francisco are presented below, as summarized from the historic resources evaluation report prepared for this project.³⁹ From north to south, the areas described are outer Richmond District, Golden Gate Park, and the Sunset District. Also included are brief historical contexts of the Oceanside WPCP and the California Army National Guard (CA ARNG) Readiness Center (formerly known as Armory).

Nearly all of western San Francisco was in a natural state of sand dunes with a sparse covering of chaparral for most of recorded history. The last Mexican governor of California, Pio Pico, granted Rancho Punta de los Lobos, encompassing most of today’s western San Francisco to Benito Diaz in June 1846. Diaz left his lands unimproved, although a few squatters laid claims to what was then a remote part of San Francisco.⁴⁰

In 1868, the San Francisco Board of Supervisors passed the Outside Lands Ordinance, which affected all unsurveyed “outside lands” within the city’s corporate boundaries, including the Richmond and Sunset Districts. The new legislation was intended to facilitate the orderly development of areas within the city’s path of expansion; settle land claims; and set aside public lands for parks (including a 999-acre tract that would eventually become Golden Gate Park), schools, fire stations, and a city cemetery (now Lincoln Park). In 1870, the “Official Map of the Outside Lands” was published, extending the grid of downtown San Francisco and the Western Addition into the western portions of San Francisco.⁴¹ Development of these outside lands was slow until the establishment of Golden Gate Park in the 1890s, and accelerated after 1906 as thousands of refugees from the earthquake and fire fled to these undeveloped areas of the city. The residential portions of the project area were almost entirely developed within the 15-year timeframe from the mid-1930s to the late 1950s.

³⁶ Ibid.

³⁷ Rudo, Mark Ogden, *The Prehistory of San Francisco*, Unpublished Master’s thesis, Department of Anthropology, San Francisco State University, On file (S-6160), California Archaeological Inventory, NWIC, Rohnert Park, California, 1982, pp. 10, 21.

³⁸ Meyer, Jack; White, Greg; Alvarez, Susan, *Prehistoric Archaeology: Overview and Research Context in SF-80 Bayshore Viaduct Seismic Retrofit Project*. Edited by Mary Praetzellis. Prepared by Anthropological Studies Center. Prepared for Caltrans District 4, Oakland, 2001.

³⁹ ESA, *San Francisco Westside Recycled Water Project, Final Historic Resources Evaluation*. Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, September 2014.

⁴⁰ VerPlanck, Christopher, “Social and Architectural History of the Richmond District,” *The Western Neighborhoods Project*. Available online at http://www.outsidelands.org/richmond_arch.php, Accessed January 17, 2013.

⁴¹ Ibid.

Richmond District

Today's Richmond District was originally home to a number of ranches and dairy farms beginning in the 1860s. Several local dairy owners built the first major road from the City corporation boundary to Point Lobos during this time, called the Point Lobos and San Francisco Toll Road (now Geary Boulevard). The new toll road allowed farmers to transport their products to the market downtown and facilitated easy transportation of day-trippers from the urban portions of the city to Ocean Beach.⁴²

From the late 1860s to the early 20th century, the Golden Gate Cemetery was located in what is now Lincoln Park. The cemetery was also referred to as "Potter's Field." Potter's Field is a generic name for any graveyard at which the impoverished and/or anonymous are buried. Golden Gate Cemetery was a municipal facility where a large proportion of San Francisco's poor and indigent population was interred in the latter half of the 19th century. This municipal cemetery was considered a less desirable place to be interred than the numerous cemeteries in San Francisco maintained by religious and fraternal groups.⁴³ The cemetery also contained a large number of Chinese individuals (more than 4,000), as well as members of many of the City's other myriad ethnic groups. All human remains were required to be moved from the City of San Francisco following a 1900 city ordinance that all burials be removed from the city limits; however, many burials were never exhumed. In Golden Gate Cemetery, records indicate that by 1893 approximately 18,000 individuals had been interred in the cemetery, while surviving documents suggest that fewer than 1,000 were exhumed and moved to designated cemeteries in the City of Colma. Within the past several years, more than 800 individuals have been removed and reinterred during archaeological excavations at the California Palace of the Legion of Honor.⁴⁴ Additional burials have been uncovered at Clement Street and 32nd Avenue.⁴⁵

Development of the Richmond District did not begin in earnest until additional transportation improvements were made to access this remote area of San Francisco. To access the Richmond District and spur real estate development, street railway franchises were granted to several different companies, with the primary routes following Geary Boulevard (franchise granted to the Park and Ocean Railroad Company in 1877) and California Street (franchise issued to the California Street Railroad Company in 1878). These lines were initially operated with horse cars, and were later replaced by steam trains and then electric streetcars in the early 20th century. The growing popularity of Golden Gate Park (see discussion below) and the Bay District Race Track in the latter part of the 19th century, led to the creation of several cross-district lines running north-south.⁴⁶

Before 1906, residential development occurred slowly in the Richmond District, even though it was subdivided and more accessible. The initial late-19th century development was clustered along the

⁴² Ibid.

⁴³ Buzon, Michele R.; Walker, Phillip L.; Verhagen, Francine Drayer; Kerr, Susan L., "Health and Disease in Nineteenth-Century San Francisco: Skeletal Evidence from a Forgotten Cemetery," *Historical Archaeology*, 39(2):1-15, 2005. Available online at <http://www.jstor.org/discover/10.2307/25617245?sid=21105323697401&uid=3739560&uid=2&uid=4&uid=3739256>.

⁴⁴ Chattan, Cassandra with Katherine Flynn and Dea Bacchetti, *Excavations at the California Palace of the Legion of Honor*, On file (S-23344), NWIC of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California, 1997.

⁴⁵ Dean, Randall, San Francisco Planning Department, Environmental Planning Division Archeologist, Personal Communication with Heidi Koenig, ESA, Regarding SFWRWP Archaeological Studies, October 13, 2010.

⁴⁶ VerPlanck, Christopher, "Social and Architectural History of the Richmond District," The Western Neighborhoods Project. Available online at http://www.outsidelands.org/richmond_arch.php, Accessed January 17, 2013.

principal transportation lines of California Street, Geary Boulevard, Fulton Street (along the northern edge of Golden Gate Park), and several north-south cross streets. Much of the development along these corridors was the result of speculative development undertaken by local builder/developers such as Fernando Nelson and realtors such as Greenwood and DeWolfe.⁴⁷

The earthquake and fire of 1906, which destroyed most of downtown San Francisco, the South of Market district, and parts of the Western Addition and the Mission, drove thousands of refugees to open parcels of land at the edge of the city, including the Richmond District. The earthquake refugees were initially housed in small wood-frame “refugee shacks” quickly erected by the City in public parklands. As in other districts that experienced an influx of “temporary” earthquake refugees, many people decided to settle permanently in the Richmond District. Parcels were subdivided within a few months of the earthquake, and new houses were constructed across the district.⁴⁸

New residential development occurred quickly, and the Richmond District was largely built out by the late 1920s. The increasing popularity of the automobile reduced the perceived distance between downtown and the Richmond, and encouraged more people to build flats and single-family homes with ground-level garages. Geary Boulevard and Clement Street were developed as automobile-scaled commercial corridors in the 1910s and 1920s. Major cultural and religious institutions such as St. John’s Presbyterian Church and Temple Emanu-El relocated from downtown and the Western Addition to serve the various ethnic groups now living in the Richmond.⁴⁹

Cabrillo, Lake, Clement and Anza Streets, and 16th, 24th, 25th, and 36th Avenues

Similar to the Richmond District, most of the residential areas surrounding Cabrillo, Lake, Clement, and Anza Streets, as well as those surrounding 16th, 24th, 25th, and 36th Avenues outside but adjacent to the C-APE were not constructed until after the 1906 earthquake; much of the construction was completed during the residential building boom of the 1920s. Although residential construction in the area did not occur in earnest until the early 20th century, the area today is composed primarily of two- to three-story single-family row houses, as well as multi-unit apartment buildings, built primarily in the 1920s in the various revivalist architectural styles popular at the time, with fewer infill residences and apartments constructed in the 1940s and 1950s. Architectural examples from the 1900s–1910s are rarer still, with only a handful of these early structures evident along certain portions of Clement and Lake Streets today.

The local north-south roadways of 16th, 24th, 25th, and 36th Avenues were designed to have paved asphalt surfaces with either concrete “armored” curbs (i.e., with curved metal edges) or granite curbs, concrete sidewalks, and standard rights-of-way of approximately 40 feet. The east-west collector roadways Cabrillo, Lake, Clement, and Anza Streets were designed in a similar manner, but with slightly wider rights-of-way of approximately 50 feet. While the area is almost entirely residential in nature, some ground-floor level commercial uses, such as small retail establishments and restaurants, exist on some street corners along these larger east-west collector streets.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

Golden Gate Park

At 1,017 acres, Golden Gate Park is San Francisco's second largest urban park after the Presidio. The park is approximately 3.5 miles long by 0.5 mile wide, extending from the east at Stanyan Street to its western boundary at the Great Highway next to the Pacific Ocean. The northern boundary of Golden Gate Park is Fulton Street; the park extends south to Lincoln Way and includes the Panhandle, which runs from Stanyan Street on the west to Baker Street on the east.

By the 1860s, the need was apparent for a large public park to accommodate the substantial population growth of San Francisco during that decade. San Francisco's mayor and the Board of Supervisors approved a legal settlement between the City and County of San Francisco (CCSF), the squatters, and other land owners in the area of present-day Golden Gate Park in January 1868, and the state legislature ratified the settlement in March 1868. An April 1870 act of the state legislature set the park boundary and proclaimed the inception of Golden Gate Park. The first park commissioners appointed William Hammond Hall to survey and prepare maps of the park area, and Mr. Hall was appointed the first park superintendent in August 1871.⁵⁰

The creation of Golden Gate Park started in the Panhandle at the eastern end of the park because it was in the area closest to the city. Subduing the sandy soil initially posed a great challenge for the park's designers. The first stage involved stabilizing the ocean dunes, which covered three-quarters of the park area, by planting trees. By 1875, about 60,000 trees—mostly blue gum eucalyptus, Monterey pine, and Monterey cypress—were planted. By 1879, that number more than doubled, to 155,000 trees over 1,000 acres.⁵¹

In 1873, some 15,000 people visited the park, and by 1876, development had reached the middle of the park near today's Conservatory of Flowers. By the late 1880s, several streetcar lines made the park accessible and increased its popularity. The McAllister and Haight Street cable car lines brought people to the eastern end of the park for recreation, which made the area a desirable residential district.⁵²

The establishment of the California Midwinter International Exposition of 1894, also referred to as the "Midwinter Exposition" or the "Midwinter Fair," provided the largest increase in attendance and development within the park. The Midwinter Fair was the idea of M.H. de Young, who was the editor and owner of the San Francisco Chronicle at the time. The fair operated for six months in the eastern portion of Golden Gate Park, and its most enduring legacies are the Music Concourse, the M.H. de Young Memorial Museum (which was remodeled over the years and recently replaced with the new M.H. de Young Museum), the Japanese Tea Garden, and Stow Lake.⁵³

Two men share the credit for the creation of Golden Gate Park: engineer William Hammond Hall (1846–1934) for the park framework and initial landscaping, and horticulturist John McLaren (1846–1943), who presided over the park as its superintendent for 53 years. Hall designed the curving roadways that took advantage of the terrain, kept driving speeds low, and sheltered users from the wind. McLaren wanted to

⁵⁰ National Park Service (NPS), National Register of Historic Places Registration Form, Golden Gate Park, October 2004.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

create naturalistic landscape features by working with nature, which he did by establishing plants and trees that could tolerate the sandy soil and foggy conditions.⁵⁴

Although it is almost entirely a man-made landscape, Golden Gate Park is a balance of natural features and recreational amenities. The more developed portions of the park are generally on the eastern side, while the park's more naturalistic forms are located toward the middle and western edges. Today, the park is home to 10 city landmarks, including one building—the Golden Gate Park Conservatory (built in 1879), which is listed in both the National Register and California Register. In 2004, Golden Gate Park in its entirety, including 137 contributing resources, was listed in the National Register as a historic district.⁵⁵

The park's circulation system is considered one of many character-defining features of the historic district. Other character-defining features of the historic district include the park's spatial relationships, topography and grading, vegetation, natural features, recreational facilities, buildings and structures, and utilities and infrastructure. Two meandering east-west roads, John F. Kennedy Drive and Martin Luther King Jr. Drive, were originally named Main Drive and South Drive, respectively. These roadways were part of Hall's original design, which created curving paths that provided a series of ever-changing vistas as visitors moved through the park. Construction of most of the park roads began in the 1870s and was completed by the turn of the 20th century.

The Central Reservoir and pump station were constructed in 2002 to meet modern water needs, and is considered a noncontributor to the Golden Gate Park National Register Historic District.⁵⁶

Sunset District

The Sunset District is generally bounded by Golden Gate Park to the north, Sloat Boulevard to the south, the Pacific Ocean to the west, and Stanyan Street/Golden Gate Heights to the east. Similar to all of western San Francisco, the majority of the Sunset District was covered with sand dunes until the late 19th century and well into the early 20th century. The Oceanside neighborhood was situated within the Sunset District, east of the Great Highway, west of 40th Avenue, south of Lincoln Way, and north of Sloat Boulevard. The name "Oceanside" was used by area residents of the area from the early 1900s until about 1930. Because the Oceanside neighborhood was geographically isolated, its early history is distinct from that of the rest of the Sunset District.⁵⁷

Development in the Sunset began primarily in the eastern section, which was more accessible from the city center, and in the outer Sunset, which people could reach from the south. The Central Ocean Toll Road appears on the 1869 U.S. Coast Survey map. The toll road traversed the Sunset, starting south of Sloat Boulevard at about 36th Avenue, and meandered northeast through the Sunset between 17th and 18th Avenues and then east toward downtown. The first building in the Oceanside neighborhood (now the Sunset District) was the Ocean Side House. In 1866, a local squatter named George Green, Sr. built this roadhouse on the Great Highway between present-day Ulloa and Vicente Streets.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Sunset Parkside Education and Action Committee (SPEAK), *Historic Context Statement of the Oceanside: A Neighborhood of the Sunset District, San Francisco*, Updated March 2010.

The Giant Powder Company relocated to the Sunset District and began manufacturing dynamite in February 1870, following an explosion at their Glen Park Canyon facility in November 1869. The Sunset factory was located on a 100-acre property bounded by today's Kirkham and Ortega streets, and 20th and 32nd avenues, which is two blocks east of the C-AAPE. Giant Powder Company operations continued at the Sunset factory until January 1879, when another explosion killed four people and the factory was relocated again, this time across the bay to Berkeley.⁵⁸

In 1883, Leland Stanford began running a steam train along H Street (now Lincoln Way) from Stanyan Street to the beach. In 1898, the line changed to electric train cars and then later to streetcars. The trains made access to the beach easier and encouraged population growth in what was then a remote part of San Francisco.^{59,60}

By 1895, a cluster of buildings referred to as "Carville" began to emerge on (and in the vicinity of) land bounded by Lincoln Way, Irving Street, 48th Avenue, and La Playa, near the southwest corner of Golden Gate Park. This cluster consisted of former horse cars and cable cars that were sold as surplus by streetcar companies and moved out to the beach. Within a few years, this community expanded to other blocks near the ocean. By about 1910, the community stretched along the Great Highway from Lincoln Way south to Moraga Street and had a population of 2,000, with its own stores, restaurants, churches, and hotels.⁶¹

New residents to the outer Sunset began building conventional wood-frame houses amid the converted streetcars shortly after 1900. The residents of these houses regarded the streetcar residences as an embarrassment and an impediment to progress. In 1913, Alexander Russell, president of the Oceanside Improvement Club, received permission from Emma Sutro Merritt, Adolph Sutro's daughter, to demolish the original cluster of Carville houses on her land at Lincoln Way and the Great Highway. Many other Carville houses still stood in 1915, but few were left by the end of the 1920s. Today only one house made of streetcars, at 1632 Great Highway between Lawton and Moraga Streets, is known to remain.⁶²

A housing construction boom from the 1920s through the 1950s linked Oceanside with the rest of the Sunset District. The 1930s brought developers such as Ray Galli, the Stoneson Brothers, Chris McKeon, and Henry Doelger Enterprises to construct affordable row housing in the outer Sunset. The postwar period saw another wave of housing construction in the outer Sunset, supported primarily by low-interest loans and accessible lending policies. During this postwar housing boom, the last of the undeveloped sand lots were filled with stucco-clad houses, blurring the boundary between the earlier Oceanside neighborhood and today's outer Sunset neighborhood.⁶³ The homes produced by the various builders were remarkably similar.

⁵⁸ Rose, Evelyn, "Explosive Revelation: Glen Canyon Ties to the Nobel Prize," *Glen Park News*, Winter 2007-2008, Available online at http://foundsf.org/index.php?title=Giant_Powder_Company, Accessed February 20, 2015.

⁵⁹ Unagaretti, Lorri, "The Changing Physical Landscape of the Sunset District: The Late 1800s through the Mid-1900s, 2004," *Encyclopedia of San Francisco*, San Francisco Museum & Historical Society. Available online at <http://www.sfhistoryencyclopedia.com/articles/c/chanSunsetDistr.html>, Accessed January 17, 2013.

⁶⁰ SPEAK, *The Oceanside Neighborhood of San Francisco's Sunset District, Historic Resources Inventory, San Francisco, CA*, Updated May 2010.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid.

Henry Doelger Enterprises built about 25,000 houses in San Francisco, mostly in the Sunset District.⁶⁴ Like his competitors, Doelger provided well-built but inexpensive homes for middle-income families. The area between 27th and 39th Avenues and Kirkham and Quintara Streets was developed primarily by Doelger from the late 1920s to the early 1940s, and was nicknamed “Doelger City.” Between 1934 and 1941, Doelger was the largest homebuilder in the United States. During peak periods such as the late 1930s, the Doelger organization completed homes at the rate of two per day.⁶⁵

Sloat Boulevard, Vicente Street, Lawton Street, and 34th, 36th, and 37th Avenues

Sloat Boulevard was built in the 1920s as an automobile thoroughfare and an extension of a streetcar line, connecting 19th Avenue (Highway 1) with the Great Highway and Skyline Boulevard (Highway 35) as this part of San Francisco began experiencing a residential building boom during this period. Streetcar tracks ran down the median of Sloat Boulevard from the 1920s to the 1950s. Similar to the development of the Sunset District in general, the vast majority of the 17 city blocks along 34th, 36th, and 37th Avenues, from Lincoln Boulevard to Sloat Boulevard, as well as the short segments of Vicente and Lawton Streets in the C-APE, were constructed in the 1930s and 1940s by developer Ray Doelger (see discussion of Doelger, below). Exceptions include the block of 34th Avenue closest to Golden Gate Park between Lincoln Boulevard and Irving Street, which was completed in the 1910s and 1920s. On 36th Avenue, specifically, the three blocks between Noriega and Quintara Streets were largely completed by the late 1950s, and the block between Ortega and Pacheco Streets was the last to be developed in the 1960s.

Lake Merced and San Francisco Zoo

Similar to the rest of western San Francisco, the area that now encompasses Lake Merced, including the Zoo and the Oceanside WPCP, was a windswept expanse of chaparral-covered sand dunes for most of this area’s history. This area was originally part of the Rancho Laguna De La Merced, a 2,200-acre land grant given by the Mexican governor to Jose Antonio Galindo in 1835. The area eventually become home to local squatters, including George Green, Sr., (described above) who established a farm in the area in the 1860s, and a resort called the Ocean Side House (later Ocean Boulevard Hotel) built in the 1870s near today’s intersection of Ulloa Street and Great Highway.⁶⁶

The area around Lake Merced was also developed for recreation in the late 1800s; by 1875, three hotel resorts (“lake houses”) had been built around the lake. In 1868, the Spring Valley Water Works Company (predecessor to the SFPUC) spent \$150,000 to purchase the water rights to Lake Merced. This began a several-decades- long ownership of the area. In 1877, Spring Valley began to purchase land encircling Lake Merced and, by the turn of the 20th century, owned 2,000 acres stretching from the county line to Sloat Boulevard and from Junipero Serra to the ocean.⁶⁷

The use of the lake and surrounding watershed lands for the city’s water supply continued from the 1870s until the 1920s, when Spring Valley began selling off its holdings to the City of San Francisco for

⁶⁴ Zinns, Ken, "The Sunset Developers," The Western Neighborhoods Project. Available online at <http://www.outsidelands.org/sunset-developers.php>, Accessed January 23, 2013.

⁶⁵ Ibid.

⁶⁶ Shoup, Lawrence, *Cultural Resources Overview: Lake Merced Transport, San Francisco Clean Water Program, San Francisco, California*, January 1981.

⁶⁷ Ibid.

recreational development around the lake. Both Skyline and Sloat Boulevards were developed through the area in the 1920s to provide access to the growing residential areas north of Lake Merced. In 1922, the Spring Valley Water Company sold 60 acres to the City for the development of the Fleishhacker Pool and Playground.⁶⁸ Named after and donated by Herbert Fleishhacker, a San Francisco philanthropist and Park Commission president, the Fleishhacker Playground and Pool opened in 1925 to provide swimming opportunities for San Francisco's residents. The pool held 6 million gallons of seawater that was pumped directly from the Pacific Ocean. At 1,000 feet long and 150 feet wide, it was the largest outdoor swimming pool in the world at that time. Immediately next to the pool was the Fleishhacker Playground, which was also built in 1925.^{69,70}

In 1929, Herbert Fleishhaker also established the San Francisco Zoological Gardens (San Francisco Zoo) next to the Fleishhaker Pool and Playground, which began with just a few lion cubs and monkeys in cages. In the early 1930s, Spring Valley sold another 68 acres adjoining the Zoo, which became the site of the Zoological Gardens. The federal Work's Progress Administration (WPA) program of the 1930s built the Zoological Gardens' major exhibits, including the central fountain, elephant pool, and lion's den. The grand opening of the Zoo was held at the completion of the WPA project in 1938. Entrance to the Zoo was free to the public until 1970; in 1971, the Fleishhaker Pool was filled in to become a parking lot for the San Francisco Zoo.⁷¹ The pool house existed until 2012, when it was partially destroyed by fire and torn down.⁷² Only a remnant wall of the former entrance to the pool house lies outside of and to the west of the parking lot, outside the C-APE. The pool house had been listed in the California Register (National Register status code "2S") prior to its demolition, but would no longer be eligible due to the loss of approximately 95 percent of the remainder of the building.

In the 1920s, the southern end of the Great Highway was a two-lane highway that curved around the southern edge of the Fleishhaker Pool, intersecting with Skyline Boulevard at today's Herbst. This highway was bypassed in the late 1950s when the Great Highway was extended in a southerly direction, parallel with the Pacific Ocean, and intersected with Skyline Boulevard about 0.25 mile farther south. After completion of the Great Highway extension, the former segment of the Great Highway in the C-APE became Zoo Road, an internal, employee-only access and maintenance road within the Zoo; the remaining portion of the highway was renamed Herbst Road and made available for public parking at the Zoo. The roads today have these same alignments as they did in the 1920s, but are now used for internal Zoo circulation or public parking. By the late 1950s, the streetcar tracks were removed from the median of Sloat Boulevard and paved over for additional automobile parking to serve the Zoo and commercial uses at the western end of this roadway within the C-APE.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ La Bountty, Wood, "Fleishhacker Pool," The Western Neighborhoods Project, 2010, Available online at <http://www.outsidelands.org/sw8.php>, Accessed December 10, 2014.

⁷¹ Unagaretti, Lorri, "The Changing Physical Landscape of the Sunset District: The Late 1800s through the Mid-1900s, 2004," *Encyclopedia of San Francisco*, San Francisco Museum & Historical Society. Available online at <http://www.sfhistoryencyclopedia.com/articles/c/chanSunsetDistr.html>, Accessed January 17, 2013.

⁷² Oceanbeach Bulletin, "City starts demolition of Fleishhacker Pool House," December 17, 2012, Available online at <http://oceanbeachbulletin.com/2012/12/17/fleishhacker-pool-house-demolished/>, Accessed October 7, 2014.

California Army National Guard

Immediately south of the Zoo and west of Lake Merced, in the location of today's Oceanside WPCP, the US Army once held about 40 acres and established a shore battery for coastal defense purposes in 1901. The land was purchased for \$42,162 and named Laguna Merced Military Reservation (later Fort Funston). The Army purchased more land in 1917 and the area had become large enough to justify the installation of a US Life-Saving Station, called the Southside Station, which was one of 14 similar stations located along the West Coast for use as navigational aids and ship-rescue. Battery Bruff, a gun emplacement with two 5-inch guns on pedestal mounts, was installed during World War I at the extreme northwest of the military reservation and just south of Fleishhaker Pool along today's Armory Road. Another gun emplacement called Battery Howe was constructed farther to the south of Bruff and within the 40-acre reserve. This battery had four 12-inch guns. Battery Bruff was abandoned in 1919, soon after it was completed, but Battery Howe remained active through World War II. Battery Howe's structures were demolished in 1964.⁷³

Currently only 7 acres, the CA ARNG property is the only remaining vestige of the site's previous military use (the property had previously transferred from federal to state ownership by 1954). Immediately north of the Oceanside WPCP is the CA ARNG Readiness Center and associated parking lot. The Readiness Center was completed in March 1954 as part of the state's armory construction program during the post-World War II / early Cold War period. Following the Korean Conflict in 1950, it became apparent to the US government that a more robust military was needed, and both the US Army and CA ARNG increased troop strength, the latter to about 450,000 soldiers, which required the construction of training and staging facilities. At a cost of \$354,320, the Readiness Center was a five-unit and Battalion Headquarter, standard plan "H-Type" armory designed by State Division of Architecture and Ainsworth, Douglas, and Freeman of Pasadena. Besides the Readiness Center in San Francisco, the CA ARNG constructed five other "H-Type" armories between 1951 and 1955 in Burbank, Richmond, San Jose, Glendale, and Inglewood, all based on the Ainsworth, Douglas, and Freeman plans. The San Francisco property also includes a vehicle storage building constructed in 1952, a shop building constructed in 1957, and a second vehicle storage building constructed in 1994. The facility accommodated various units over the years, including a brief period when it housed administrative functions for the Nike missile launch site located 1 mile south. The Nike missile site was deactivated in 1963.⁷⁴ Due to a lack of historical and architectural significance, the Readiness Center was found ineligible for listing in the National Register and California Register through a survey evaluation for the CA ARNG conducted by JRP Historical Consulting, LLC (JRP) in 2013.⁷⁵

Oceanside WPCP

Planning for a new treatment plant on the site of the Oceanside WPCP dates to 1971 when the master planning for the City's Wastewater Program first began in response to the federal Clean Water Act. The Southwest Treatment Plant, as it was then called, was to have been constructed as a joint use tenant with the Zoo on Department of Recreation and Parks property, just south of the Zoo and northwest of Lake Merced. At the time, the majority of the 40-acre site was undeveloped dunescape except for a 7-acre

⁷³ Shoup, Lawrence, *Cultural Resources Overview: Lake Merced Transport, San Francisco Clean Water Program, San Francisco, California*, January 1981.

⁷⁴ JRP Historical Consulting, LLC, San Francisco Readiness Center, Department of Parks and Recreation (DPR) Primary Record Form, July 9, 2013.

⁷⁵ Ibid.

portion that contained the CA ARNG (see discussion above). After nearly two decades of planning and construction, the Oceanside WPCP was completed in 1994 to treat wastewater from the west side of the city. The plant treats an average dry weather flow of about 17 million gallons a day and has a total capacity of 65 million gallons during wet weather. Cleaned water is discharged from the plant to the Pacific Ocean through the Southwest Ocean Outfall.

Paleontological Setting

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. Fossil discoveries provide a historical record of past plant and animal life and can assist geologists in dating rock formations. In addition, fossil discoveries can expand the understanding of the time periods and geographic range of existing and extinct flora or fauna.

Assessment Standards

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources.⁷⁶ The SVP has helped define the value of paleontological resources and, in particular, states the following:

- Vertebrate fossils and fossiliferous (fossil-containing) deposits are considered significant nonrenewable paleontological resources, and are afforded protection by federal, state, and local environmental laws and guidelines.
- A paleontological resource is considered to be older than recorded history, or 5,000 years B.P., and is not to be confused with archeological resource sites.
- Invertebrate fossils are not significant paleontological resources, unless they are present with an assemblage of vertebrate fossils or they provide previously unknown information on the origin and character of the plant species, past climatic conditions, or the age of the rock unit itself.
- A project paleontologist, special interest group, lead agency, or local government can designate certain plant or invertebrate fossils as significant.

Based on these principles, the SVP has outlined criteria for screening the paleontological potential of rock units and has established assessment and mitigation procedures tailored to accommodating such potential. High- and low-potential rocks are determined by applying the following criteria:⁷⁷

- **High Potential.** Rock units (or formations) in which vertebrate or significant invertebrate fossils have been found. These rock units include sedimentary and some volcanic formations that contain significant fossil resources anywhere within their geographic extent and sedimentary deposits formed in a time period or composed of materials suitable for the preservation of fossils. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.

⁷⁶ Society of Vertebrate Paleontology (SVP), Standards and Guidelines, News Bulletin Number 163, January 1995.

⁷⁷ Ibid.

- **Low Potential.** Rock units that have few, if any, records of vertebrate fossils in institutional collections, or that have been shown in surveys or paleontological literature to be largely absent of fossil resources. Low-potential rocks also include metamorphic and most volcanic rocks.

Although not discussed in SVP standards, artificial fills, slope deposits (such as colluvium,⁷⁸ landslides, and earth flows), and soils are materials with little or no potential to contain paleontological resources. While such materials were originally derived from rocks, they have been weathered or reworked such that fossils would not likely be preserved.

Unconsolidated Holocene-age dune sands underlie the entire project area, except for the Oceanside WPCP. These deposits consist of windblown, loose to medium-dense, poorly graded sands. Dune sand in this area was derived predominantly from Ocean Beach and transported by prevailing winds across the relatively level topography, which imposed few obstructions. Dune sand deposits are estimated to be at least 100 feet thick in the project area, although the depth can become much more shallow on the windward side of topographic highs.⁷⁹ There are no recorded fossil sites within the dune sands that underlie the project area, and, geologically speaking, dune sands are very young deposits that are unlikely to contain remains old enough to be considered fossilized. Thus, dune sand is considered to be of low paleontological productivity, and therefore low scientific importance.

At the Oceanside WPCP, the site of the recycled water treatment plant, soil would be removed to depths of approximately 23 feet for construction of the storage reservoir beneath the treatment plant. Some of the excavated soil would be artificial fill, which is present to depths of about 5 feet. This fill soil would not contain paleontological resources because it was not naturally deposited. The excavation would extend approximately 23 feet into the underlying Colma Formation. Most fossils in the Peninsula and San Francisco areas are generally found along the Pacific Coast in marine units, such as the Purisima Formation, Monterey Formation, Butano Formation, Colma Formation, and Merced Formation, and in locations within the outcropping marine units in the Santa Cruz Mountains. Fossils found along the coast include vertebrates (e.g., extinct camels, horses, and sea mammals) and invertebrates (e.g., clams and corals). While no fossil localities have been identified in the immediate project vicinity in the Colma Formation, this geologic unit has a high paleontological sensitivity. A search of the fossil collections database at the University of California Museum of Paleontology did not reveal any vertebrate fossil localities within the Colma Formation in San Francisco.⁸⁰ Nevertheless, vertebrate fossils, including parts of mammoths and bison, have been found in the Colma Formation in San Francisco, near the base of Telegraph Hill.⁸¹ In addition, a mammoth tooth was discovered in the Colma Formation during excavation for the Transbay Transit Center in downtown San Francisco in 2012.⁸²

⁷⁸ A loose deposit of rock debris accumulated through the action of gravity at the base of a cliff or slope.

⁷⁹ Schlocker, Julius, *Geology of the San Francisco North Quadrangle, California*, U.S. Geological Survey, Professional Paper 782, Washington D.C., 1974.

⁸⁰ University of California Museum of Paleontology, Collections Database <http://www.ucmp.berkeley.edu/science/collections.php>, February 20, 2015.

⁸¹ Rodda, Peter U.; Baghai, Nina, "Late Pleistocene Vertebrates from Downtown San Francisco, California," *Journal of Paleontology*, Vol. 67, No. 6, November 1993, pp. 1058-1063. Available online at <http://www.jstor.org/discover/10.2307/1306122?uid=3739560&uid=2&uid=4&uid=3739256&sid=21104248753471>.

⁸² Transbay Transit Center, "Archaeology." Available online at <http://transbaycenter.org/project/archaeology>, Accessed on February 11, 2015.

Research Methods and Results

Archaeological Resources

The research methods for archaeological resources included a records search at the Northwest Information Center (NWIC), preparation of a CEQA [archaeological] APE and Archaeological Survey Plan,⁸³ a limited pedestrian survey, contact with Native American groups that may have interest in the project area, and preparation of a Historic Context and Archaeological Survey Report.⁸⁴ These methods and their results/findings are described below.

Records Search Methods and Results

The records search completed at the NWIC indicated that 10 archaeological resources studies have been completed within or immediately adjacent to the C-APE. These studies are on file at the NWIC (see **Table 5.2-1**). Twenty-three archaeological resources have been recorded within 1 mile of the project C-APE, including 11 prehistoric sites, 11 historic-period sites, and one multicomponent site. No archaeological resources have been recorded within the C-APE.

TABLE 5.2-1
CULTURAL RESOURCES STUDIES PERFORMED WITHIN OR ADJACENT TO THE C-APE

Study No.	Title	Author	Year
S-3247	Cultural Resource Overview: Lake Merced Transport San Francisco Clean Water management Program	Shoup and Baker	1981
On file, SFPUC	Great Highway West Side Transport Archeological Report	Heid	1976
S-22657	Phase 1 Archeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	Science Applications International Corporation	2000
S-17662	Cultural Resources Evaluation and Monitoring of Construction of Cisterns Nos. 16, 17, 18, and 19 in the Sunset/Richmond District, San Francisco	Flynn, Leven, and Bacchetti	1994
S-3242	San Francisco Water Management Archeological Report	Heid	n.d.
S-3240	Archeological Survey of Proposed Southwest Outfall and Southwest Water Pollution Control Plant	Albee and Miller	1976
S-19127	Cultural Resources Investigation for the Bayside Phase III Discharge Alternatives EIR	Hupman and Chavez	1993
S-32271	Archeological Survey Report Pine Lake Trail	EDAW	2006
S-18364	Preliminary Cultural Resources Evaluations of the Richmond Transport Sewer Alternatives	Chavez and Ramsey	1979
S-33041	Archeological Research Issues for the Point Reyes National Seashore – Golden Gate National Recreation Area	Anthropological Studies Center	2003
S-23344	Excavations at the California Palace of the Legion of Honor	Chattan	1997

⁸³ ESA, SFPUC San Francisco Westside Recycled Water Project, Draft CEQA Archaeological Area of Potential Effects and Archaeological Survey Plan. Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, 2014.

⁸⁴ ESA, SFPUC San Francisco Westside Recycled Water Project, Draft Historic Context and Archaeological Survey Report. Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, December 2014.

Archaeological Field Survey Methods and Results

A mixed-strategy survey was proposed for the C-APE. Because a high percentage of the pipeline alignments would be constructed within paved roadways, standard pedestrian methods for identifying archaeological materials are not effective. However, the C-APE contains areas where the ground surface is exposed, including portions of the Oceanside WPCP, near the Central Reservoir in Golden Gate Park, and potential reservoir locations and staging areas at the San Francisco Zoo. Each of these areas was examined on-foot to determine whether archaeological materials and/or features were present. An archaeologist inspected these locations during summer 2014 using 5- to 10-meter transects to examine as much exposed surface as possible. The survey findings for each of these areas are described below.

Oceanside WPCP. The C-APE at the Oceanside WPCP is very disturbed as a result of past construction activities. The majority of the facility is paved, although some landscaped areas were periodically scraped to reveal ground surface and check all exposed soils for cultural materials. No archaeological resources were observed.

Golden Gate Park. The C-APE at the Central Reservoir has been heavily disturbed from grading, maintenance activities, and/or landscaping. The landscaped areas were periodically scraped to reveal ground surface and check all exposed soils for cultural materials. No archaeological resources were observed.

San Francisco Zoo. The C-APE includes buried reservoir locations and staging areas. The C-APE is landscaped and paved. No archaeological resources were observed.

Native American Contact

A sacred lands search request was submitted to the Native American Heritage Commission (NAHC) on June 23, 2014, with follow-up outreach in August 2014; a response was received on September 5, 2014. A records search of the sacred lands file failed to indicate any NAHC-listed Native American resources of Native American concern in the C-APE. The NAHC provided a list of Native American individuals and organizations that might have additional information or concerns. Each person on the list was contacted by letter on September 8, 2014. No response from these individuals had been received as of Draft EIR publication.

Historic Architectural Resources

The research methods for historic architectural resources in or near the C-APE included a records search at the NWIC of the California Historical Resources Information System (CHRIS), a windshield survey of the C-APE, and correspondence with historical society contacts. Each of these methods, and their results, are described below.

Records Search Methods and Findings

A records search was conducted at the CHRIS NWIC on February 12, 2014 (File No. 13-1228). The purpose of the records search was to: (1) determine whether known cultural resources have been recorded within or near the C-APE; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification of historical themes. The records search consisted of examining the following documents:

- **CHRIS NWIC Base Maps.** U.S. Geological Survey San Francisco North and San Francisco South 7.5-minute topographic maps.
- **Resource Inventories.** California Department of Parks and Recreation (DPR) (1976), *California Inventory of Historical Resources*. California Department of Parks and Recreation, Sacramento; California Office of Historic Preservation (2008), *Historic Properties Directory Listing by City* (through August 2008).
- **Historic Background Sources.** Plans, maps, and historical overviews from the San Francisco Department of Public Works (1937–1994), National Park Service National Register Nomination for Golden Gate Park (2004), San Francisco Public Library Historic Photo Collection (2009–2010), published sources by the Sunset-Parkside Education and Action Committee, online sources at the Western Neighborhoods Project and Outside Lands (2009), and the San Francisco Public Library historical photo collection (2014). Anitta Waghorn (2003), *An Overview of Research Issues for Historical Archeology*. In *Archeological Research Issues for the Point Reyes National Seashore - Golden Gate National Recreation Area*, edited by Suzanne Stewart and Adrian Praetzellis. Prepared for the National Park Service; Nancy Olmsted (1991), *Guide to Historic Research in San Francisco*. Prepared for Caltrans District 4, Oakland; Jan Hupman and David Chavez (1993), *Cultural Resources Investigation for the Bayside Phase III Discharge Alternatives EIR, San Francisco, California*. Prepared for EIP Associates.
- **Prehistoric Archaeology Resources.** Suzanne Stewart (2003), *An Overview of Research Issues for Indigenous Archaeology*. In *Archeological Research Issues for the Point Reyes National Seashore – Golden Gate National Recreation Area*, edited by Suzanne Stewart and Adrian Praetzellis. Prepared for the National Park Service; T. L. Jones and K. A. Klar (2007) *Prehistoric California: Colonization, Culture, and Complexity*. pp. 99–124, AltaMira Press; San Francisco Planning Department, Major Environmental Analysis Division (now EP) Prehistoric Site Geographic Information System Project provided by Environmental Planning (EP) Archaeologist Randall Dean.
- **Ethnographic Sources.** Richard Levy (1978), *Costanoan*. In *California, Handbook of North American Indians, Vol. 8*, edited by Robert F. Heizer, pp. 485–495; William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.; L. Kroeber (1925) *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C.
- **Historic Maps.** An extensive online historic map collection with over 300 maps and views of San Francisco is available online at <http://davidrumsey.com>; H.W. Faust (1890), *Map of the City and County of San Francisco, California*, H.W. Faust publisher, San Francisco; Sanborn Insurance Company (n.d.), *Fire Insurance Maps of San Francisco*, available online at <http://sanborn.umi.com/splash.html>; General Land Office/Rancho plats of San Francisco Pueblo and Rancho Laguna de la Merced.
- **Environment.** Keith L. Knudsen, Janet M. Sowers, Robert C. Witter, Carl M. Wentworth, and Edward J. Helley (2000), *Preliminary Maps of Quaternary Deposits and Liquefaction Susceptibility, Nine-County San Francisco Bay Region, California: A Digital Database*. U.S. Geological Survey Open-File Report 00-444, Online Version 1.0, Menlo Park, California, available online at <http://pubs.usgs.gov/of/2000/of00-444/>; U.S. Department of Agriculture, Natural Resources Conservation Service (2008), *Web Soil Survey*, available online at <http://websoilsurvey.nrcs.usda.gov>; Jack Meyer (2002), *An Overview of Geoarchaeological Research Issues*. In *Archeological Research Issues for the Point Reyes National Seashore – Golden Gate National Recreation Area*, edited by Suzanne Stewart and Adrian Praetzellis. Prepared for National Park Service; Jack Meyer and Jeffery Rosenthal (2007),

Geoarchaeological Overview of the Nine Bay Area Counties. Prepared for Caltrans District 4, Oakland.

- **City Records.** A review of other historical reports prepared for the SFPUC’s WSIP, which are not currently on file with the NWIC, was also completed (these other historical reports are not currently on file with the NWIC). Information on San Francisco historical landmarks, as well as city tax assessor records, was also reviewed.

The records search indicated that two historical resources have been recorded within the project C-APE: a historic district and a city landmark. These include the Golden Gate Park National Register Historic District, including five roadway segments and the Panhandle, which are contributors to the District. **Table 5.2-2** lists elements of the District that were considered during this study. Table 5.2-2 also lists the San Francisco Landmark Doggie Diner sign, in the median of Sloat Boulevard.

**TABLE 5.2-2
 RECORDED HISTORICAL ARCHITECTURAL RESOURCES WITHIN
 OR IMMEDIATELY ADJACENT TO THE C-APE**

	Name	Age	Register Status	Location
1	Golden Gate Park National Historic District	1871-1943	National Register Historic District	Golden Gate Park, San Francisco
1.1	John F. Kennedy Drive (Main Drive)	1872, 1895 (altered)	Part of the Circulation System that contributes to the Golden Gate Park National Register Historic District	Between Stanyan Street to Martin Luther King Jr. Drive
1.2	Middle Drive West	1890 (altered)	Part of the Circulation System which contributes to the Golden Gate Park National Register Historic District	Between Overlook Drive to Martin Luther King Jr. Drive
1.3	Transverse Drive	1909 (altered)	Part of the Circulation System that contributes to the Golden Gate Park National Register Historic District	Between John F. Kennedy Drive and Martin Luther King Jr. Drive near Crossover Drive
1.4	Overlook Drive	1895 (altered)	Part of the Circulation System that contributes to the Golden Gate Park National Register Historic District	Between Middle West Drive and Transverse Drive
1.5	Crossover Drive	1936 (altered)	Part of the Circulation System that contributes to the Golden Gate Park National Register Historic District	Between Transverse Drive and Fulton Street
1.6	Golden Gate Park Panhandle	1872 (altered)	Contributor to the Golden Gate Park National Register Historic District	Between Oak and Fell Streets, and Stanyan and Baker Streets
2	Doggie Diner Sign	1966	San Francisco Landmark #254	Median of Sloat Boulevard and 45th Avenue

SOURCES: NPS, National Register of Historic Places Registration Form, Golden Gate Park, October 2004; *California Office of Historic Preservation, Historic Properties Directory Listing by City*, 2013.

Numerous contributing resources to the Golden Gate Park National Register Historic District are located outside the Golden Gate Park portion of the C-APE, but are relatively nearby. These resources range from the Polo Fields and Metson Lake, immediately adjacent to the roadways in the C-APE, to more distant resources such as the Conservatory of Flowers and the Music Concourse.

Historic Architectural Survey Methods and Results

Brad Brewster, ESA architectural historian, completed a reconnaissance-level survey of the entire C-APE, on June 4, 2014. The survey was intended to identify the presence and condition of previously recorded resources in the C-APE, primarily within the Golden Gate Park and Panhandle, such as John F. Kennedy Drive, Overlook Drive, Transverse Drive, Crossover Drive, and Middle Drive West. Other areas within the C-APE—such as Clement, Cabrillo, Lake, and Anza Streets, and 16th, 24th, 25th, and 36th Avenues in the Richmond District, and Sloat Boulevard, Vicente Street, and Lawton Street, and 34th, 36th, and 37th Avenues in the Sunset District—were also the subject of the reconnaissance-level survey on June 4, 2014. Finally, the areas in the C-APE along Skyline Boulevard, Sloat Avenue, Herbst Road, and portions of the roadways and parking lots around the San Francisco Zoo (Zoo Road) were also surveyed to the extent that they were accessible. Mr. Brewster recorded these areas with photography and field notes, but did not prepare DPR 523 A and B forms. Each roadway alignment was inspected for the presence of historic materials. Areas outside but immediately adjacent to the C-APE were noted and photographed. The following section summarizes the findings of the reconnaissance-level survey of the roadways in the C-APE where all pipelines, tanks, and booster pumps would be constructed.

Richmond District Roadways

The C-APE in the Richmond District includes a two-block segment of Lake Street between 14th and 16th Avenues, a four-block segment of 16th Street between Lake and Anza Streets, an eight-block segment of Anza Street between 16th and 24th Avenues, a two-block segment of 24th Avenue between Anza and Cabrillo Streets, a one-block segment of 25th Street between Fulton and Cabrillo Streets, a 12-block segment of Cabrillo Street between 24th and 36th Avenues, a four-block segment of 36th Avenue between Cabrillo and Clement Streets, and a three-block segment of Clement Street between 36th and 39th Avenues. All of these street segments are described briefly below (generally from north to south).

Lake Street within the C-APE, from 14th to 16th Avenues, is a two-lane neighborhood collector street, approximately 50 feet wide from curb to curb, with parallel parking and bike lanes. Within the C-APE, the roadway surface is modern paved asphalt with a combination of granite and concrete armored curbs, with newer (replacement) concrete curbs and concrete wheelchair ramps at most intersections. The residences facing Lake Street, immediately adjacent to but outside of the C-APE, were observed to be a combination of larger detached houses constructed between 1900s and 1920s, two- to three-story single-family row houses, as well as some larger apartment buildings from the 1920s, in various Revival styles.

16th Street within the C-APE, from Lake to Anza Streets, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with concrete curbs, with newer concrete wheelchair ramps at all intersections. The residences facing 16th Avenue, immediately adjacent to but outside of the C-APE, were observed to be primarily two- to three-story (two stories over a garage) single-family row houses constructed between the 1910s and 1920s, as well as some larger four-story apartment buildings from the 1920s, in various Revival styles. Commercial buildings from the 1950s and 1960s are located at the intersection of 16th and Geary Streets.

Anza Street within the C-APE, from 16th to 24th Avenues, is a two-lane neighborhood collector street, approximately 50 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with a mixture of granite and concrete curbs, with newer concrete

wheelchair ramps at all intersections. A newer concrete roundabout/traffic circle is located at the intersection of Anza Street and 23rd Avenue. The residences facing Anza Street, immediately adjacent to but outside of the C-APE, were observed to be primarily of two- to three-story apartment buildings, with a smaller number of single-family row houses, mostly constructed between the 1910s and 1920s, in various Revival styles.

24th Avenue within the C-APE, from Anza to Cabrillo Streets, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt (recently repaved) with concrete curbs, with newer concrete wheelchair ramps at all intersections. The residences facing 24th Avenue, immediately adjacent to but outside of the C-APE, were observed to be primarily one- to two-story (one story over a garage) single-family row houses constructed between the 1910s and 1920s, as well as some larger, three- to four-story apartment buildings dating to the 1920s on a few of the corners, in various Revival styles.

25th Avenue within the C-APE, from Fulton to Cabrillo Streets, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt (recently repaved) with concrete curbs, with newer concrete wheelchair ramps at all intersections. The residences facing 25th Avenue, immediately adjacent to but outside of the C-APE, were observed to be primarily two- to three-story (two stories over a garage) single-family row houses constructed between the 1910s and 1920s, as well as some larger, three- to four-story apartment buildings dating to the 1920s on a few of the corners, in various Revival styles.

Cabrillo Street within the C-APE, from 24th to 36th Avenues, is a two-lane neighborhood collector street, approximately 50 feet wide from curb to curb, with parallel parking and bike lanes. Within the C-APE, the roadway surface is modern, newly repaved asphalt with concrete curbs, with newer concrete wheelchair ramps at all intersections. The residences facing Cabrillo Street, immediately adjacent to but outside of the C-APE, were observed to be primarily of two- to three-story single-family row houses, mostly constructed between the 1910s and 1940s, in various Revival styles. A smaller amount of residential in-fill from the 1950s was also apparent along Cabrillo Street.

36th Avenue within the C-APE, from Cabrillo to Clement Streets, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with a mixture of all-concrete and steel armored curbs, with newer concrete wheelchair ramps at all intersections. The residences facing 36th Avenue, immediately adjacent to but outside of the C-APE, were observed to be primarily two- to three-story (two stories over a garage) single-family row houses constructed between the 1920s and 1940s, as well as a few detached single-family homes from the 1910s, in various Revival styles. There are also some larger, three- to four-story apartment buildings dating to the 1950s to the 1970s, closer to Geary Street. Decorative brick and cast concrete entry markers, one to either side of 36th Avenue, were identified at the Geary Street and Clement Street entrances. These entry markers are located within the sidewalks adjacent to but outside the C-APE.

Clement Street within the C-APE, from 36th to 39th Avenues, is a two-lane neighborhood collector street, approximately 50 feet wide from curb to curb. Within the C-APE, the roadway surface is modern paved asphalt with a combination of concrete and steel armored curbs, with some newer replacement concrete

curbs and concrete wheelchair ramps at most intersections. The residences facing the south side of Clement Street, immediately adjacent to but outside of the C-APE, were observed to be primarily two- to three-story single-family detached houses constructed between 1910s and 1920s, with a handful of smaller row houses that appear to have been built in the 1920s and 1930s. Lincoln Park is located on the north side of Clement Street from 33rd to 39th Avenues, outside of but adjacent to the C-APE. The pump station at Lincoln Park, facing Clement Street opposite 39th Avenue, was observed to be a modern, utilitarian structure composed of concrete block walls and a hip-and-gable roof clad in asphalt shingles, built around 1970.

Overall, the reconnaissance-level survey confirmed the roadway dimensions and alignments as originally laid out in the late 19th and early 20th centuries, but noted that the roadway materials have been altered over the years through more recent repaving and utilities replacement programs, and with newer concrete wheelchair ramps at nearly all intersections. Some original (1900s-era) granite curbs and concrete and steel armored curbs (1920s–1940s) remain in the C-APE of these roadways, but these older materials are commonly found along many of San Francisco’s roadways and would not be considered historical resources in themselves. ESA staff did not identify any historical resources in the Richmond District portion of the C-APE.

Golden Gate Park

The reconnaissance-level field survey confirmed the presence of all previously recorded resources in the C-APE, including those within the Golden Gate Park National Register Historic District, such as the various segments of the park’s primary circulation system in the C-APE (John F. Kennedy Drive, Middle West Drive, Overlook Drive, Crossover Drive, and Transverse Drive), as well as the Panhandle. The C-APE includes the Central Pumping Station and composting area, as well as the Central Reservoir. Each of these is described below.

Golden Gate Park Roadways

Within Golden Gate Park, the C-APE follows a number of internal roadways from the Richmond District on the north side of the park (beginning at Fulton Street at 25th Avenue) to the Sunset District on the south side of the park at (ending at Lincoln Way at 34th Avenue). From north to south, these include an approximately 650-foot segment of Crossover Drive between Fulton Street and Transverse Drive, an approximately 1,000-foot segment of Transverse Drive to John F. Kennedy Drive, an approximately 500-foot segment of John F. Kennedy Drive, an approximately 1,700-foot segment of Overlook Drive between Transverse Drive and Middle West Drive adjacent to the Central Reservoir and Pumping Station/composting area (alternately, the pipeline would cross a landscaped lawn between Transverse Drive and John F. Kennedy Drive), and an approximately 0.5-mile segment of Middle West Drive to an area parallel with 34th Avenue. The C-APE then follows a paved path through the park, approximately 500 feet long, between Middle Drive West and Lincoln Way at 34th Avenue. Each of these roads and paths are described below.

Crossover Drive within the C-APE, from Fulton Street to Transverse Drive, is a curvilinear four-lane arterial street, approximately 60 feet wide from curb to curb, that curves through the park near its northern boundary. Within the C-APE, the roadway surface is modern paved asphalt with a paved median and concrete curbs and gutters. No historic roadway materials were evident. Areas adjacent to but outside the C-APE include densely landscaped portions of Golden Gate Park.

Transverse Drive within the C-APE runs in a general north-south direction from Crossover Drive to John F. Kennedy Drive. Transverse Drive is a curvilinear two-lane vehicular roadway with a continuous width of about 25 feet and modern asphalt surfaces and curbs. No roadway materials from the original 1909 road were evident. Just outside of the C-APE and along the roadway edges are concrete lamp standards, which occur approximately every 100 feet along both sides of the roadway. These concrete lamp posts appear to date from about 1925, although many also appear to be newer replacement replicas. Landscaped portions of Golden Gate Park parallel this roadway. Newer concrete wheelchair ramps are located at the intersection with John F. Kennedy Drive, described below.

John F. Kennedy Drive within the C-APE, from Crossover Drive to John F. Kennedy Drive, is a curvilinear, two-lane street with a continuous width of approximately 50 feet wide from curb to curb, and parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with asphalt curbs. No roadway materials from the original 1870s road were evident. Just outside of the C-APE are concrete lamp posts, which occur approximately every 100 to 150 feet along the north side of the roadway. Areas adjacent to but outside the C-APE include densely landscaped portions of Golden Gate Park. Newer concrete wheelchair ramps are located at the intersection with Transverse Drive.

Overlook Drive within the C-APE, which runs generally east-west, connects Transverse Drive with Middle West Drive. Overlook Drive is a two-lane service road with modern asphalt surfaces. Roadway edges are informal, and are lined with downed tree trunks in some areas. This road runs for about 1,700 feet, although its westernmost segment of about 500 feet is only accessible to pedestrians; vehicular access is controlled by wood bollards.

Within the C-APE and to the north of Overlook Drive is the **Central Reservoir**, which consists of an underground water storage reservoir, a pump station, and a composting area. The pump station is a reinforced concrete, single-story building with a flat roof and minimal fenestration. The station is partially enclosed by a concrete wall. The San Francisco Recreation and Park Department built the wall in 2002, with funds from the 1992 Golden Gate Park Infrastructure Bond.⁸⁵ The area is accessed from Overlook Drive near Transverse Drive in approximately the center of the park. The adjacent composting area, which was established in the 1980s, provides space for the Recreation and Park Department's wood and landscape waste recovery and composting operation. The waste is diverted from landfills by recycling the material for landscape use throughout the city's parks.⁸⁶ The composting area currently contains compost piles, tree limbs, and wood chipping equipment. The composting area and reservoir pump station is encircled by chain-link fencing and mature eucalyptus trees. The reservoir itself was not accessible to the surveyor. The park's Central Reservoir, pump station, and composting area are noncontributors to the Golden Gate Park National Register Historic District.⁸⁷ Given its recent date of construction and utilitarian function and style, the Central Reservoir pump station was not evaluated for listing in the National Register or California Register. No historic-period materials were observed in these locations during the survey.

Middle West Drive within the C-APE, from Overlook Drive to an area parallel to 34th Avenue, is a curvilinear, two-lane road about 40 feet wide with modern asphalt surfaces. Roadway edges are informal,

⁸⁵ NPS, National Register of Historic Places Registration Form, Golden Gate Park, October 2004.

⁸⁶ Ibid.

⁸⁷ Ibid.

and are lined with downed tree trunks in some areas. No original roadway materials dating from the 1890s were evident. Just outside of the C-APE and along the roadway edges are concrete lamp posts, which occur approximately every 100 to 150 feet along the north side of the roadway. The concrete lamp standards appear to date from about 1925, although many also appear to be newer replacement replicas. A gravel path parallels portions of the southern side of Middle West Drive, although it is not continuous. Landscaped portions of Golden Gate Park parallel this roadway, including dense stands of Monterey pines. Also located near Middle West Drive, outside of the C-APE, are two contributors to the Golden Gate Park National Register Historic District, including the 1920s Polo Fields and associated restroom (about 100 feet north of Middle Drive West), and Metson Lake, a small lily pond about 25 feet south from Middle Drive West.

The C-APE follows a paved pedestrian path, approximately 500 feet long, between Middle Drive West and Lincoln Way at 34th Avenue. This path is about 6 feet wide and is paved with asphalt; edges are informal. Areas outside of the C-APE are landscaped and wooded. No historic materials were observed in this area.

Panhandle is the easternmost extension of the park, one block wide and eight blocks long—from Stanyan Street on the west, Baker Street on the east, Fell Street on the north, and Oak Street on the south. The Panhandle is a contributor to the Golden Gate Park National Register Historic District. The portion of the C-APE within the Panhandle extends on the west from a segment of John F. Kennedy Drive (within the Park) that is about 400 feet long, runs along Oak Street just south of the Panhandle to Central Avenue on the east. Each of these roadways and paths are described below. The C-APE includes three existing booster pumps located within the Panhandle. The pumps are contained within modern, utilitarian, steel enclosures, each about 2 feet tall and 6 feet wide, located between the pedestrian path and the curb on the south edge of the Panhandle, adjacent to Oak Street.

The segment of John F. Kennedy Drive within Golden Gate Park was observed to be a two-way, multi-lane arterial about 60 feet wide, consisting of all modern asphalt surfaces and concrete curbs and gutters. The C-APE within Oak Street, from Stanyan Street to Central Avenue, was observed to be a one-way (eastbound), four-lane arterial about 50 feet wide, with concrete curbs and gutters and asphalt pavement. Parallel parking exists on both sides of the street. Within the Panhandle, curvilinear pedestrian path with a paved surface and informal edges about 8 feet wide were observed. This path runs generally east-west down the southern route of the Panhandle, parallel to Oak Street. A similar pedestrian path, outside of the C-APE, also runs along the northern route of the Panhandle parallel to Fell Street. Various paved cross paths connect these longer paths at irregular intervals. None of the pump stations in the Panhandle were observable, and are presumed to be subterranean. Although the C-APE within the Panhandle is surrounded by mature trees and other vegetation, some of which may date to the park's original landscape plantings, no historical paths or roadway materials dating from the 1870s were observed in the C-APE. As described above, modern concrete curbs and gutters and asphalt pavement were observed along Oak Street, which runs along the southern end of the Panhandle portion of the C-APE.

In summary, the reconnaissance survey found that the road segments that contribute to the Golden Gate Park National Register Historic District in the C-APE (John F. Kennedy Drive, Middle West Drive, Overlook Drive, Crossover Drive, Transverse Drive, and the Panhandle) generally follow their original alignments as shown on early park maps. As noted above, however, the roadway materials are thoroughly modern and no historic-period roadway materials were observed within the C-APE. While

the roadway materials have been altered and would not be considered historical resources, their alignments are considered historical resources because they are crucial portions of the park's original circulation system and are character-defining features of the Golden Gate Park National Register Historic District.

Sunset District Roadways

The C-APE in the Sunset District includes a four-block segment of 34th Avenue from Lincoln Way to Lawton Street, a two-block segment of Lawton Street from 34th to 36th Avenues, a 10-block segment of 36th Avenue from Lawton to Vicente Streets, a one-block long segment of Vicente Street from 36th to 37th Street (crossing Sunset Boulevard), and a two-block segment of 37th Avenue from Vicente Street to Sloat Boulevard. All of these street segments were the subject of a reconnaissance-level survey, and are described briefly below.

34th Avenue within the C-APE, from Lincoln Way to Lawton Street, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with a mixture of all-concrete and steel armored curbs, with newer concrete wheelchair ramps at all intersections. The residences facing 34th Avenue, immediately adjacent to but outside of the C-APE, were observed to be nearly uniform two-story (one story over a garage) single-family row houses constructed between the 1920s and 1940s. The architectural styles observed are the Revival styles popular during this period (predominantly Spanish Revival).

Similar to 34th Avenue, **Lawton Street** within the C-APE, from 34th to 36th Avenues, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with concrete curbs, with newer concrete wheelchair ramps at all intersections. The residences facing Lawton Street, located immediately adjacent to but outside of the C-APE, were observed to be nearly uniform two-story (one story over a garage) single-family row houses constructed between the 1920s and 1940s. The architectural styles observed are the Revival styles popular during this period (predominantly Spanish Revival).

36th Avenue within the C-APE, from Lawton to Vicente Streets, has many of the same characteristics as 34th Avenue, described above. Only the east side of the road is developed; the west side is composed of the wide landscaped parkway that runs parallel to the east side of Sunset Boulevard; this parkway slopes downward from 36th Avenue in many places, as Sunset Boulevard is partially depressed for much of its length. A two-lane neighborhood collector street, 36th Avenue is approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with a mixture of all-concrete and steel armored curbs, with newer concrete wheelchair ramps at all intersections. The residences facing the eastern side of 36th Avenue, immediately adjacent to but outside of the C-APE, were observed to be nearly uniform two-story (one story over a garage) single-family row houses constructed between the 1920s and 1940s, with some exceptions. The architectural styles observed are primarily the Revival styles popular during this period (predominantly Spanish Revival). A small cluster of Art Moderne-style single-family homes can be found at 36th Avenue near Noriega and Ortega Streets. The three blocks between Noriega and Quintara Streets contain a number of two-story row houses constructed in the late 1950s, and the block between Ortega and Pacheco Streets contain similar homes constructed in the 1960s, all of which are Modern in style.

Vicente Street within the C-APE, from 36th to 37th Street, is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with modern paved asphalt, concrete curbs, striped crosswalks, and newer concrete wheelchair ramps at all intersections. In this location, Lawton Street crosses Sunset Boulevard at a signal-controlled intersection. Sunset Boulevard is a six-lane arterial with a wide planted median, parallel parkways, and an approximately 200-foot right-of-way. No residences face this section of Vicente Street. Areas immediately adjacent to but outside the C-APE include the planted median and parkways that parallel Sunset Boulevard, as well as the width of this roadway itself.

37th Avenue within the C-APE, from Vicente Street to Sloat Boulevard, has many of the same characteristics as 34th and 36th Avenues, described above. It is a two-lane neighborhood collector street, approximately 40 feet wide from curb to curb, with parallel parking. Within the C-APE, the roadway surface is modern paved asphalt with a mixture of all-concrete and steel armored curbs, with newer concrete wheelchair ramps at all intersections. The residences facing the western side of 37th Avenue, immediately adjacent to but outside of the C-APE, were observed to be nearly uniform two-story (one story over a garage) single-family row houses constructed between the 1920s and 1940s. The architectural styles observed are the Revival styles popular during this period (predominantly Spanish Revival). Only the west side of the road is developed; the east side is composed of the wide landscaped parkway that runs parallel to the west side of Sunset Boulevard. This parkway slopes downward from 37th Avenue in many places, as Sunset Boulevard is partially depressed for much of its length.

Overall, the reconnaissance-level survey of this neighborhood confirmed the roadway dimensions and alignments as originally laid out in the early 20th century, but noted that the roadway materials have been altered over the years through more recent repaving and utilities replacement programs, and newer concrete wheelchair ramps at nearly all intersections. Some original concrete and steel armored curbs (1920s–1940s) remain in the C-APE of these roadways, but these older materials are commonly found along many of San Francisco’s roadways and would not be considered historical resources in themselves. ESA staff did not identify and historical resources in the Sunset District portion of the C-APE.

Sloat Boulevard, Skyline Boulevard, and Oceanside WPCP

The C-APE in the Sunset District and Lake Merced neighborhoods includes an approximately 0.6-mile segment of Sloat Boulevard from 37th Avenue on the east to the main parking lot at Zoo on the west (Zoo Road), an approximately 0.6-mile segment of Skyline Boulevard from Sloat Boulevard on the north to the entrance of the Oceanside WPCP on the south along the northeastern edge of Lake Merced, and an approximately 0.10-mile segment of Herbst Road from Sloat Boulevard on the south to the Zoo on the north (including a 0.1-mile segment of a Zoo internal access road). The accessible portions of these street segments were the subject of a reconnaissance-level survey, and are described briefly below.

Sloat Boulevard in the C-APE is a six-lane arterial roadway, approximately 110 feet wide and about 0.6 mile long. The road has a wide (approximately 20-foot) median that originally had street car rails running down the middle; this median has been paved and is used for diagonally oriented commercial parking on the north side of Sloat Boulevard. Much of the right shoulder has been widened to accommodate diagonally oriented parking for the Zoo, which is located immediately south of this roadway. Roadway materials consist of asphalt paving and concrete curbs, gutters, and sidewalks. Within the C-APE is one recorded historical resource: the Doggie Diner sign (San Francisco Landmark #254), which has been relocated to the median of Sloat Boulevard at 45th Avenue. The plaque beneath the sign notes:

This sign stood outside the last operating Doggie Diner Restaurant (later “Carousel”) on the N.E. corner of 46th Ave. and Sloat Blvd. Designed in 1966 by graphic artist Harold Bachman (1921–2005) for the popular unionized Bay Area drive-in chain, the Doggie’s whimsical style (shades of swing and early auto age cartoons) has delighted generations of visitors to Ocean Beach. A massive grassroots preservation effort, chronicled nationally in the “Zippy the Pinhead” comic strip, led to its acquisition by the City of San Francisco (December 2000). Toppled by wind on April 1, 2003, it was restored by the Dept. of Public Works, returned to its post by independence day, and relocated to this median in January, 2005. Long Live the Doggie!

Structures located adjacent to but outside the C-APE include about six blocks of nearly identical two-story single-family row houses built in the 1940s, in Revival styles similar to those found throughout the Sunset District. These homes are located on the north side of Sloat Avenue; the south side is undeveloped open space associated with the Zoo, and is heavily landscaped with rows of mature Monterey pines. A stone wall also separates the Zoo from Sloat Boulevard on the south side of this roadway. Other structures located adjacent to but outside the C-APE in this area include commercial and multi-family uses on the north side of Sloat Avenue, opposite the Zoo entrance, which were built in the 1950s–1970s.

At the western end of Sloat Boulevard, about one block from Ocean Beach, the C-APE in this area terminates approximately 100 feet into the center of the Zoo parking lot at Zoo Road. Materials in the C-APE consist of modern asphalt paving and concrete curbs, gutters, and sidewalks. The driveway and parking lot appear to have been recently repaved. This area was once part of the Fleishhaker Pool, which was constructed in the 1920s, but was later filled in and paved over to expand the Zoo parking lot by the 1970s. As described above, the pool house existed until 2012, when it was partially destroyed by fire and torn down. ESA staff did not identify any historic resources within the Sloat Boulevard/Zoo Road C-APE.

Skyline Boulevard/Oceanside WPCP entrance road within the C-APE, Sloat Boulevard to the entrance to the Oceanside WPCP, is a four-lane arterial street, approximately 100 feet wide from curb to curb, with a wide paved median. Within the C-APE, the roadway surface is modern paved asphalt with concrete curbs and gutters, and wide breakdown lanes on either side. The C-APE in this area runs about 0.6 mile, from Sloat Boulevard on the north, to the entry to the Oceanside WPCP on the south. Adjacent to but outside the C-APE is undeveloped open space landscaped with mature eucalyptus trees and Monterey pines, which line Lake Merced located to the southeast. A vegetated slope, as well as the concrete entry tunnel to the Oceanside WPCP, are located to the west of the Skyline Boulevard C-APE. Although neither the interior of the Oceanside WPCP property nor the adjacent CA ARNG Readiness Center was accessible to the surveyor, satellite aerial photos of these locations indicate that they contain modern paved roadways/parking lots and industrial/institutional buildings. (This was confirmed by JRP’s survey of the property.) The construction date of the Oceanside WPCP (1994) also indicates it is a modern facility. The proposed staging area on Harding Drive at Lake Merced, across Skyline Boulevard from the Oceanside WPCP, is a paved parking lot with no buildings or structures.

Herbst Road within the C-APE, from Sloat Boulevard to the Zoo, is a two-lane connector street, approximately 60 feet wide from curb to curb, with perpendicular parking on either side. Within the C-APE, the roadway surface is modern paved asphalt with concrete curbs and gutters. The C-APE in this area runs about 0.1 mile, from Sloat Boulevard on the east, to the entry of the Zoo access road on the west. Adjacent to but outside the C-APE is undeveloped open space landscaped with mature eucalyptus trees and Monterey pines. Herbst Road continues northwest to become an internal access road within the San Francisco Zoo.

This road, which runs for another 0.1 mile into the interior of the Zoo (Zoo Road), is controlled by a security gate, and was not entirely accessible to the surveyor. From outward appearances, this portion of the C-APE is a two-lane street, approximately 50 feet wide from edge to edge, with no visible formal curbs or gutters. Areas adjacent to but outside the C-APE were observed to be landscaped with rows of mature Monterey pines parallel to both sides of the roadway. This portion of the C-APE terminates at a paved parking area within a service/support portion of the Zoo. Located within the paved parking area is a Zoo maintenance building that, according to a review of historic aerial photographs, is a modern facility constructed in about 2000. The 1930s-era buildings and features of the Zoo are separated from this area by approximately 750 feet, including the wide swath of Monterey pines that line both sides of this road.

Overall, the reconnaissance-level survey confirmed the general dimensions and alignments of Skyline and Sloat Boulevards, as well as Herbst Road/Zoo Road, as originally laid out in the 1920s, but noted that the roadway materials have been altered over the years through more recent repaving projects and replacement curbs and gutters in many locations. Some original concrete curbs remain in the C-APE of these roadways, but these older materials are commonly found along many of San Francisco's roadways and would not be considered historical resources in themselves. Other than the Doggie Diner sign within the median of Sloat Boulevard (San Francisco Landmark #254), ESA staff did not identify any historical resources in this portion of the C-APE.

Summary of Survey and Evaluation Findings

The results of the field survey indicate that all previously recorded historical resources in the Golden Gate Park portion of the C-APE would continue to be considered historical resources, including the alignments of Transverse, Crossover, and Overlook Drives, and the overall shape and form of the Panhandle. Other than the Doggie Diner sign, San Francisco landmark #254 at Sloat Boulevard and 45th Avenue, ESA staff did not identify any historical resources in this portion of the C-APE during the field survey.

Historical Society Contacts

The San Francisco Architectural Heritage was contacted by letter on August 5, 2014 to solicit input on the project. Other organizations and interested parties were also contacted, especially those with concerns about the Golden Gate Park National Register Historic District. A total of 51 letters were transmitted; however, no responses from these organizations or interested parties have yet been received. Copies of these letters are available in Appendix B of the historic resources evaluation.

5.2.2 Regulatory Framework

State Regulations

The State of California implements the National Historic Preservation Act (NHPA) of 1966, as amended (16 United States Code 470f), through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation, as an office of the California DPR, implements the policies of the NHPA on a statewide level. The Office of Historic Preservation also maintains the California Historic Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the state's jurisdictions.

California Public Resources Code and Health and Safety Code

Several sections of the PRC protect cultural resources. Under Section 5097.5, no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archeological or vertebrate paleontological site (including fossilized footprints), inscriptions made by human agency, rock art, or any other archeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency that has jurisdiction over the lands. Violation of this section is a misdemeanor. Section 5097.98 states that if Native American remains are identified within a project area, the lead agency must work with the appropriate Native Americans as identified by the NAHC and develop a plan for the treatment or disposition of, with appropriate dignity, the human remains and any items associated with Native American burials. These procedures are also addressed in Section 15046.5 of the CEQA Guidelines. California Health and Safety Code Section 7050.5 prohibits disinterring, disturbing, or removing human remains from a location other than a dedicated cemetery. Section 30244 of the PRC requires reasonable mitigation for impacts on paleontological and archeological resources that occur as a result of development on public lands.

PRC Section 5024.1[a] states that the California Register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” PRC Section 5024.1[b]) states that the criteria for eligibility to the California Register are based on National Register criteria, and that certain resources are determined by the statute to be automatically included in the California Register, including California properties formally eligible for or listed in the National Register.

Title 14, Section 4307 of the California Code of Regulations (CCR) also prohibits any person from removing, inuring, defacing, or destroying any object of paleontological, archeological, or historical interest or value.

California Environmental Quality Act

CEQA, as codified in PRC Section 21000, et seq., is the principal statute governing the environmental review of projects in the state. The CEQA Guidelines define a historical resource as: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

CEQA Section 15064.5(3) states that any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a lead agency considers a resource to be “historically significant” if the resource meets the criteria for listing in the California Register (PRC Section 5024.1; 14 CCR Section 4852[b]), including the following:

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

For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. A resource that does not retain sufficient integrity to meet the National Register criteria may still be eligible for listing in the California Register.

CEQA requires lead agencies to determine if a proposed project would have a significant effect on important archeological resources, either historical resources or unique archeological resources. If a lead agency determines that an archeological site is a historical resource, the provisions of PRC Section 21084.1 would apply and CEQA Guidelines Sections 15064.5(c) and 15126.4 and the limits in PRC Section 21083.2 would not apply. If an archeological site does not meet the CEQA Guidelines criteria for a historical resource, the site may meet the threshold of PRC Section 21083.2 regarding unique archeological resources. A unique archeological resource is "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person [PRC Section 21083.2 (g)]."

If a resource is neither a unique archeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]).

Local Regulations

San Francisco Historic Preservation Commission and Planning Code Articles 10 and 11

Created in 2008, the Historic Preservation Commission is a seven-member body that makes recommendations to the Board of Supervisors on the designation of landmark buildings, historic districts, and significant buildings. The Historic Preservation Commission replaces and retains most of the responsibilities of the former Landmarks Preservation Advisory Board (Landmarks Board). The Landmarks Board was a nine-member body, appointed by the mayor, which served as an advisory board to the Planning Commission and the Planning Department. The Landmarks Board was established in 1967 with the adoption of Article 10 of the Planning Code. The work of the Landmarks Board, the

Planning Department, and the Planning Commission has resulted in an increase of public awareness about the need to protect CCSF's architectural, historical, and cultural heritage.

The Historic Preservation Commission reviews and approves Certificates of Appropriateness for building permit applications that involve construction, alteration, or demolition of landmark sites and resources located within historic districts. The Historic Preservation Commission may also review and comment on projects affecting historical resources that are subject to environmental review under the CEQA.

Article 10 of the Planning Code describes procedures regarding the preservation of sites and areas of special character or special historic, architectural, or aesthetic interest or value, such as officially designated city landmarks and buildings included within locally designated historic districts. Article 11 of the Planning Code designated six downtown conservation districts.

5.2.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, the project would have a significant effect on cultural and paleontological resources if it were to:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code;
- Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

Approach to Analysis

The analysis considers direct and indirect impacts on known cultural and paleontological resources as well as inadvertent discoveries within the C-APE. Potential impacts on architectural resources are assessed by determining whether project activities would affect any such resources that have been identified as historical resources for the purposes of CEQA. While most historic buildings and many historic-period archaeological resources are generally significant because of their association with important events, people, or styles (National Register Criteria A, B, and C / California Register Criteria 1, 2, and 3), the significance of most prehistoric and historic-period archaeological resources is usually assessed under National Register Criterion D / California Register Criterion 4. This criterion stresses the potential for discovering important historical information within the site rather than the resource's significance as a surviving example of a type of construction or its association with an important person or event.

Once a resource has been identified as significant, it must be determined whether the project would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines 15064.5[b]). A substantial adverse change in the significance of a historical resource or unique archaeological resource means "physical demolition, destruction, relocation, or alteration of the resource or its immediate

surroundings such that the significance of the historical resource would be materially impaired” (CEQA Guidelines Section 15064.5[b][1]). The significance of a historical resource is materially impaired through the demolition or alteration of the resource’s physical characteristics that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register (CEQA Guidelines Section 15064.5[b][2]).

The impact analysis for paleontological resources is based on the paleontological potential of the rock units to be disturbed by project-related excavations.

Impact Summary

Table 5.2-3 summarizes the project’s cultural and paleontological impacts and significance determinations.

**TABLE 5.2-3
SUMMARY OF IMPACTS – CULTURAL AND PALEONTOLOGICAL RESOURCES**

Impact	Significance Determination
Impact CP-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code.	LS
Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5.	LSM
Impact CP-3: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature.	LSM
Impact CP-4: The proposed project could disturb human remains, including those interred outside of formal cemeteries.	LSM
Impact CP-5: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains, including those interred outside of formal cemeteries	LSM
Impact C-CP: The proposed project could result in cumulatively considerable impacts related to historical, archeological, or paleontological resources or human remains.	LSM

NOTES:

- LS = Less-than-Significant impact, no mitigation required
- LSM = Less-than-Significant impact, mitigation required

Impact Analysis

Impact CP-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code. (Less than Significant)

Recycled Water Treatment Plant Facilities at the Oceanside WPCP

The proposed recycled water treatment plant would be constructed at the existing Oceanside WPCP complex, and partially within the CA ARNG property. A two-story treatment building (approximately 30,000 square feet total area, and 40 to 45 feet high) would be constructed. Additional project components

include the reconfiguring of the existing chemical building (Building 510), configuring of the existing chlorine contact channel, and construction of two underground storage reservoirs.

As the Oceanside WPCP was completed in 1994, no historic-period materials would be present within this portion of the C-APE; thus, the proposed repurposing or new building construction at the Oceanside WPCP is not expected to have any direct or indirect effects on historical resources. Similar to the rest of the Oceanside WPCP, the new facility would not be visible from any public roadways such as Skyline Boulevard, as the project site is surrounded by wooded slopes and sand dunes.

The introduction of the new two-story treatment building has the potential to introduce a new visual element to the setting of the CA ARNG property. JRP Historical Consulting, LLP recommended that this property, including the Readiness Center, was ineligible for listing in the National Register and California Register, and is not considered a historical resource as defined by CEQA Section 15064.5.⁸⁸ Therefore, no direct or indirect adverse effects of these resources are anticipated by construction of the new treatment building.

Recycled Water Distribution System: Distribution Pumps

Three distribution pumps would be installed at the recycled water treatment plant to convey recycled water from the facility to the Central Reservoir in Golden Gate Park. At the Oceanside WPCP, a new pump would be installed in an area where no historical resources were identified, and it would not be visible or accessible to the general public. Therefore, construction of this pump would have no direct or indirect effects to historical resources.

At the Central Reservoir, the existing pump station would pump recycled water into the Golden Gate Park irrigation system. A new 19-foot tall aboveground pump station would be constructed adjacent to the existing facility and would house four distribution pumps, as well as two hydropneumatic tanks to pump recycled water from storage to serve Lincoln Park and the Presidio. As stated above, the Central Reservoir site is a noncontributor to the Golden Gate Park National Register Historic District. Construction of this distribution pump would have no direct effect on historical resources, as none are located in or near the project vicinity. This portion of the project would also have no indirect impacts on historic resources, as the aboveground pump station would be similar to the height of the existing pump station, constructed in an area that is inaccessible to the general public and at a site that is mostly surrounded by dense mature vegetation. As a result, the aboveground pump station would not be visible or would be substantially blocked from view from most nearby roads or trails, including the District's roads that contribute to the Golden Gate Park National Register Historic District, such as Overlook Drive, Transverse Drive, and John F. Kennedy Drive. Thus the facilities at the Central Reservoir would not have a significant impact on historic resources.

Additionally, existing booster pump stations in the Panhandle would be upgraded. Although the Panhandle is one of the earliest portions of Golden Gate Park to be constructed, and is a contributor to the Golden Gate Park National Register Historic District, no historic-period materials dating to the 1870s

⁸⁸ JRP Historical Consulting, LLC, San Francisco Readiness Center, Department of Parks and Recreation (DPR) Primary Record Form, July 9, 2013.

were identified during the survey of Panhandle portion of the C-APE. No alterations to the Panhandle's original alignment and layout would occur as a result of the upgraded booster pumps. Therefore, the upgraded booster pumps are not expected to have any direct or indirect effects on the historic nature of the Panhandle.

Recycled Water Distribution System: Distribution Pipelines

Over 8 miles of 8- to 20-inch-diameter distribution pipelines to and through Golden Gate Park, and the Richmond and Sunset Districts to the Zoo and the Oceanside WPCP, would be constructed by using open-trenching techniques within the existing public rights-of-way, backfilling the soil, and reestablishing the roadway/path surface to pre-construction conditions. The distribution pipelines would be located entirely within the existing rights-of-way. Construction of the pipelines would not alter the alignment of the historical circulation system of Golden Gate Park, including John F. Kennedy Drive, Middle West Drive, Overlook Drive, Crossover Drive, and Transverse Drive, all of which are contributing elements of the Golden Gate Park National Register Historic District. The pipeline that would be constructed along Oak Street would be immediately adjacent to but outside the Panhandle and would have no effect on the overall form and shape of the Panhandle, which is also a contributing feature of the Golden Gate Park National Register Historic District. Similarly, the survey within the Richmond and Sunset District and Golden Gate Park portions of the C-APE identified no historically significant roadway materials that the proposed pipeline distribution system would affect, either directly or indirectly. Thus, the recycled water distribution system would have no direct or indirect effect on historical resources.

The only recorded historical resource within the project C-APE is the Doggie Diner sign, San Francisco Landmark #254, which is located in the median of Sloat Boulevard at 45th Avenue. Given the approximately 110-foot right-of-way in this location, as well as the approximately 25-foot-wide median, if the Zoo were to be added as a recycled water customer in the future, the required distribution pipeline, even if routed down Sloat Boulevard adjacent to the Zoo, would most likely be placed near the south side of the roadway and in any event could avoid any disturbance of the median. Therefore, impacts on the Doggie Diner sign as a result of project construction are anticipated to be less than significant.

Recycled Water Distribution System: Distribution Storage

In addition to the proposed recycled water storage at the recycled water treatment facility, the project includes use and possible upgrade to the pumps within the existing pump station at the Golden Gate Park Central Reservoir, and the addition of a 840,000-gallon buried storage reservoir adjacent to the existing reservoir. The Golden Gate Park Central Reservoir site is a noncontributor to the Golden Gate Park National Register Historic District; thus, the construction of a new subterranean reservoir and any upgrades to the pumps at the existing pump station facility would have no direct or indirect effect on historical resources.

Recycled Water Distribution System: Reverse Osmosis Concentrate (Brine) Disposal Pipeline

A dedicated brine disposal pipeline (approximately 8 to 10 inches in diameter) would be constructed along 2,000 linear feet routed inside the Oceanside WPCP from the recycled water treatment plant to the entrance to the outfall (within the plant). As stated above, no historic-period materials are present within the Oceanside WPCP; thus, the installation of the new brine disposal pipeline at the Oceanside WPCP is not expected to have any direct or indirect effects on historical resources.

Impact Summary

As described above, construction of the proposed Oceanside WPCP facilities and the new recycled water distribution pipeline would not affect any historical resources, including those within the Golden Gate Park National Historic District. Thus, the impact related to an adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5 would be less than significant, and no mitigation would be required.

Mitigation: None required.

Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5(f). (Less than Significant with Mitigation)

Based on the results of the background research, geological assessment, and survey results, throughout the C-APE, there is generally a low potential for uncovering archaeological resources during project construction.⁸⁹ However, previously unrecorded and buried (or otherwise obscured) archaeological deposits could be discovered during project construction. Excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts on unknown archaeological resources, which would be a significant impact. Should the Zoo be added as a recycled water customer in the future, additional CEQA review could be required; however, construction of required distribution facilities could similarly cause impacts on unknown archaeological resources. However, this impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure M-CP-2, Accidental Discovery of Archeological Resources**, which requires avoidance measures or the appropriate treatment of cultural resources if accidentally discovered during project implementation.

Mitigation Measures

Mitigation Measure M-CP-2: Accidental Discovery of Archeological Resources. The following measures shall be implemented should construction activities result in the accidental discovery of an archeological resource:

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines Sections 15064.5(a) and (c). The project sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

⁸⁹ Ibid.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of a qualified archeological consultant, based on standards developed by the Planning Department archeologist. The archeological consultant shall evaluate the discovered material and advise the ERO as to whether the discovery historical or unique retains sufficient integrity and is of potential scientific/historical/cultural significance. If a significant archeological resource is present, the archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor including avoidance measures or other appropriate mitigation.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing/data recovery program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the EP division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological testing/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archeological Site Survey NWIC shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound copy, one unbound copy and one unlocked, searchable copy on compact disk (CD) three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Impact Significance After Mitigation: Compliance with Mitigation Measure M-CP-2 would reduce impacts associated with accidental discovery of archeological resources to a less-than-significant level.

Impact CP-3: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. Fossil discoveries provide a historical record of past plant and animal life and can assist geologists in dating rock formations. In addition, fossil discoveries can expand the understanding of time periods and geographic range of existing and extinct flora or fauna.

Unconsolidated Holocene-age dune sands underlie the entire project area (including the Central Reservoir site and areas associated with future Zoo distribution facilities, should the Zoo become a future customer), except for the recycled water treatment plant site. There are no recorded fossil locations within the dune sands that underlie the project area and, geologically speaking, dune sands are very young deposits that are unlikely to contain remains old enough to be considered fossilized. For these reasons, dune sand is considered to be of low paleontological productivity, and therefore of low scientific importance.

At the recycled water treatment plant site, soil would be removed to depths of approximately 23 feet for construction of the storage reservoir beneath the treatment plant. Some of the excavated soil would be artificial fill, which is present to depths of about 5 feet. This fill soil would not contain paleontological resources because it was not naturally deposited. The excavation would extend approximately 23 feet into the underlying Colma Formation. Most fossils in the Peninsula and San Francisco areas are generally found along the Pacific Coast in marine units, such as the Purisima Formation, Monterey Formation, Butano Formation, Colma Formation, and Merced Formation, and in locations within the outcropping marine units in the Santa Cruz Mountains. Fossils found along the coast include vertebrates (e.g., extinct camels, horses, and sea mammals) and invertebrates (e.g., clams and corals). While no fossil localities have been identified in the immediate project vicinity in the Colma Formation, this geologic unit has a high paleontological sensitivity. A search of the fossil collections database at the University of California Museum of Paleontology did not reveal any vertebrate fossil localities within the Colma Formation in San Francisco.⁹⁰ Nevertheless, vertebrate fossils, including parts of mammoths and bison, have been found in the Colma Formation in San Francisco, near the base of Telegraph Hill.⁹¹ In addition, a mammoth tooth was discovered in the Colma Formation during excavation for the Transbay Transit Center in downtown San Francisco in 2012.⁹²

Table 5.2-4 lists each of the geologic units and each unit's ranking for the potential presence of paleontological resources. Only the Colma Formation has the potential for significant paleontological resources.

⁹⁰ University of California Museum of Paleontology, Collections Database <http://www.ucmp.berkeley.edu/science/collections.php>, February 20, 2015.

⁹¹ Rodda, Peter U.; Baghai, Nina, "Late Pleistocene Vertebrates from Downtown San Francisco, California," *Journal of Paleontology*, Vol. 67, No. 6, November 1993, pp. 1058-1063. Available online at <http://www.jstor.org/discover/10.2307/1306122?uid=3739560&uid=2&uid=4&uid=3739256&sid=21104248753471>.

⁹² Transbay Transit Center, "Archaeology." Available online at <http://transbaycenter.org/project/archaeology>, Accessed on February 11, 2015.

**TABLE 5.2-4
SURFACE GEOLOGY AND PALEONTOLOGICAL RESOURCE POTENTIAL**

Geologic Unit & Map Abbreviation	Known Fossils	Age	PFYC Ranking	SVP Ranking
Artificial Fill (Qaf)	None	Quaternary (Holocene)	Class 1 (<i>very low potential</i>)	Low Potential
Dune Sand (Qd)	None	Quaternary (Holocene)	Class 2 (<i>low potential</i>)	Low Potential
Colma Formation (Qc)	Vertebrates	Pleistocene	Class 3a (<i>moderate potential</i>)	High Potential

SOURCES: Bonilla, M.G., *Preliminary Geologic Map of the San Francisco South 7.5' Quadrangle and Part of the Hunters Point 7.5' Quadrangle, San Francisco Bay Area, CA*, U.S. Geological Survey, Open File Report 98-354, 1998; Gilpin Geosciences, Inc., *RE: Engineering Geologic Evaluation Vista Grande Basin Alternatives, Thornton State Beach/Fort Funston, Daly City/San Francisco, California*, 2007; Society for Vertebrate Paleontology (SVP), *Standards and Guidelines*, News Bulletin Number 163, January 1995.

Consequently, given the sensitivity of the Colma Formation and the depth of excavation that could extend into the formation, the potential to encounter and adversely impact paleontological resources at the recycled water treatment plant site could result in a significant impact. This impact would be reduced to *less-than-significant* level with implementation of **Mitigation Measure M-CP-3, Accidental Discovery of Paleontological Resources**. This requires the contractor to stop all ground disturbance within 50 feet if a paleontological resource is encountered during excavation and to implement actions to investigate the discovery and recover the fossil remains by a qualified professional, as appropriate, before ground disturbing activities can resume.

Mitigation Measures

Mitigation Measure M-CP-3: Accidental Discovery of Paleontological Resources. The following measures shall be implemented should construction at the recycled water treatment plant site result in the accidental discovery of paleontological resources:

To reduce the potential for the proposed project to result in a significant impact on paleontological resources, the SFPUC shall arrange for a paleontological training by a qualified paleontologist regarding the potential for such resources to exist in the project site and how to identify such resources. The training could consist of a recorded presentation of the initial training that could be reused for new personnel. The training shall also include a review of penalties for looting and disturbance of these resources. An alert sheet shall be prepared by the qualified paleontologist and shall include the following:

1. A discussion of the potential to encounter paleontological resources.
2. Instructions for reporting observed looting of a paleontological resource; and instructions that if a paleontological deposit is encountered within a project area, all soil-disturbing activities in the vicinity of the deposit shall cease and the Environmental Review Officer (ERO) shall be notified immediately.
3. Who to contact in the event of an unanticipated discovery.

If potential fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified professional paleontologist can assess the nature and importance of the find. Based on the

scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with SVP 1995 guidelines and currently accepted scientific practice, and shall be subject to review and approval by the ERO or designee. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report for publication describing the finds. The SFPUC shall be responsible for ensuring that treatment is implemented and reported to the San Francisco Planning Department. If no report is required, the SFPUC shall nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.

Impact Significance After Mitigation: Compliance with Mitigation Measure M-CP-3 would reduce impacts associated with accidental discover of paleontological resources to a less-than-significant level.

Impact CP-4: The proposed project could accidentally disturb unknown human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)

Based on the background research, geological assessment, and survey results, throughout the C-APE, there is generally a low potential for project construction to uncover human remains, except for the project area adjacent to the Golden Gate Cemetery (see Impact 5).⁹³ Although no known human burials have been identified within the project C-APE, the possibility of encountering human remains cannot be entirely discounted. Earth-moving activities associated with project construction could result in direct impacts on previously undiscovered human remains. Therefore, the potential impact regarding disturbance to human remains could be significant. Should the Zoo be added as a recycled water customer in the future, construction of required distribution facilities could similarly cause impacts on unknown human remains. However, this impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure M-CP-4, Accidental Discovery of Human Remains**, which requires avoidance measures or the appropriate treatment of human remains if accidentally discovered during project implementation.

Mitigation Measures

Mitigation Measure M-CP-4: Accidental Discovery of Unknown Human Remains. The following measures shall be implemented should construction activities, all of which are outside a dedicated cemetery, result in the accidental discovery of previously unknown human remains and associated cultural materials:

The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activities shall comply with applicable state laws. This

⁹³ ESA, *SFPUC San Francisco Westside Recycled Water Project, Draft Historic Context and Archaeological Survey Report*. Prepared for San Francisco Planning Department Environmental Planning Division and San Francisco Public Utilities Commission, December 2014.

shall include immediate notification of the coroner of the county within which the project is located for (i) a determination that no investigation of the cause of death is required; and (ii) in the event of the coroner's determination that the human remains are Native American, notification of the California Native American Heritage Commission, which shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archaeological consultant, SFPUC, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 24 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the SFPUC shall follow Section 5097.98(b) of the PRC, which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

Impact Significance After Mitigation: Compliance with Mitigation Measure M-CP-4 would reduce impacts associated with accidental discovery of human remains to a less-than-significant level.

Impact CP-5: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains associated with the historic-period Golden Gate Cemetery. (Less than Significant with Mitigation)

Ground disturbing activities associated with construction of distribution pipelines along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park and a connection point to the Lincoln Park Pumping will include excavation to depths of approximately 6 feet. Although the C-APE does not include any portions of the historic-period Golden Gate Cemetery (now Lincoln Park), it is adjacent to the southern boundary of the cemetery, and burials have been located during construction in nearby areas that are outside the historically recorded boundaries of the cemetery. A large number of burials were excavated during renovation of the California Palace of the Legion of Honor in the 1990s. A sample of 90 individuals excavated during that project was analyzed by osteologists to study 19th century health and living conditions in San Francisco. This was an important study because many researchers have noted the small number of non-Native American, historic-period skeletal remains available for study in North America. The Legion of Honor collection represents one of the largest historic-period skeletal collections in the western United States, and has provided a wealth of information about the overall health of the 19th century inhabitants of San Francisco. If additional burials associated with the Golden Gate Cemetery were uncovered, they could provide important data for similar osteological studies.⁹⁴ While unlikely, there is a slight potential for the project to uncover human remains associated with the historic-period Golden Gate Cemetery within the C-APE along Clement Street, a significant impact. However, this impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure M-CP-5, Archeological Monitoring Program**, which requires the development of a monitoring program

⁹⁴ Buzon, Michele R.; Walker, Phillip L.; Verhagen, Francine Drayer; Kerr, Susan L., "Health and Disease in Nineteenth-Century San Francisco: Skeletal Evidence from a Forgotten Cemetery," *Historical Archaeology*, 39(2):1-15, 2005. Available online at <http://www.jstor.org/discover/10.2307/25617245?sid=21105323697401&uid=3739560&uid=2&uid=4&uid=3739256>.

to monitor for the presence of human remains associated with the historic-period Golden Gate Cemetery in the C-APE during construction. In the event human remains are found, the mitigation measure specifies the steps to take to comply with legal requirements and, if found to be a resource subject to CEQA, the mitigation actions required.

Mitigation Measures

Mitigation Measure M-CP-5: Archeological Monitoring Program. Based on the potential that human remains associated with the historic-period Golden Gate Cemetery may be present (buried) within the project area, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on the human remains if exposed during construction. The project sponsor shall retain the services of a qualified archeological consultant, based on standards developed by the Planning Department archeologist. The archeological consultant shall undertake an archeological monitoring program (AMP) as specified herein. In addition, the consultant shall be available to conduct an archeological data recovery program (ADRP) if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archeological Monitoring Program. The archeological consultant shall prepare and submit to the ERO for review and approval an AMP for the ground disturbing activities associated with construction of distribution pipelines along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park and a connection point to the Lincoln Park Pump Station. The AMP shall be conducted in accordance with the approved AMP. The AMP shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored and the frequency. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential human remains and to their depositional context;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of human remains;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation

with project archeological consultant, determined that project construction activities could have no effects on human remains;

- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If human remains are encountered, all soils-disturbing activities in the vicinity of the find shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the find is evaluated. The archeological consultant shall immediately notify the ERO of the encountered human remains.

If human remains are encountered, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: the SFPUC immediately notifies the San Francisco County coroner for (i) a determination that no investigation of the cause of death is required; and (ii) a determination whether the human remains are Native American. If the human remains are not Native American, and if the coroner determines the remains are not subject to his or her authority, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing and/or an ADRP. If the ERO determines that the human remains could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- A) The proposed project shall be re-designed so as to avoid any adverse effect on the human remains; or
- B) A data recovery program shall be implemented, unless the ERO determines that the find is of greater interpretive than research significance and that interpretive use of the find is feasible.

If the ERO determines the resource is a historical resource, the project sponsor shall preserve in place unless the ERO determines that preservation in place is not feasible, or, if feasible, that a data recovery program or interpretive use of the resource provides superior mitigation.

Archeological Data Recovery Program. If required by the ERO, the archeological data recovery program shall be conducted in accord with an ADRP. The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.

- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the ADRP.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey NWIC shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Impact Significance After Mitigation: Compliance with Mitigation Measure M-CP-5 would reduce impacts associated with accidental discovery of human remains related to the Golden Gate Cemetery to a less-than-significant level.

Cumulative Impacts

Impact C-CP: The proposed project could result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains. (Less than Significant with Mitigation)

Facility Construction, Siting, Operations, and Maintenance Effects on Cultural Resources

The geographic scope for the analysis of cumulative impacts on cultural resources includes the C-APE for the project and the immediate vicinity. The project would contribute to a cumulative impact on cultural resources, including historical, archaeological, and paleontological resources, if the other reasonably foreseeable future projects listed in Section 5.1.4 were to adversely affect the same cultural resources affected by the project or would affect other cultural resources in the project vicinity. Section 5.1.4,

Cumulative Impacts, describes the approach to the cumulative analysis used throughout this EIR, and summarizes cumulative projects in the vicinity of the project.

Cumulative projects that would occur in the vicinity of the project include the Oceanside WPCP Projects; San Francisco Groundwater Supply Project; Vista Grande Drainage Basin Improvement Project; Regional Groundwater Storage and Recovery Project; ParkMerced Project; 800 Brotherhood Way; Pacific Rod and Gun Club Upland Soil Remediation Action Project; Significant Natural Resources Area Management Plan Proposed Update; and Golden Gate Park, Lincoln Park, and Presidio Irrigation Retrofits and Additions.

Historical Resources

Cumulative projects in the project vicinity that could affect historical resources, including the Golden Gate Park Historic District, are the Oceanside WPCP Projects; San Francisco Groundwater Supply Project; Vista Grande Drainage Basin Improvement Project; Regional Groundwater Storage and Recovery Project; ParkMerced Project; 800 Brotherhood Way; Pacific Rod and Gun Club Upland Soil Remediation Action Project; Significant Natural Resources Area Management Plan Proposed Update; and Golden Gate Park, Lincoln Park, and Presidio Irrigation Retrofits and Additions. As described above, the only recorded historical resource within the project C-APE is the Doggie Diner sign, San Francisco Landmark #254, but construction of the project is not anticipated to significantly impact this resource. None of the above described projects are anticipated to impact the landmark sign; thus, no cumulative impacts on historical resources are anticipated.

Although the cumulative projects together would intensify uses in the southwestern area of the park, they would not substantially alter the Golden Gate Park Historic District because the changes brought about by these projects would largely be independent of one another; that is, observers of one would not simultaneously be able to see or experience another (due to existing and proposed vegetation). Due to these factors, the interaction of effects to historical resources would be largely attenuated.

No other projects are currently known by the Planning Department to be proposed in sufficiently close proximity to the project site, such that cumulative effects related to historic resources would be anticipated.

Archaeological Resources, Paleontological Resources, and Human Remains

The project could encounter previously unrecorded archaeological resources, paleontological resources, and/or human remains during project excavation. Implementation of **Mitigation Measure M-CP-2, Accidental Discovery of Archaeological Resources**, **Mitigation Measure M-CP-3: Accidental Discovery of Paleontological Resources** and **Mitigation Measure M-CP-4, Accidental Discovery of Human Remains**, which requires avoidance measures or the appropriate treatment of archaeological resources, paleontological resources, or human remains if accidentally discovered during project implementation would reduce impacts to a less-than-significant level. Additionally, due to the potential sensitivity for the presence of human remains associated with the former Golden Gate Cemetery along Clement Street, **Mitigation Measure M-CP-45, Archaeological Monitoring Program**, would also reduce impacts to a less-than-significant level. This measure requires the development of a monitoring program to monitor for the presence of human remains in the C-APE during construction. Cumulative projects in the project vicinity that would also involve excavation—including the Oceanside WPCP Projects; San Francisco

Groundwater Supply Project; Vista Grande Drainage Basin Improvement Project; Regional Groundwater Storage and Recovery Project; ParkMerced Project; 800 Brotherhood Way; Pacific Rod and Gun Club Upland Soil Remediation Action Project; Significant Natural Resources Area Management Plan Proposed Update; and Golden Gate Park, Lincoln Park, and Presidio Irrigation Retrofits and Additions—could also encounter previously unrecorded archaeological resources, paleontological resources, or human remains, which would be a potentially significant cumulative impact.

Without project-level mitigation, the project's contribution to this impact would be cumulatively considerable. However, project-related impacts on archaeological resources, paleontological resources, or human remains would be site-specific and limited to the project construction areas, and would be reduced to a less-than-significant level with implementation of Mitigation Measures M-CP-2 (Accidental Discovery of Archaeological Resources), M-CP-3 (Accidental Discovery of Paleontological Resources), and M-CP-4 (Accidental Discovery of Human Remains). These measures require the SFPUC to distribute the San Francisco Planning Department's archaeological resource "ALERT" sheet and provide paleontological resources training to the project prime contractor, subcontractors, and/or any utilities firm involved in soil-disturbing activities within the project site. If the ERO determines that an archaeological or paleontological resource may be present within the project site, the SFPUC shall retain the services of a qualified archaeological or paleontological consultant to evaluate the find. With regard to the accidental discovery of human remains, in particular, the county coroner must be immediately notified, and, in the event of the coroner's determination that the human remains are Native American, the NAHC must be notified. Implementation of these measures would effectively avoid damage to or loss of resources, and little to no residual impact would remain after mitigation. **Mitigation Measure M-CP-5** (Archaeological Monitoring Program) is also site-specific and is designed to reduce impacts on potential archaeological resources to a less-than-significant level. Therefore, the project's contribution to this cumulative impact would not be cumulatively considerable with mitigation and would be less than significant.

Impact Significance After Mitigation

Compliance with Mitigation Measures M-CP-2 through M-CP-5 would reduce impacts associated with accidental discovery of cultural resources to a less-than-significant level.

5.3 Transportation and Circulation

This section evaluates the transportation and circulation impacts that could occur during construction and operational activities associated with the proposed recycled water treatment plant and underground storage, as well as construction of and/or upgrades to distribution facilities (pipelines and pumping facilities). The impact analysis assesses whether construction and operational activities would cause significant impacts on traffic flow (including mass transit and non-motorized travel), traffic safety, or access within the surrounding roadway system.

5.3.1 Setting

The study area for transportation and circulation includes a network of regional and local roadways within the western portion of San Francisco. This roadway network (and unpaved service roads) would be used during the construction and operation of the recycled water treatment plant, pumping facilities, and pipeline installation, and/or for access by construction workers' vehicles and other construction vehicles, including trucks that would transport construction materials, excavated spoils, and fill materials to and from the work areas.

Regional Access

Various state and interstate highways provide regional access to the Westside Recycled Project (project) area and connect to the local roadway network. These roadways are described below.

State Route 1: State Route (SR) 1 is a six- to eight-lane, north-south highway that connects San Francisco with Peninsula communities (and points farther south) and North Bay communities (and points farther north). In the project area, SR 1 is a six-lane divided road (19th Avenue). According to California Department of Transportation (Caltrans) data, the annual average daily traffic on the 19th Avenue portion of SR 1 is about 72,000 vehicles.¹

State Route 35: SR 35 is a six-lane roadway that runs from SR 1 (19th Avenue) in San Francisco to SR 17 on the Peninsula. In the project area, the roadway is an east-west divided road (along Sloat Boulevard) that shifts to a north-south alignment (along Skyline Boulevard) with four travel lanes. According to Caltrans data, the annual average daily traffic on SR 35 is about 24,000 vehicles.²

Other highways that provide regional access, although not near the project area, include Interstate 280 (I-280), which connects with SR 1 and SR 35 south of the San Francisco/San Mateo county line, and I-80 and U.S. Highway 101, which connects to the local roadway network in the South of Market area of San Francisco (about six miles east of the project area).

¹ Caltrans, *2013 Traffic Volumes on California State Highways*, 2014.

² Ibid.

Local Access

The project area is served by a network of roads with various purposes: “arterials,” designed to carry traffic through an area; “collectors,” designed to connect arterials to local roads and land uses; and “local roads,” which provide direct access to land uses. The roadways that could be affected by construction and operation of the proposed pipeline projects are primarily two-lane roads, although some of the roads have four or six travel lanes (two or three in each direction). Most of the affected roads are residential streets with low traffic volumes. Roads with somewhat higher traffic volumes (e.g., Oak Street with about 35,000 vehicles per day) have higher carrying capacities, i.e., have more travel lanes. **Table 5.3-1** presents the roadway characteristics (e.g., number of lanes, bicycle lanes, parking availability, transit service) of the local roads that are likely to be used by construction workers and vehicles to access the project worksites.

**TABLE 5.3-1
 CHARACTERISTICS OF ROADWAYS IN THE PROJECT AREA**

Roadway / Segment	No. of Lanes	Bicycle Route? ^a	On-Street Parking Permitted?	Public Transit Lines?	Comments
1. Recycled Water Treatment Plant to Central Reservoir					
Skyline Boulevard: • Harding Road to Sloat Boulevard	Four lanes+ ^b	Yes (Route 91)	No	Yes (18 46th Avenue)	Painted median and left-turn lanes
Sloat Boulevard: • Skyline Boulevard to 37th Avenue	Six lanes+ ^b	Yes (Route 50)	Yes, north side	Yes (23 Monterey)	Raised median and left-turn lanes
37th Avenue: • Sloat Boulevard to Vicente Street	Two lanes	No	Yes, both sides	No	
Vicente Street: • 37th Avenue to 36th Avenue	Two lanes+ ^b	Yes (Route 60)	Yes, both sides	No	Left-turn lane
36th Avenue: • Vicente Street to Lawton Street	Two lanes	No	Yes, both sides	No	Trenchless construction under Taraval Street
Lawton Street: • 36th Avenue to 34th Avenue	Two lanes	No	Yes, both sides	No	
34th Avenue: • Lawton Street to Lincoln Way	Two lanes	Yes (Route 85)	Yes, both sides	No	Trenchless construction under Judah Street
Martin Luther King Jr. Dr.: • Sunset Boulevard to Metson Road	Two lanes	Yes (Route 34)	No	Park Shuttle	Park shuttle operates on weekends and holidays
Middle Drive West: • Metson Road to Overlook Drive	Two lanes	Yes (Route 34)	No	No	
Overlook Drive: • Middle Drive West to Central Reservoir	One lane	No	No	No	
2. Central Reservoir to 25th Avenue / Cabrillo Street					
Overlook Drive: • Central Reservoir Transverse Drive	One lane	No	No	No	
JFK Drive: • Central Reservoir Transverse Drive	Two lanes	Yes (Route 30)	Yes	No	

TABLE 5.3-1 (Continued)
CHARACTERISTICS OF ROADWAYS IN THE PROJECT AREA

Roadway / Segment	No. of Lanes	Bicycle Route? ^a	On-Street Parking Permitted?	Public Transit Lines?	Comments
2. Central Reservoir to 25th Avenue / Cabrillo Street (continued)					
Transverse Drive: • Overlook Drive to Crossover Drive	Two lanes	No	No	No	
Crossover Drive: • Transverse Drive to Fulton Street	Three or Four lanes	No	No	Yes (29 Sunset)	
25th Avenue: • Fulton Street to Cabrillo Street	Two lanes ^b	No	Yes, both sides	Yes (29 Sunset)	Two-way left-turn lane median
3. 25th Avenue / Cabrillo Street to Lincoln Park Golf Course					
Cabrillo Street: • 25th Avenue to 36th Avenue	Two lanes	Yes (Route 20)	Yes, both sides	No	
36th Avenue: • Cabrillo Street to Clement Street	Two lanes	No	Yes, both sides	No	Lafayette school bus stop fronts on 36th Avenue between Balboa and Anza
Clement Street: • 36th Avenue to 39th Avenue	Two lanes	Yes (Routes 10 and 95)	Yes, both sides	No	Speed humps
4. Central Reservoir to Presidio					
Cabrillo Street: • 25th Avenue to 24th Avenue	Two lanes	Yes (Route 20)	Yes, both sides	No	
24th Avenue: • Cabrillo Street to Anza Street	Two lanes	No	Yes, both sides	No	
Anza Street: • 24th Avenue to 16th Avenue	Two lanes	No	Yes, both sides	No	Traffic circle at Anza Street/ 23rd Avenue
16th Avenue: • Anza Street to Lake Street	Two lanes	No	Yes, both sides	No	
Lake Street: • 16th Avenue to 14th Avenue	Two lanes	Yes (Route 10)	Yes, both sides	No	
14th Avenue: • North of Lake Street	Two lanes	No	Yes, both sides	No	
5. Panhandle Distribution System					
John F. Kennedy Drive: • Conservatory Drive East to Kezar Drive	Two lanes	Yes (Route 30)	Yes, north side	No	
John F. Kennedy Drive: • Kezar Drive to Stanyan Street	Six lanes	Yes (Route 30)	No	No	
Oak Street: • Stanyan Street to Central Avenue	Three or four lanes	No	Yes, both sides	Yes (16X Noriega Express)	

^a A Class I bicycle path is a dedicated path separated from traffic. A Class II bicycle lane is a lane set aside exclusively for bicycles. Class III facilities are signed bicycle routes on roadways that allow shared use by bicycles and vehicles. The bicycle route number is shown in parentheses.

^b The number of lanes is the number of through travel lanes. The “+” refers to extra curb-to-curb width that provides other types of travel lanes (e.g., a left-turn lane on Vicente Street, and a two-way left-turn median on 25th Avenue).

SOURCE: Field reconnaissance by ESA, 2014.

Public Transit

The San Francisco Municipal Railway (Muni) provides bus service in proximity to the project area. Table 5.3-1 identifies the Muni bus lines that operate on local roads that are part of the proposed pipeline alignments. In addition to those bus lines (16X Noriega Express, 18 46th Avenue, 23 Monterey, and 29 Sunset), there are several other Muni bus routes, including NX Judah Express, 1 California, 1AX California "A" Express, 5L Fulton Limited, 31 Balboa, 31AX Balboa "A" Express, 38 Geary, 38L Geary Limited, 38AX Geary "A" Express, 38BX Geary "B" Express, 48 Quintara, 71 Haight-Noriega, and 71L Haight-Noriega Limited (as well as the Muni Metro streetcar lines N Judah and L Taraval) that operate on roads that are crossed by the pipeline alignments.

Muni's Transit Effectiveness Project (TEP), which was initiated by the San Francisco Municipal Transportation Agency (SFMTA) in collaboration with the City Controller's Office, presents a thorough review of San Francisco's public transit system. The TEP is aimed at improving reliability, reducing travel times, providing more frequent service, and updating Muni bus routes and rail lines to better match current travel patterns. The Planning Department published a Draft EIR on July 12, 2013; the Final EIR was certified by the Planning Commission on March 27, 2014 (Planning Department Case File No. 2001.0558E). The SFMTA Board of Directors approved the TEP on March 8, 2014. The TEP components will be implemented based on funding and resource availability. It is anticipated that the first group of service improvements will be implemented in fiscal year 2015, and the second group in a subsequent phase. TEP recommendations include new routes and route realignments, more service on busy routes, and elimination or consolidation of certain routes or route segments with low ridership. The 18 46th Avenue would be replaced by the 17 Parkmerced on part of its route (including on Skyline Boulevard and Sloat Boulevard in the project area). TEP proposals include improving service on the N Judah, which has been designated as part of the Rapid Network and thus is subject to travel time reduction elements (such as frequency increases, bus stop consolidations, etc.). Although 48 Quintara-24th Street and 71L Haight-Noriega Limited are not part of the Rapid Network, service on these lines would be extended (as the 71 Haight-Noriega) beyond the peak-hour service now provided.³

Bicycle/Pedestrian Circulation

In general, roadways that would be affected by construction activities have developed pedestrian facilities, including raised concrete sidewalks, striped crosswalks, and curb cuts at intersections. Bicycleways are classified as Class I (bicycle paths separated from roads), Class II (striped bicycle lanes within the paved areas of roadways), or Class III (designated and signed bicycle routes where cyclists share the street with vehicles). Table 5.3-1 identifies designated bicycle routes on local roads that are part of the proposed pipeline alignments, specifically Class III bicycle routes along Skyline Boulevard, Sloat Boulevard, Vicente Street, 34th Avenue, Martin Luther King Jr. Drive, Middle Drive West, John F. Kennedy Drive, Cabrillo Street, Clement Street, and Lake Street. The *San Francisco Bicycle Plan* does not identify any near-term or long-term bicycle improvement plans to be implemented in the project area.⁴

³ San Francisco Planning Department. *Transit Effectiveness Project (TEP) Final Environmental Impact Report*, March 27, 2014. Case No. 2011.0558E. Available online at <http://tepeir.sfplanning.org>. Accessed April 3, 2014. The document and supporting information also may be viewed at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA.

⁴ San Francisco Municipal Transportation Agency (SFMTA), *San Francisco Bicycle Plan*, June 2009.

Parking

Table 5.3-1 presents the availability of on-street parking spaces on local roads that are part of the proposed pipeline alignments, which is of interest primarily because of the potential that on-street parking spaces could be temporarily displaced to accommodate traffic flow past the construction zone during pipeline installation. The on-street parking spaces are, in general, not fully-occupied during weekday daytime hours, which is typical of residential streets.

5.3.2 Regulatory Framework

Federal Regulations

There are no federal regulations that address transportation impacts associated with the project.

State Regulations

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulating the use of state roadways. Caltrans' facilities that are likely to be used as access routes to the planned worksites by construction workers and construction vehicles include: I-280, U.S. 101, SR 1, and SR 35.

Caltrans' construction practices require temporary traffic control planning "during any time the normal function of a roadway is suspended."⁵ Furthermore, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbance. However, project-related construction and maintenance vehicles would utilize state roadways solely as access routes for construction workers, and construction vehicles and project construction would not occur on state highways or highway rights-of-way; therefore, Caltrans encroachment permits would not be required. Further, oversized vehicles (by weight, height, length, or width) or vehicles carrying hazardous materials that require Caltrans permits would not be used.

Local Regulations

The San Francisco Department of Public Works (SFPDW) regulates work involving excavations in city streets under Public Works Code Article 2.4. The City and County of San Francisco (CCSF) coordinates all street activities through the SFMTA's Transportation Advisory Staff Committee (TASC), which includes representatives from the SFPDW, the SFMTA, and the Fire, Planning, Police, Port, and Public Health Departments. The San Francisco Public Utilities Commission (SFPUC), as part of its adopted Standard Construction Measures, would abide by the SFMTA's *Regulations for Working in San Francisco Streets* (Blue Book)⁶ and coordinate its construction work through the Street Construction Coordination Center of the SFPDW and the TASC. The Blue Book regulations generally pertain to permits required to work in city streets; work performed in streets with special restrictions; lane closure requirements; parking removal; sidewalk closures; construction zone standards; transit operations; school zones; bicycle routes; use of police

⁵ Caltrans, *California Manual on Uniform Traffic Control Devices*, Amended January 13, 2012.

⁶ SFMTA, *Regulations for Working in San Francisco Streets*, 8th Edition, January 2012. Available online at http://www.sfmta.com/sites/default/files/pdfs/BlueBook8thEd_Accessible.pdf

officers; detectors in city streets; and emergency procedures. As part of the TASC process, the SFPUC, in conjunction with the SFDPW and SFMTA, would develop and incorporate a detailed Construction Management Plan into its contract specifications, and further coordinate with SFMTA Street Operations division for any work on or near transit facilities. Requirements of the Construction Management Plan would include, but not necessarily limited to, the following:

- Circulation and detour routes shall be developed (with flaggers, signage, and safety protocols) to minimize impacts on local street circulation during road and lane closures.
- Truck routes designated by the CCSF shall be identified, and truck trips shall be scheduled during hours of the day other than the peak morning and evening commute hours to the extent possible.
- Sufficient staging areas shall be developed for trucks accessing construction zones to minimize disruption of access to adjacent land uses, particularly within residential neighborhoods.
- Construction vehicle movement shall be controlled and monitored through the enforcement of standard construction specifications by onsite inspectors.
- Roads shall be restored to the pre-project number of lanes, with all trenches covered with steel plates or the equivalent, outside of allowed working hours, or when work is not in progress.
- Pedestrian and bicycle access and circulation shall be maintained where safe to do so.
- All equipment and materials shall be stored in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.
- Portable, changeable message signs shall be used to provide advance notice of lane closures.

As described in Chapter 3, Project Description, the majority of planned pipeline alignments would be located within existing public roadways. Prior to the construction of these pipelines, the SFPUC would coordinate with other CCSF departments as described above.

As part of the SFPUC commitment under its Standard Construction Measures to consult with local traffic and transit agencies, in addition to complying with the requirements of SFDPW spelled out above, the SFPUC would coordinate any work on streets under the jurisdiction of the Recreation and Park Commission with the Recreation and Park Department and address traffic control within such areas in its construction management plan.

San Francisco General Plan

The Transportation Element of the *San Francisco General Plan* contains objectives and policies that relate to the nine aspects of the citywide transportation system: general regional transportation, congestion management, vehicle circulation, transit, pedestrian, bicycles, citywide parking, and goods management.⁷ The applicability of the *San Francisco General Plan* to the proposed project is addressed in Chapter 4, Plans and Policies. The Transportation Element references San Francisco's Transit-First Policy in its introduction, and contains objectives and policies that are directly pertinent to the proposed project.

⁷ CCSF, *San Francisco General Plan, Transportation Element*, Adopted July 1995. Available online at http://www.sf-planning.org/ftp/general_plan/14_Transportation.htm, Accessed February 11, 2015.

San Francisco Bicycle Plan

The *San Francisco Bicycle Plan* describes a program to provide the safe and attractive environment needed to promote bicycling as a transportation mode within the city.⁸ The applicability of this plan to the proposed project is addressed in Chapter 4, Plans and Policies.

Transit-First Policy

In 1998, San Francisco voters amended the City Charter (Charter Article 8A, Section 8A.115) to include a Transit-First Policy. The Transit-First Policy is a set of principles that underscore the city's commitment that transit, bicycle, and pedestrian travel be given priority over travel by private automobile. These principles are embodied in the policies and objectives of the Transportation Element of the *San Francisco General Plan* and are addressed in Chapter 4, Plans and Policies.

5.3.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, the project would have a significant effect on transportation and circulation if it were to:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit, non-motorized travel, and relevant components of the circulation system (including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit);
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Due to the nature of the proposed project, there would be no impact related to the following topic for the reasons described below:

- ***Substantially Increase Hazards due to a Design Feature.*** Implementation of the project would not permanently change the existing or planned transportation network and would not include any design features that would permanently increase the potential for traffic safety hazards. Therefore, this significance criterion is not applicable to the proposed project and is not discussed further.

As part of implementing California Environmental Quality Act (CEQA) requirements within San Francisco, the CCSF has established additional criteria, as shown below. These criteria are organized by mode of travel to facilitate analysis; however, the transportation significance thresholds are essentially the same as those in Appendix G of the CEQA Guidelines, as listed above:

⁸ SFMTA, *San Francisco Bicycle Plan*, June 2009.

- The operational impact on signalized intersections is considered significant when project-related traffic causes the intersection level of service (LOS) to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The project may result in significant adverse impacts at intersections that operate at LOS E or F under existing conditions depending on the magnitude of the project's contribution to the worsening of the average delay per vehicle. In addition, the project would have a significant impact if it would cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.
- The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service, or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines⁹ analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the evening peak hour.
- The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.
- The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.
- The project would have a significant effect on the environment if it would result in a loading demand during the peak hour for loading activities that could not be accommodated within proposed onsite loading facilities or within convenient on-street loading zones, and would create potentially hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians.
- The project would have a significant effect on the environment if it would result in inadequate emergency access.
- Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

Approach to Analysis

Following construction, the SFPUC would restore excavated areas to their general preconstruction conditions and in accordance with SFPUC design standards,¹⁰ and operation of the project would not generate new daily vehicle trips except for those required for occasional maintenance. As described in Section 3.4.3, Operation and Maintenance, operation of the recycled water treatment plant would require approximately four full-time employees, and operation and maintenance of other project facilities would be performed by existing SFPUC employees and would be similar to operation and maintenance activities that already occur at the Central Reservoir or other in-street pipelines. Therefore, project operation would not have a noticeable effect on the transportation network. Consequently, the analysis focuses on construction-related transportation impacts rather than operational impacts.

⁹ Identified corridors served by a grouping of transit lines.

¹⁰ See Chapter 3, Project Description, for a description of the requirements of Section 2.4.21 of the Public Works Code, which states that for any streets that have been reconstructed, repaved, or resurfaced by any entity within the previous 5-year period, project proponents must obtain a permit or waiver prior to performing any excavation activities.

As indicated in the significance criteria above, construction-related transportation impacts are not generally considered significant because of their temporary duration and limited scope. Nevertheless, the analysis considers the potential short-term effects of construction—including those on traffic operations (including transit), pedestrian/bicycle facilities, commercial and passenger loading facilities, and emergency access. The construction-related information used for the analysis is based on current project specifications, including construction durations (see Chapter 3, Project Description), and similar construction projects throughout the city.

Given the minor effect the project operation would have to transportation and circulation systems, for the reasons described below, no separate impact discussion is provided for these topics:

- **LOS Standards.** The LOS standards established by the San Francisco Planning Department are intended for use in evaluating traffic impacts related to added vehicle trips during project operation and are generally not applicable to construction-related vehicle traffic. Because project construction would be transitory in nature and effects on intersection operations would be temporary, an LOS analysis for construction is not required. Furthermore, project operations following construction of the planned facilities would only require periodic maintenance and would not result in a substantial change in vehicle trips, as further discussed below. Following construction, roadways would be restored to their general preconstruction condition; therefore, the project would not result in long-term impacts on the roadways used to access the project area. Construction-related traffic impacts resulting from the project are discussed under Impacts TR-2 and TR-3.
- **Transit Demand.** Project operations would create few, if any, transit trips that could affect transit demand or transit service screenlines near the project sites. As described in Chapter 3, Project Description, Section 3.4.3, Operation and Maintenance, operation of the recycled water treatment plant would require approximately four full-time employees, and operation and maintenance of other project facilities would utilize existing SFPUC employees. The pipeline alignment roadways (inclusive of signage, transit facilities, sidewalks, etc.) would be restored to general preconstruction conditions. Therefore, operation of the planned facilities would not substantially increase the demand or use of transit in the area and would not alter transit facilities in the project areas. Potential conflicts with operational vehicles and transit and construction-related impacts are further discussed below.
- **Pedestrian/Bicycle Facilities.** Project operations would not create new pedestrian or bicycle trips that could affect bicycle or pedestrian facilities in the project area, given that maintenance of the project facilities would be conducted by city vehicles. Following construction, any temporarily affected pedestrian or bicycle facilities would be restored to their general preconstruction condition; therefore, operation of the planned facilities would not result in overcrowding of or increased demand for pedestrian and bicycle facilities. Potential conflicts with operational vehicles as well as construction-related impacts are further discussed below.
- **Loading Demand.** Project operations would not create new commercial vehicle trips and thus no substantial demand, if any, for commercial parking spaces. Similarly, following construction, any temporarily displaced commercial parking spaces would be restored to their general preconstruction condition; therefore, operation of the planned facilities would not result in loading impacts. Potential construction-related conflicts with vehicles, including commercial vehicles, are further discussed below.

Construction of the project elements would generate vehicle traffic (construction workers' vehicles, equipment, and trucks) traveling to and from the worksites on area roads. All project elements would generate daily commute trips by construction workers. Truck traffic would include vehicle trips to

deliver materials/equipment to the site and to haul excavated or fill material, building debris from demolition, trees, and other vegetation away from the site.

The transportation impacts identified below allow for a general assessment of the nature and magnitude of potential impacts associated with the construction of each project component. Construction-related worker vehicles and trucks associated with each project component (treatment plant, pump station, and distribution pipelines) would travel on different routes because the components are not located near each other, except when pipeline construction would occur near the two proposed facilities. During these times, it is possible that concurrent construction activities could result. Thus, traffic generation is described for individual project components and for potential construction of concurrent project components. Impacts associated with concurrent construction activities would be limited to construction-generated traffic using the same roads due to the relative proximity of the project worksites.

The CCSF does not consider parking supply to be part of the permanent physical environment, and therefore does not consider changes in parking conditions to be environmental impacts as defined by CEQA. However, the social inconvenience of parking deficits, such as having to search for scarce parking spaces, may result in secondary physical environmental impacts such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. For this reason and because parking conditions may be of interest to the public and decision-makers, parking conditions are discussed herein.

Impact Summary

Table 5.3-2 summarizes the proposed project’s transportation and circulation impacts and significance determinations. Impacts are numbered following the sequence from the Initial Study (Appendix A), which addressed the project’s less-than-significant congestion management program impacts under Impact TR-1.

**TABLE 5.3-2
 SUMMARY OF IMPACTS – TRANSPORTATION AND CIRCULATION**

Impact	Significance Determination
Impact TR-2: Closure of travel lanes during project construction would temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel, but the effects would be of short duration and limited in magnitude.	LS
Impact TR-3: Project construction would cause temporary increases in traffic volumes on area roadways, but would not cause substantial conflicts with the performance of the circulation system.	LS
Impact TR-4: Project construction within roadways would not substantially limit access to adjacent roadways and land uses.	LS
Impact TR-5: Project construction would not substantially impair access to alternative transportation facilities (public transit, bicycle, or pedestrian facilities), although it could temporarily deteriorate the performance of such facilities.	LS
Impact TR-6: Project operations and maintenance activities would cause some increases in traffic volumes on area roadways, but would not substantially alter transportation conditions and would not cause conflicts with alternative travel modes, including vehicles, emergency vehicles, transit, pedestrians, and bicycle traffic.	LS
Impact C-TR: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative traffic increases on local and regional roads.	LS

NOTES:

LS = Less than Significant impact, no mitigation required

Impact Analysis

Impact TR-2: Closure of travel lanes during project construction would temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel, but the effects would be of short duration and limited in magnitude. (Less than Significant)

Construction of the proposed recycled water treatment plant, underground water storage reservoir, and construction of and upgrades to pumping facilities at the Oceanside Treatment Plant, Golden Gate Park and Panhandle area would not require the closure of any travel lanes; therefore, construction activities associated with these aspects of the project would not reduce the travel lane capacity of roads that provide access to those facility sites. However, pipeline installation in roadways would require temporary closure of travel lanes and could require temporary full closure of one city block at a time on two-lane roads, which would affect travel lane capacity. If full closure were needed, local traffic (by residents of the affected block) and emergency access would be maintained throughout the closure; other through traffic would be detoured to other roadways.¹¹ The ability of the circulation system to accommodate all modes of transportation (auto, transit, and non-motorized modes) during pipeline installation is discussed below. Construction activities are expected to occur primarily during daytime hours (7:00 a.m. to 5:00 p.m.), 5 days a week, on normal (non-holiday) weekdays (Monday through Friday); however, more restricted construction hours may be required in the vicinity of the Golden Gate Park Panhandle. No nighttime or weekend construction work is proposed. For work within city streets, the SFPUC would require its contractor to comply with the SFMTA's Blue Book, and for any travel lane or sidewalk closures to obtain review and approval by the TASC, which consists of representatives from City of San Francisco agencies such as the SFMTA, the SFDPW, and the Fire, Planning, Police, Port, and Public Health Departments. In addition, Muni's Street Operations and Special Events Office would review any potential project effects on transit operations prior to construction to further coordinate construction activities and ensure construction activities do not impede SFMTA service. For work within Golden Gate Park, the SFPUC would require its contractor to coordinate the management of construction traffic with the San Francisco Recreation and Parks Department, as access to some park facilities could be altered during the installation of distribution pipelines from 34th Avenue/Lincoln Way to Middle Drive West (Pipeline Segment 1) and in Transverse Drive (Pipeline Segment 2). Should the San Francisco Zoo (Zoo) become a recycled water customer in the future, construction of recycled water distribution facilities could be required, and closure of travel lanes during any pipeline installation and associated impacts would be coordinated with the Zoo and would be similar to those described below because the rate of progress and requirements in the Construction Management Plan regarding management of lane closures would also apply to construction of Zoo components.

¹¹ Project schedule and phasing would be coordinated with the contractor. In the event that the contractor mobilizes multiple crews, multiple blocks may be closed at the same time; however, it is assumed that the blocks would be in separate locations, not consecutive.

Pipeline Alignments

Pipeline construction within the Sunset District, and Richmond District would require the temporary closure of one travel lane and, in some cases, the temporary prohibition of on-street parking. As stated above, pipeline installation also could temporarily require full closure of one city block at a time on two-lane roads; multi-lane roads (e.g., Skyline Boulevard and Oak Street) would not be subject to full road closure. If full closure were needed, traffic would be detoured to other roadways, except for emergency vehicles and for local residents of the affected block. As stated below, the duration of the temporary lane or road closure would be about two weeks. Generally, the pipeline route would be located in the center of a single lane of each roadway. Project staging areas would be established adjacent to pipeline alignments throughout the project area and would be relocated as necessary to follow the pipeline construction as it progresses, block-by-block, along the pipeline route. As part of the above-mentioned TASC process and other City processes, the SFPUC, working with the SFDPW and SFMTA, would implement a Construction Management Plan and would coordinate with the appropriate jurisdictional agencies through the Street Construction Coordination Center of the SFDPW and the TASC to develop procedures for managing lane closures during pipeline construction. Under these procedures, the SFPUC would endeavor to maintain traffic flow by providing a minimum of one access lane on most streets from 7:00 a.m. to 5:00 p.m. (see above regarding the potential need for full closure of a city block) and would maintain local access at all times for residents and businesses on the block affected by a full closure. Lanes closed during construction hours would be made available outside of these hours, to the extent possible.

Trenching for pipeline construction using the open-cut trench method would progress at an estimated rate of 100 to 300 feet per day (on average); ductile pipe installation would progress at approximately 100 feet per day, and sawcutting would progress at a rate of approximately 1,000 feet per day. It is estimated that the duration of construction at any one location would be approximately two weeks, including repaving and other finish work. Subsequent final paving would progress at a similar rate of about 300 feet per day, or about two days per city block, and would occur after a substantial length of pipeline had been constructed. The range of daily and weekly progress takes into account the potential for noncontinuous construction activities.

During project construction, single-lane closures would be necessary along most pipeline routes, and full road closures (one city block at a time) could be necessary, as described above. In order to maintain two-way traffic flow on two-lane roads where full closure is not required, these single-lane closures would require either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block. During construction, motorists could choose to divert to other streets, bypassing the construction zone. Lane closures would extend the length of approximately one city block at any given time. The effect on traffic flow and circulation would be less than significant because the reductions in road capacity due to temporary lane and single block closures would be localized and temporary (i.e., approximately two weeks at any one location).

In the case of roads in Golden Gate Park, pipeline construction would similarly require the temporary closure of one travel lane and, in some cases, the temporary prohibition of on-street parking. Full (around-the-clock) closure of narrow park roadways, such as Overlook Drive and Middle Drive West, would be temporarily required for the duration of construction activity that affects those roadways (see Pipeline Segments 1 and 2, below). SFPUC through its Construction Management Plan would work with

the Recreation and Park Department to develop alternative access routes to public park facilities during such closure.

Pipeline Segment 1 (Recycled Water Treatment Plant to Central Reservoir). As described in Chapter 3, Project Description, and shown in Figure 3-1, the planned pipeline would connect with the Oceanside Water Pollution Control Plant and would be installed in Skyline Boulevard northeast to Sloat Boulevard, then east to 37th Avenue, then north to Vicente Street, then east to 36th Avenue (crossing Sunset Boulevard), then north to Lawton Street, then east to 34th Avenue, then north to Middle Drive West (crossing Lincoln Way and Martin Luther King, Jr. Drive), then northeast to Overlook Drive, and then northeast to the Central Reservoir. Construction activities along these affected roadways would temporarily disrupt existing circulation patterns because either lanes, or the entire road (for a city block outside Golden Gate Park, and for the entire length of Overlook Drive within Golden Gate Park), would need to be closed, requiring either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block to maintain two-way traffic flow, or a detour of through traffic if the entire city block were closed. To avoid the construction area, motorists could choose to travel on other nearby streets. For streets under SFDPW jurisdiction, the specific treatment to maintain traffic flow would be determined on a case-by-case basis during the TASC process. Construction activities at intersections would temporarily affect cross-traffic as well, requiring some travel lane diversion around the construction area. For example, construction across Lincoln Way would require that work occur in phases to minimize the impact of lane closures on that arterial. For roadways and park areas under the jurisdiction of the Recreation and Park Commission, specific treatment to maintain traffic flow and access to park facilities would be determined in consultation with the Recreation and Park Department, but little traffic disruption would be expected to occur because Overlook Drive and Middle Drive West are not through roads for vehicles, and traffic flow would be maintained on Martin Luther King, Jr. Drive when lane closures would be needed.

Trenchless pipeline boring is proposed under Taraval Street and Judah Street (on 36th Avenue and 34th Avenue, respectively), where SFMTA light rail tracks are located. This work would require augering pits, which would displace a single travel lane and possibly on-street parking. The driving/receiving pits would remain open throughout the trenchless pipeline installation at this location. However, steel plates would be placed over the pit to return the travel lane (and parking) to usage at the end of the workday, generally after 5:00 p.m. The duration of construction using the augering pits (including temporary pavement restoration) would be approximately 4 weeks for pipeline installation at these locations. Similar to other pipeline segments, temporary asphalt paving would be replaced with final (permanent) paving when the entire pipeline segment is completely installed.

Due to the short duration and limited magnitude of traffic disruptions at any one location and overall, and the required coordination and review of the project's Construction Management Plan by the multi-agency TASC and with the Recreation and Park Department, processes that would result in minimizing localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant, and no mitigation is required.

Pipeline Segment 2 (Central Reservoir to 25th Avenue/Cabrillo Street). As described in Chapter 3, Project Description, and shown in Figure 3-1, the planned pipeline would be installed in Golden Gate Park in Overlook Drive or John F. Kennedy Drive from the Central Reservoir to Transverse Drive, and then northwest to Crossover Drive, where it would exit Golden Gate Park. It would then run northwest to

25th Avenue, and then north to Cabrillo Street (crossing Fulton Street). Construction activities along these affected roadways would temporarily disrupt existing circulation patterns because either lanes, or the entire road, would need to be closed, requiring either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block to maintain two-way traffic flow, or a detour of through traffic if the entire city block were closed. To avoid the construction area, motorists could choose to travel on other nearby streets. For streets under SFPDW jurisdiction, the specific treatment to maintain traffic flow would be determined on a case-by-case basis during the TASC process. Construction activities at intersections would temporarily affect cross traffic as well, requiring some travel lane diversion around the construction area. For example, construction across Fulton Street would require that work occur in phases to minimize the impact of lane closures on that arterial. For roadways and park areas under the jurisdiction of the Recreation and Park Commission, specific treatment to maintain traffic flow and access to park facilities would be determined in consultation with the Recreation and Park Department, but little traffic disruption would be expected to occur because Overlook Drive is not a through road for vehicles, and traffic flow would be maintained on John F. Kennedy Drive when lane closures would be needed.

Due to the short duration and limited magnitude of traffic disruptions, and the required coordination and review of the project's construction management plan by the multi-agency TASC and coordination with the Recreation and Park Department to address localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant, and no mitigation is required.

Pipeline Segment 3 (25th Avenue/Cabrillo Street to Lincoln Park Golf Course). As described in Chapter 3, Project Description, and shown in Figure 3-1, the planned pipeline would be installed in Cabrillo Street from 25th Avenue west to 36th Avenue, then north to Clement Street (crossing Geary Boulevard), and then west to the Lincoln Park point of connection at 39th Avenue/Clement Street. Construction activities along these affected roadways would temporarily disrupt existing vehicle circulation patterns because either lanes, or the entire road (for a block), would need to be closed, requiring either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block to maintain two-way traffic flow, or a detour of through traffic if the entire block were closed. To avoid the construction area, motorists could choose to travel on other nearby streets. The specific treatment to maintain traffic flow would be determined on a case-by-case basis during the TASC process. Construction activities at intersections would temporarily affect cross traffic as well, requiring some travel lane diversion around the construction area. For example, construction across Geary Boulevard would require that work occur in phases to minimize the impact of lane closures on that arterial.

Due to the short duration and limited magnitude of traffic disruptions, and the required coordination and review of the project's Construction Management Plan by the multi-agency TASC to address localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant, and no mitigation is required.

Pipeline Segment 4 (25th Avenue/Cabrillo Street to Presidio). As described in Chapter 3, Project Description, and shown in Figure 3-1, the planned pipeline would be installed in Cabrillo Street from 25th Avenue east to 24th Avenue, then north to Anza Street, then east to 16th Avenue, then north to Lake Street (crossing Geary Boulevard), then east to 14th Street, and then north to a proposed turnout at 14th Avenue north of Lake Street. Construction activities along these affected roadways would

temporarily disrupt existing circulation patterns because either lanes, or the entire road (for a block), might need to be closed, requiring either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block to maintain two-way traffic flow, or a detour of through traffic if the entire block were closed. To avoid the construction area, motorists could choose to travel on other nearby streets. The specific treatment to maintain traffic flow would be determined on a case-by-case basis during the TASC process. Construction activities at intersections would temporarily affect cross traffic as well, requiring some travel lane diversion around the construction area. For example, construction across Geary Boulevard would require that work occur in phases to minimize the impact of lane closures on that arterial.

Due to the short duration and limited magnitude of traffic disruptions and the required coordination and review of the project's Construction Management Plan by the multi-agency TASC to address localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant, and no mitigation is required.

Pipeline Segment 5 (Panhandle Distribution System). As described in Chapter 3, Project Description, and shown in Figure 3-1, the proposed pipeline would connect to an existing irrigation main in Golden Gate Park at Conservatory Drive East and John F. Kennedy Drive, and would be installed in John F. Kennedy Drive east where it would exit Golden Gate Park. It would then be installed in Oak Street (crossing Stanyan Street), east to a booster pump connection near Central Avenue. Construction activities along these affected roadways would temporarily disrupt existing circulation patterns because lanes would need to be closed, requiring either alternating one-way traffic flow or the removal of parking spaces on one or both sides of the block to maintain two-way traffic flow. To avoid the construction area, motorists could choose to travel on other nearby streets. The specific treatment to maintain traffic flow would be determined on a case-by-case basis during the TASC process. Construction activities at intersections would temporarily affect cross traffic as well, requiring some travel lane diversion around the construction area. For example, construction across Stanyan Street would require that work occur in phases to minimize the impact of lane closures on that arterial.

Due to the short duration and limited magnitude of traffic disruptions and the required coordination and review of the project's Construction Management Plan by the multi-agency TASC to address localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant, and no mitigation is required.

Construction Management Plan

As described above, the SFPUC would implement a Construction Management Plan. The Construction Management Plan would, at a minimum, include the elements listed below, which are required elements for Construction Management Plans under SFMTA's Blue Book.

- Circulation and detour routes shall be developed to minimize impacts on local street circulation during road and lane closures. For example, lane closures shall generally avoid the AM and PM peak commute periods. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone. Roadside construction safety protocols shall be implemented.
- Truck routes designated by the CCSF shall be identified. Haul routes that minimize truck traffic on local roadways and residential streets shall be utilized to the extent possible.

- Sufficient staging areas shall be developed for trucks accessing construction zones to minimize disruption of access to adjacent land uses, particularly at entries to onsite pipeline construction within residential neighborhoods.
- Construction vehicle movement shall be controlled and monitored by onsite inspectors through the enforcement of standard construction specifications.
- Truck trips shall be scheduled during hours of the day other than the peak morning and evening commute hours to the extent possible.
- Roads shall be restored to the pre-project number of lanes, with all trenches covered with steel plates or the equivalent outside of allowed working hours or when work is not in progress.
- Pedestrian and bicycle access and circulation shall be maintained during project construction where safe to do so. The contractor shall be required to maintain bicycle lanes/lane widths to accommodate bicycle traffic or seek a permit from the SFMTA to address bicycle route detours and signage for any lane closures. Where construction activities encroach on a bicycle lane, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted to indicate that bicycles and vehicles are sharing the lane and to warn bicyclists and drivers of upcoming traffic hazards. If construction activities encroach on a sidewalk, safe crossings and appropriate signage shall be provided for pedestrians.
- All equipment and materials shall be stored in designated contractor staging areas on or adjacent to the worksite so that traffic obstruction is minimized.
- Construction shall be coordinated with facility owners or administrators of police and fire stations (including all fire protection agencies), transit stations, hospitals, and schools. Facility owners or operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures. Emergency service vehicles shall be given priority for access.

While not requirements of SFMTA's Blue Book, the following additional elements are typically included in Construction Management Plans, with the intent of minimizing disruptions to surrounding neighborhoods, resources, and land uses during project construction activity:

- A public information plan shall be developed to provide adjacent residents and businesses with regularly updated information (starting with a 10-day public notice in advance of project construction) regarding project construction in their area, including construction activities, durations, peak construction vehicle activities (e.g., excavation), travel lane and other lane closures, and full road closures. This information shall also be presented on the SFPUC website and updated regularly as construction conditions change.
- Portable changeable message signs shall be used to provide advance notice of lane closures.
- The contractor shall be encouraged to reduce the number of vehicle trips by construction workers by facilitating the use of public transportation and minimizing the construction work parking supply.

The Construction Management Plan would serve to inform city agencies of project construction and to minimize temporary traffic effects in the vicinity of the construction areas.

Mitigation: None required.

Impact TR-3: Project construction would cause temporary increases in traffic volumes on area roadways, but would not cause substantial conflicts with the performance of the circulation system. (Less than Significant)

Each of the construction activities (excavation, construction of water treatment plant and reservoir facilities, installation of new pipeline, backfilling of excavated areas, and site restoration) would generate various types of vehicle trips: construction workers' vehicles traveling to and from the worksites; haul trucks associated with the transfer and disposal of excavation materials; haul trucks importing backfill materials; and delivery trucks bringing materials and equipment to the worksites. Construction activities are expected to occur primarily during daytime hours (7:00 a.m. to 5:00 p.m.), 5 days a week, on normal (non-holiday) weekdays (Monday through Friday); however, more restricted construction hours may be required in the vicinity of the Golden Gate Park Panhandle.¹² No nighttime or weekend construction work is proposed. Should the Zoo become a recycled water customer in the future, construction of recycled water distribution facilities could be required, and the type and number of vehicle trips and associated impacts would be similar to those described below because the rate of progress and requirements in the Construction Management Plan regarding scheduling of truck trips would also apply to construction of Zoo components.

Construction-Related Vehicle Trips

Construction of each element of the project would result in short-term increases in the above-described vehicle trips on area roadways. The number of construction-related vehicle trips would vary each day depending on the type of project component, construction phase, planned activity, and material needs. The addition of construction traffic to the current roadway volumes, without an increase in roadway capacity, could result in increased congestion and delays for vehicles, including public transit. The presence of construction trucks, with their slower speeds and larger turning radii, could result in some vehicle delays and congestion. The actual impact of construction vehicle traffic on local and regional roadways would vary by time of day, the number and type of construction-related vehicles, the number of travel lanes on the affected roadways, and existing traffic volumes on these roadways. The impacts of construction traffic would be most noticeable on roadways in the immediate vicinity of the project worksites and less noticeable on roadways farther from the sites (as project trips disperse over the road network) and on regional roadways.

Worker Vehicle Trips. Construction at the Oceanside Water Pollution Control Plant (WPCP) site and the Central Reservoir site would each require one crew of approximately 18 workers on a given day, traveling to and from the worksites in up to 18 vehicles (i.e., assuming that all workers would travel to and from the project site in their own vehicles). Construction for installation of pipeline segments would require three crews of six workers (i.e., up to 18 workers on a given day, traveling to and from the worksites in up to 18 vehicles, assuming that all workers would travel to and from the project site in their own vehicles). Generally, construction workers associated with each project component (treatment plant, reservoir, and distribution pipelines) would travel on different routes because the project sites are not located near each other, except when pipeline construction occurs near the two proposed facilities.

¹² Truck and worker trips at project facility sites would end at 4:30 p.m. However, trucks leaving the sites at 4:30 p.m. would not reach their destinations until about 5:00 p.m.

During these times, it is possible that concurrent construction activities could result in approximately 36 worker vehicles (72 one-way vehicle trips) per day traveling on the same routes.

Haul Truck Trips. The number of construction-related haul truck trips per day would vary depending on the type of construction technique, the volume of spoils and fill, and the pace of work. As presented in Chapter 3, Project Description, open-cut trenching and excavation would be used during pipeline installation, which would require haul trucks to export excavated spoils and import fill material along the alignment. Construction at the Oceanside WPCP site and the Central Reservoir site would typically generate up to approximately 10 one-way truck trips per day (including deliveries and off-haul). Other construction elements (e.g., installation of pipeline segments, which would generate about 8 one-way truck trips per day) would generate truck trips at a level lower than that peak level. Construction-related trucks associated with each project component (treatment plant, reservoir, and distribution pipelines) would travel on different routes because the project sites are not located near each other, except when pipeline construction occurs near the two proposed facilities. During these times, it is possible that concurrent construction activities could result in approximately 18 truck one-way trips per day traveling on the same routes. Local and regional roadways would be used to haul construction materials; construction truck traffic would be required to follow City-designated truck routes to the project sites (e.g., Sunset Boulevard, Lincoln Way, and Fulton Street), as well as other streets that provide the most direct route to the worksite and minimize the use of local streets.

As described in the Project Description and above, it is expected that construction activities would occur primarily during the weekday daytime hours (7:00 a.m. to 5:00 p.m.). Worker trips to the worksites would occur prior to the morning peak traffic hour, but trips from the worksites would likely occur during the afternoon peak traffic hour. Haul truck trips would be spread over the course of the day.

As described in Chapter 3, Project Description, among the current uses at the Central Reservoir site are wood waste and composting areas. During project construction at the Central Reservoir site, park maintenance activities associated with wood waste storage, and chipping/composting operations would be relocated to the former Richmond-Sunset Water Pollution Control Plant site (referred to as the “West End Dump”) at the western part of Golden Gate Park (north of Martin Luther King Jr. Drive and east of the Murphy Windmill and Millwright’s Cottage). This would result in temporary shifting of park maintenance traffic (Park maintenance trucks and Park worker autos) from one area of the park to another, and a temporary increase in vehicles on Martin Luther King Jr. Drive near the “West End Dump” (with a parallel decrease in maintenance vehicles on Middle Drive West near the Central Reservoir site). However, the level of increased traffic on Martin Luther King Jr. Drive would not be substantial, would be temporary, and as a result, would not have a significant effect on traffic flow conditions.

The highest concentration of vehicle trips to and from the construction worksites would be on the roads that provide direct access to the sites (e.g., on Skyline Boulevard for the Oceanside WPCP site). However, it is reasonably assumed that workers’ residences would be spread among Bay Area cities, and that project trips would be dispersed on different roads. On that basis, because the estimated daily vehicle trips associated with concurrent construction activities represent less than 1 percent of existing traffic volumes on regional roads (e.g., SR 35 and SR 1) and would be dispersed, they would therefore not substantially alter the existing traffic operations of those roads. While the addition of this project traffic on local roads (e.g., 36th Avenue) may be noticeable, the existing traffic operations would not be substantially affected because

of the relatively low traffic volumes on these roads. Construction activities associated with other (less trip-generation-intensive) project components would have less of an effect on area roadways than the above-described concurrent project components. Therefore, the impact related to temporary increases in traffic volumes during project construction would be a minor lessening of roadway traffic-carrying capacities due to the slower movement and larger turning radii of trucks, which could affect traffic and transit operations. However, due to its temporary nature and limited magnitude, this construction-related increase in traffic and truck volumes would not be substantial. Furthermore, if deemed necessary by the SFMTA/SFDPW during the TASC review, a measure could be included in the project-specific Construction Management Plan to limit project-related truck trips and deliveries during the peak commute periods for particular project components. Although the need to reroute transit vehicles is not expected, construction would be coordinated with the SFMTA Muni Operations to determine any temporary rerouting for bus lines in work zones (if needed). Considering all of the above, the impact would be less than significant, and no mitigation is required.

Mitigation: None required.

Impact TR-4: Project construction within roadways would not substantially limit access to adjacent roadways and land uses. (Less than Significant)

Construction along affected roadways as well as temporary roadway and lane closures could result in impaired access to adjacent land uses, driveways, and cross-streets along the pipeline construction routes in the vicinity of the worksites. Similar to other traffic-related impacts discussed above, the proposed lane closures (and possible temporary full road closures of one city block at a time on two-lane roads) along the pipeline alignments could slow, but would not prevent, vehicle access (including emergency vehicle access). If full road closure were needed, local traffic (by residents of the affected block) and emergency access would be maintained throughout the closure. Pipeline construction would progress at an estimated rate of 200 to 300 feet per day (on average). The range of daily progress takes into account the potential for noncontinuous construction activities. Given the expected pace of work, impaired (i.e., slowed) access to adjacent land uses, driveways, and cross-streets along the pipeline construction routes would be limited to 1 or 2 days at any one location. Pursuant to the Construction Management Plan, construction workers would restore full access and travel or parking lanes during non-construction hours by covering trenches with steel plates or the equivalent whenever feasible. Furthermore, motor vehicle laws require that emergency vehicles (police, fire, and ambulance) be given priority access during lane closures. In addition, and pursuant to the Construction Management Plan, the SFPUC or its contractor would be required to provide notification to all emergency service providers prior to lane closures, and detour signs and flaggers would be in place during the lane closure periods. Therefore, the project's effects on access to adjacent land uses and roadways, including emergency vehicle access, would be less than significant, and no mitigation is required.

Should the Zoo become a recycled water customer in the future, construction of recycled water distribution facilities would be required, and the effect on access to adjacent roadways and land uses would be similar to that described above because the rate of progress and requirements in the Construction Management Plan regarding access would also apply to construction of Zoo components.

Mitigation: None required.

Impact TR-5: Project construction would not substantially impair access to alternative transportation facilities (public transit, bicycle, or pedestrian facilities), although it could temporarily deteriorate the performance of such facilities. (Less than Significant)

Similar to the effects on automobile traffic that would result from pipeline construction activities (see Impact TR-2), temporary closures of travel lanes and sidewalks during project construction would affect public transit riders, bicyclists, and pedestrians. Specific impacts on alternative transportation (public transit, bicycle, or pedestrian facilities) are described below. Effects on bicyclists and pedestrians due to increased traffic volumes during the construction of pipelines, pump stations, and storage facilities would be temporary in nature and of limited magnitude, similar to those described in Impact TR-3 for traffic and transit operations (i.e., less than significant), and no mitigation is required. Should the Zoo become a recycled water customer in the future, construction of recycled water distribution facilities would be required, and the effect on access to and the performance of alternative transportation facilities would be similar to that described below because the rate of progress and requirements in the Construction Management Plan regarding access to and the performance of alternative transportation facilities would also apply to construction of Zoo components.

Transit Impacts

The proposed project would not create demand for additional local or regional transit lines, but construction could cause temporary and intermittent impacts on the operation of local Muni routes through the project area. However, because streets that accommodate public transit lines would remain open to through-traffic during construction activities, the 16X Noriega Express, 18 46th Avenue, 23 Monterey, and 29 Sunset bus lines, as well as the Metro streetcar lines N Judah and L Taraval, would not be substantially delayed during construction. Further, tracks for streetcar lines would not be removed as construction of pipelines would be done with trenchless construction under the tracks. Any disruptions to local bus service along project streets would be temporary in nature, affecting only the immediate area surrounding the construction zone, and lasting approximately 1 to 2 weeks per block (depending on the length of the block). The Golden Gate Park Shuttle would not be affected by project-related lane closures because it operates only on weekends and holidays, and construction work in Golden Gate Park where it operates would occur only on non-holiday weekdays.

Consequently, it is not expected that transit vehicles would need to be rerouted. However, if as part of the project's Construction Management Plan, the SFPUC in coordination with the SFMTA Muni Operations determines that a localized short term bus line rerouting or bus stop relocation in the project area is needed in a particular area due to construction activity, it would not result in a substantial change in Muni service, especially given the expected limited area affected and temporary nature of the change. In addition, a public information plan would be implemented during construction to provide adjacent residents and businesses with regularly updated information regarding project construction activities in their area.

For the reasons described above, impacts related to disruptions in transit service would be less than significant, and no mitigation is required.

Bicycle Impacts

The contractor would be required to maintain bicycle lanes/access during construction to accommodate bicycle traffic or to seek a permit from the SFMTA to address bicycle detours and signage for any lane or road closures. Pipeline installation would temporarily restrict roads to single lanes during construction; e.g., on 34th Avenue (pipeline to Golden Gate Park Reservoir), Cabrillo Street (pipeline to Lincoln Park and pipeline to the Presidio), and Clement Street (pipeline to Lincoln Park). Therefore, access for bicyclists within Class III bicycle facilities on the above-cited roads could be temporarily restricted past the active work zone for pipe installation (which would progress at an estimated rate of 200 to 300 feet per day on average). If deemed necessary by the SFMTA/SFDPW during the TASC review, a measure could be included in the project-specific Construction Management Plan requiring that advance warning signs stating “Share the Road” be posted for the safety of bicyclists traveling within construction areas. Bicyclists would be prohibited from using park roads that could be temporarily closed during construction on Overlook Drive and Middle Drive West (pipeline to Golden Gate Park Reservoir).

In general, construction-related activities such as lane closures and construction vehicle traffic would temporarily increase the potential for motor vehicle and bicycle conflicts, but, with the measures described above, would not substantially interfere with bicycle accessibility through the project area. Therefore, given the temporary and transitory nature of the construction activities, construction-related impacts on bicycle traffic and facilities would be less than significant, and no mitigation is required.

Pedestrian Impacts

The project would be located in the Sunset District, Richmond District, and in areas of Golden Gate Park where pedestrian activity would be expected. Except during special events, there is generally a low (during the week) to moderate (over the weekend) level of pedestrian activity in these areas, consisting of local residents and visiting or recreational walkers or runners.

In general, project construction activities and construction traffic would temporarily increase the potential for motor vehicle and pedestrian conflicts, but would not substantially interfere with the use of pedestrian facilities through the project area for the following reasons. Project-generated traffic (truck trips and worker trips) to and from the project area is estimated at up to 45 vehicles (90 one-way trips) per day (see Impact TR-3). Worker commute trips would occur prior to the morning peak traffic hour, but likely during the evening peak traffic hour, and haul truck trips would be spread over the course of the day. It is reasonable to assume, given the geographic distribution of the proposed worksites, that project trips would be dispersed on different roads.

Project construction could cause obstacles for pedestrian traffic (e.g., construction activities could temporarily and intermittently block pedestrian walkways where a pipeline construction zone crosses a sidewalk area or a recreational path in Golden Gate Park, and pipeline construction could require temporary closure of a trail within Golden Gate Park located north of Lincoln Way/34th Avenue, between Lincoln Way and Middle Drive West, for up to 2 months). In addition, park roadways such Overlook Drive and Middle Drive West might need to be temporarily closed during pipeline construction. However, there are other nearby facilities to accommodate pedestrians (e.g., sidewalks on the opposite side of the street, and different pathways in Golden Gate Park). In addition, in the case of public streets under SFDPW and SFMTA jurisdiction, the SFMTA Blue Book regulations require the implementation of construction safety measures with respect to pedestrians, and for streets under the jurisdiction of the

Recreation and Park Commission, specific treatment to maintain pedestrian circulation and safety would be determined in consultation with the Recreation and Park Department. Therefore, impacts on pedestrian circulation and safety would be less than significant, and no mitigation is required.

Construction of the proposed pipelines, pump stations, and storage facilities would not permanently eliminate or modify alternative transportation corridors or facilities (e.g., bicycle paths or lanes, bus routes/stops, sidewalks); thus, construction impacts related to alternative transportation modes would be less than significant, and no mitigation is required.

Mitigation: None required.

Impact TR-6: Project operations and maintenance activities would cause some increases in traffic volumes on area roadways, but would not substantially alter transportation conditions and would not cause conflicts with alternative travel modes, including vehicles, emergency vehicles, transit, pedestrians, and bicycle traffic. (Less than Significant)

After the construction of the recycled water treatment plant, pumping facilities, and pipeline installation is completed, roadways and adjacent facilities would be returned to their general preconstruction conditions. Operation of the recycled water treatment plant would require approximately four full-time employees. Operation and maintenance of other project facilities would be performed by existing SFPUC employees and would be similar to operation and maintenance activities that already occur at the site. Trucks would deliver chemicals to the recycled water treatment plant at a frequency of approximately 4 deliveries (by 4 trucks) per week at peak/build-out production (i.e., about 1 truck per day). Long-term maintenance could include the removal or repair of pumps, valves, or other equipment. It is also likely that small work crews would perform occasional inspections and repairs of pipelines along the pipeline segments.

These activities would be an extension of existing maintenance practices and would not generate a substantial number of new vehicle trips. Overall, any increases in traffic generated by operation and maintenance of the well facilities would be negligible compared to existing conditions and would not result in a noticeable increase in traffic on adjacent streets. Therefore, operational impacts related to the proposed project would be less than significant, and no mitigation is required.

Should the Zoo become a recycled water customer in the future, construction of recycled water distribution facilities would be required, and operational impacts would be similar to those described above because the post-construction operational requirements would also apply to construction of Zoo components.

Mitigation: None required.

Parking Discussion

The CCSF does not consider parking supply to be part of the permanent physical environment, and therefore does not consider changes in parking conditions to be environmental impacts as defined by CEQA. Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel.

Thus, parking deficits are considered to be social effects rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. The social inconvenience of parking deficits, such as having to search for scarce parking spaces, is not an environmental impact, but may result in secondary physical environmental impacts such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, generally the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles, or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts—to transit service in particular—would be in keeping with San Francisco's "Transit First" policy.

Once completed, the proposed project would not result in any unmet parking demand because it would require no more than four SFPUC workers, an insufficient increase to make any appreciable change in parking availability. During construction, the project would require up to 18 construction workers (three crews of six workers) per day for pipeline construction, and 18 construction workers per day for construction of both the recycled water treatment plant and facilities at the Central Reservoir. Temporary parking demand from construction worker vehicles would occur in proportion to the number of construction workers commuting by automobile, which is assumed in this analysis to be about 18 parking spaces per day during work hours (7:00 a.m. to 5:00 p.m.) at work sites' staging areas. If parking were not available in the proposed staging areas, workers could park in any existing on-street parking spaces in the project vicinity. The recycled water treatment plant and the Central Reservoir site are in areas removed from roads where public on-street parking occurs, and parking demand for the six-worker crews for pipeline construction would cause an insufficient increase in demand to make any appreciable change in parking availability on the streets along the pipeline alignment.

On-street parking capacity along the pipeline alignment would be temporarily reduced due to potential short-term removal of parking spaces in the immediate vicinity of the pipeline work. As a result, area residents might have to find alternate parking spaces in the surrounding area. Generally, this loss of on-street parking on an individual block would occur during the 1 to 2 weeks that construction takes place on that block. As described in the Setting, on-street parking spaces along the pipeline alignment are, in general, not fully-occupied during weekday daytime hours, which is typical of residential streets. Following project construction, on-street parking and off-street parking in the Oceanside WPCP would be restored, with the possible exception of one or two parking spaces at the Oceanside WPCP parking area which would be displaced by the new facility.

As a result of limited number of spaces affected, the general availability of parking in the areas where the work would be done, and the short-term nature of the loss of these parking spaces (with the exception of up to two parking spaces at the Oceanside WPCP), there would be no secondary effects associated with parking removal.

Cumulative Impacts

Impact C-TR: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative traffic increases on local and regional roads. (Less than Significant)

The geographic scope for the analysis of cumulative traffic impacts encompasses the local and regional roadways and highways that would be used by construction workers and vehicles during construction of the recycled water treatment plant, pumping facilities, and pipelines. The project's contribution to a long-term cumulative impacts would not be considerable because the project-related impacts are restricted to the construction period.

Section 5.1.4, Approach to Cumulative Impact Analysis and Cumulative Projects, describes the approach to the cumulative analysis used throughout this EIR and summarizes cumulative projects in the vicinity of the project. Project construction is expected to begin in approximately January 2016 and end in approximately March 2019. Construction of the proposed project facilities would occur in the same vicinity and timeframe as other planned and proposed projects. As a result, construction activities at the recycled water treatment plant, pumping facilities, and pipeline sites would contribute incrementally to cumulative traffic increases when combined with traffic increases from other projects in the area that could be under construction at the same time and thus be utilizing the same roads to access worksites. For example, construction of the San Francisco Groundwater Supply Project, ParkMerced Project, and Pacific Rod and Gun Club Upland Soil Remediation Action Project is expected to coincide with the construction of some proposed project components.

Roadways adjacent to and in the vicinity of the cumulative projects could experience an increase in traffic volumes as well as reduced roadway capacities due to combined construction activities, which could substantially worsen traffic conditions. While the capacity of the roadways and intersections could accommodate the traffic resulting from the detours and additional construction vehicles, the increased traffic volumes, detours, and road and lane restrictions associated with the overlapping and concurrent projects could increase potential traffic hazards for vehicles, bicycles, and pedestrians on affected roadways during construction of each well facility and pipeline route. The combination of construction activities from the cumulative projects, in addition to the project's construction-related impacts identified above, could also result in some temporary and intermittent travel lane or road closures adjacent to the worksites and increased construction traffic on local and regional roadways, all of which indicates the potential for a significant cumulative traffic impact to occur during construction.

However, as discussed under Impact TR-2 above, the SFPUC would be required by local SFDPW regulations and SFPUC adopted policy to implement a project-specific Construction Management Plan,

as well as requirements specified in the SFMTA Blue Book to address potential transportation disruptions during work within city streets. In addition, the Construction Management Plan would require the SFPUC to engage in ongoing coordination with the appropriate jurisdictional agencies through the TASC, or to directly address potential cumulative transportation impacts from projects that could overlap in terms of schedule and/or location). In addition, the SFPUC would require its contractor to coordinate with the San Francisco Recreation and Parks Department to manage construction traffic within Golden Gate Park. Thus, the project's contribution to a significant cumulative traffic impact on local and regional roads would not be cumulatively considerable (less than significant), and no mitigation is required.

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5.4 Noise

This section describes the existing noise environment in the vicinity of the project facility sites, discusses the regulatory framework, analyzes potential noise impacts resulting from implementation of the Westside Recycled Water Project (project), and presents mitigation measures where appropriate.

5.4.1 Setting

Sound Descriptors

Decibel

Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of the sound waves, and the pressure level or energy content of a given sound. The sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound, and the decibel (dB) scale is used to quantify sound intensity. Because sound can vary in intensity by over 1 million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called A-weighting. The A-weighted decibel (dBA) refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA.

In general, a 10-dBA increase in the level of a continuous noise, such as traffic noise, represents a perceived doubling of loudness. Traffic noise increases of less than 3 dBA are barely perceptible to most people, while a 5-dBA increase is readily noticeable.¹ **Table 5.4-1** shows some representative noise sources and their corresponding noise levels in dBA.²

Leq, CNEL, Ldn

Time variations in noise exposure are typically expressed in terms of a steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement. L_{eq} (24) is the steady-state energy level measured over a 24-hour period. Because residents and other sensitive receptors are typically more sensitive to unwanted noise at night, a 24-hour noise descriptor—the community noise equivalent level (CNEL)—is used. The CNEL adds a 5-dBA “penalty” during the evening hours (7:00 p.m. to 10:00 p.m.) and a 10-dBA penalty during the night hours (10:00 p.m. to 7:00 a.m.). Another 24-hour noise descriptor—the day-night noise level (L_{dn})—is similar to the CNEL. While both add a 10-dBA penalty to

¹ California Department of Transportation, Division of Environmental Analysis, “Technical Noise Supplement,” November 2009, pp. 2-48 – 2-49. Available online at: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf.

² U.S. Department of Housing and Urban Development, *The Noise Guidebook*, 1985, Ch. 1. Available online at: http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_16414.pdf.

**TABLE 5.4-1
TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT**

Examples of Common, Easily Recognized Sounds	Decibels (dBA)	Subjective Evaluations
Near Jet Engine	140	Deafening
Threshold of Pain	130	
Threshold of Feeling – Hard Rock Band	120	
Accelerating Motorcycle (at a few feet away)	110	
Loud Horn (at 10 feet away)	100	Very Loud
Noisy Urban Street	90	
Noisy Factory	85 ^a	
School Cafeteria with Untreated Surfaces	80	Loud
Stenographic Room	70 ^b	
Near Freeway Auto Traffic	60 ^b	Moderate
Average Office	50 ^b	
Soft Radio Music in Apartment	40	Faint
Average Residence without Stereo Playing	30	
Average Whisper	20	Very Faint
Rustle of Leaves in Wind	10	
Human Breathing	5	
Threshold of Audibility	0	

^a Continuous exposure above 85 dBA is likely to degrade the hearing of most people.

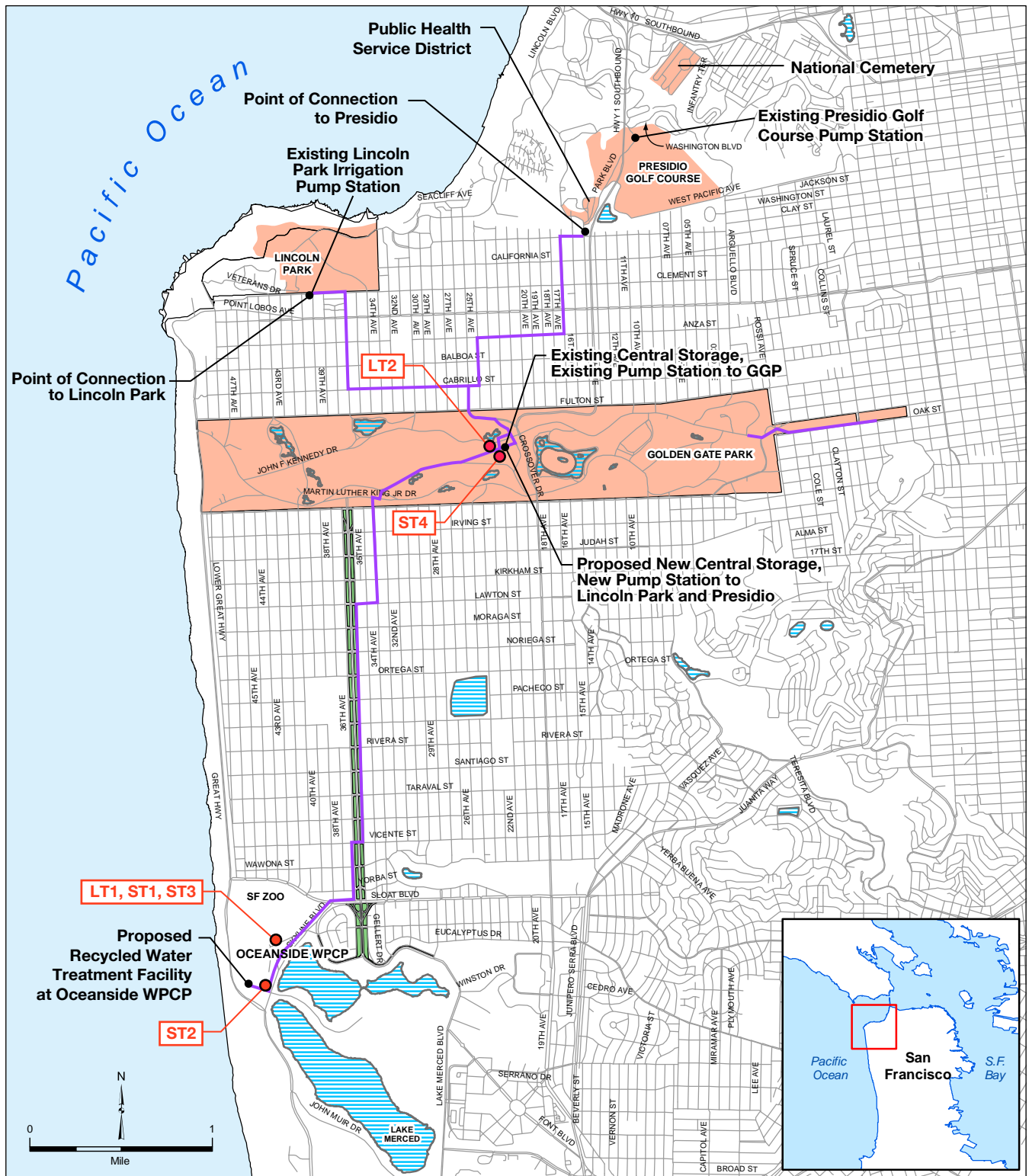
^b Range of speech is 50 to 70 dBA.

SOURCE: U.S. Department of Housing and Urban Development, Office of Community Planning and Development, 1985.

all nighttime noise events between 10:00 p.m. and 7:00 a.m., L_{dn} does not add the evening 5-dBA penalty. In practice, L_{dn} and CNEL usually differ by less than 1 dBA at any given location for transportation noise sources, which is generally an imperceptible difference. The San Francisco Noise Ordinance uses the L_{dn} descriptor. As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak hour is generally within 1 to 2 dB of the L_{dn} at that location.

Existing Noise Environment

The noise environments surrounding the project facility sites are influenced primarily by truck and automobile traffic on local streets. One long-term and three short-term noise level measurements were taken in the vicinity of the Recycled Water Treatment Plant at the Oceanside Water Pollution Control Plant (WPCP) site, while one long-term and one short-term noise level measurement were taken at the Central Reservoir site in Golden Gate Park (see **Figure 5.4-1**). The noise measurement results from these two locations are presented below in **Table 5.4-2**.



- Proposed Pipeline Alignment
- Customer Area Served
- Noise Measurement Locations

SOURCE: SFPUC, 2007; 2010; DOA, 2005; ESRI, 2008; ESA, 2013; CCSF, 2006.

San Francisco Westside Recycled Water Project EIR

Figure 5.4-1
Noise Measurement Locations

**TABLE 5.4-2
SUMMARY OF NOISE MONITORING AT THE PROJECT FACILITY SITES**

Measurement	Location	Time Period	Leq (dBA)	Noise Sources
<i>Recycled Water Treatment Plant at Oceanside WPCP</i>				
Long-term Measurement 1:	Zoo Road across the street from the Janet Pomeroy Center entrance, 50 feet from the center of the roadway	10/23/08–10/25/08 <u>24-hour CNEL Measurements</u> Thursday: 61 dBA Friday: 62 dBA Saturday: 59 dBA	<u>Hourly Leq</u> 52–56	(Long-term noise measurements do not specifically identify noise sources.)
Short-term Measurement 1:	Zoo Road across the street from the Janet Pomeroy Center entrance, 50 feet from the center of the roadway	10/08/08 12:10–12:15 p.m.	<u>5-minute Leq</u> 56 dBA	Traffic on Zoo Road: 61–72 dBA Truck noise on Zoo property
Short-term Measurement 2:	Intersection of Armory Road and Skyline Boulevard, 50 feet from the center of the intersection	10/08/08 12:20–12:25 p.m.	<u>5-minute Leq</u> 64 dBA	Traffic: 66–70 dBA Shooting Range at Lake Merced: 56 dBA
Short-term Measurement 3:	Zoo Road across the street from the Janet Pomeroy Center entrance, 50 feet from the center of the roadway	10/08/08 12:31–12:36 p.m.	<u>5-minute Leq</u> 55 dBA	Monkeys: 48–50 dBA Person: 48 dBA Traffic on Zoo Road: 68 dBA
<i>Central Reservoir Pump Station at Golden Gate Park</i>				
Long-term Measurement 1:	Northwest corner of the Golden Gate Park project site	10/09/08–10/11/08 <u>24-hour CNEL Measurements</u> Thursday: 63 dBA Friday: 63 dBA Saturday: 63 dBA	<u>Hourly Leq</u> 49–68	(Long-term noise measurements do not specifically identify noise sources.)
Short-term Measurement 2:	Nearest park use to the project site, 200 feet from the roadway	10/08/08 12:20–12:25 p.m.	<u>5-minute Leq</u> 56 dBA	Bulldozers and backup beepers at project site Traffic on John F. Kennedy Drive: 48–61 dBA

SOURCE: ESA, *San Francisco Westside Recycled Water Project, Technical Memorandum – Noise*, November 18, 2008.

The noise environment surrounding the proposed recycled water treatment plant site at the Oceanside WPCP is primarily influenced by traffic noise from the Great Highway and Skyline Boulevard, and noise generated at the existing Oceanside WPCP. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity.

The noise environment surrounding the Central Reservoir pump station site in Golden Gate Park is primarily influenced by current composting and maintenance operations within the project site as well as traffic noise on John F. Kennedy Drive, Highway 1, Transverse Drive, and Middle Drive. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity.

Sensitive Receptors

People in residences, schools, libraries, churches, hospitals, nursing homes, and auditoriums are generally more sensitive to noise than those at commercial and industrial establishments. Consequently, the noise standards for such sensitive land uses are more stringent than those for less sensitive uses.

Sensitive receptors in the vicinity of project components include residences, schools, hospitals, and religious facilities. In general, residences and schools are among the land uses considered to be the most sensitive to noise. No hospitals are located within 1,000 feet of project facilities. The closest residential uses are located approximately 1,900 feet from the proposed recycled water treatment plant at the existing Oceanside WPCP (3500 Great Highway), 1,000 feet from proposed facilities at the Central Reservoir site in Golden Gate Park, and 20 to 25 feet from the proposed distribution pipeline alignments that extend through the Sunset and Richmond Districts. No schools are located within 1,000 feet of the Oceanside WPCP or Central Reservoir sites, but the following schools are located within 1,000 feet of a project pipeline alignment: Pomeroy Recreation and Rehabilitation Center (207 Skyline Boulevard), 75 feet from the pipeline alignment in Skyline Boulevard (State Route 35); Robert Louis Stevenson Elementary School (2051 34th Avenue), 350 feet from the pipeline alignment; St. Gabriel Elementary School (2550 41st Avenue), 1,000 feet northwest of the pipeline alignment; St. Ignatius College Preparatory School (2001 37th Avenue), 350 feet from the pipeline alignment on 38th Avenue; Lawton Elementary School (1570 31st Avenue), 350 feet from the pipeline alignment on 34th Avenue; Star Light Christian Preschool (750 26th Avenue), 300 feet from the pipeline alignment on Cabrillo Street; Shalom School (862 28th Avenue), 400 feet south of the pipeline alignment on Cabrillo Street; Lafayette Elementary School (4545 Anza Street), adjacent to the pipeline alignment on 37th Avenue; and Cabrillo Elementary School (735 24th Avenue), adjacent to the pipeline alignment on 24th Avenue.

Active parks, recreation centers, and playgrounds are not as sensitive to noise as residences, schools, hospitals, or convalescent care facilities, because background noise levels at active parks and recreation centers and at school playgrounds tend to be elevated. However, users of natural recreation areas may value an increased degree of quiet for passive recreational uses. Wildlife, such as nesting birds, may also be sensitive to changes in the noise environment (Appendix A, Impact BI-1, discusses the effects of construction disturbance on wildlife). The San Francisco Zoo is the nearest land use in the vicinity of the recycled water treatment plant site, and could be affected by changes in noise levels. Zoo exhibits are located approximately 1,100 feet to the north of Armory Road, on top of a hill that has no direct line of sight to the project site. Other uses in the vicinity of the project site include Lake Merced and Harding Park, located approximately 1,100 feet to the east; Harding Park Golf Course, located approximately 2,800 feet to the southeast; and the southern section of Ocean Beach, located approximately 200 feet to the west (across Great Highway). The nearest recreational receptor in the vicinity of the existing Central Reservoir site in Golden Gate Park is a park use at an open lawn area located approximately 360 feet to the northeast of the site.

5.4.2 Regulatory Framework

Federal Regulations

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Title 40 of the Code of Federal Regulations, Part 205, Subpart B. The federal truck passby noise standard is 80 dBA at 50 feet from the vehicle pathway centerline, under specified test procedures. These controls are implemented through regulatory controls on truck manufacturers.

State Regulations

There are no state standards for noise that apply to this project.

Local Regulations

City of San Francisco Noise Ordinance

Sections 2907(a) and (b) of the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code) state that construction equipment shall not emit noise in excess of 80 dBA when measured at a distance of 100 feet, or at an equivalent sound level at some other convenient distance. Under the San Francisco Public Utilities Commission (SFPUC) Standard Construction Measures, the SFPUC requires its contractors to comply with local noise ordinances to the extent feasible. For trucks, this noise limit is more stringent than the federal noise standard. This noise level limit does not apply to impact tools and equipment that contain manufacturer-recommended noise-attenuating intake and exhaust mufflers approved by the Director of Public Works or Director of Building Inspection. This noise level limit also does not apply to pavement breakers and jackhammers, provided that such equipment is fitted with manufacturer-recommended acoustically attenuating shields or shrouds approved by the Director of Public Works or Director of Building Inspection.

Section 2908 of the San Francisco Noise Ordinance states that nighttime construction noise is limited to 5 dBA above the ambient noise level at the nearest property between the hours of 8:00 p.m. of any day and 7:00 a.m. of the following day, unless a special permit has been applied for and granted by the Director of Public Works or Director of Building Inspection.

5.4.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this Environmental Impact Report (EIR), the project would have a significant noise effect if it were to:

- Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Approach to Analysis

Impacts addressed in this analysis relate to the project's construction (short-term) noise impacts. The potential for such impacts was assessed by considering: (1) the proximity of project-related noise sources to sensitive receptors; (2) typical noise levels associated with construction equipment; (3) the potential for construction noise levels to exceed the noise limit specified in the City's noise ordinance; (4) the duration that sensitive receptors would be affected; and (5) whether project construction activities would occur outside the construction time limits of the City's noise ordinance.

Because no nighttime construction (8:00 p.m. to 7:00 a.m.) would occur (see Section 3.4.2, Construction Schedule), project construction would not take place outside the construction time limits of the City's ordinance and would not interfere with nighttime activities.

To address the CEQA significance criteria for noise, as outlined above, a "substantial" noise increase is defined as an increase in noise to a level that causes interference with daily activities. Generally, compliance with the San Francisco Noise Ordinance, which is required by law and was established to prevent or reduce construction-related nuisance noise, is considered sufficient to reduce construction noise effects from any of the proposed project treatment, storage, or pipeline facilities to a less-than-significant level.

Construction activities would be required to comply with the San Francisco Noise Ordinance, which limits noise from any individual piece of construction equipment, except for impact tools approved by the Department of Public Works, to 80 dBA at 100 feet. The impact analysis compares project construction activities to these standards to determine if they would result in the exposure of persons to or generate noise levels in excess of the standards.

Impact Summary

Table 5.4-3 summarizes the project's noise impacts and significance determinations. Impacts are numbered following the sequence from the Initial Study (Appendix A), which addressed the project's less-than-significant noise impacts associated with vibration and permanent increases in ambient noise levels under Impacts NO-1 and NO-2.

**TABLE 5.4-3
SUMMARY OF IMPACTS – NOISE**

Impact	Significance Determination
Impact NO-3: The project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code).	LS
Impact C-NO: The proposed project would not have significant cumulative noise impacts.	LS

NOTE:

LS = Less-than-Significant impact, no mitigation required.

Impact Analysis

Impact NO-3: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code). (Less than Significant)

Article 29 of the San Francisco Police Code, revised November 25, 2008, regulates construction-related noise. Section 2907 limits noise levels from individual pieces of equipment to 80 dBA at 100 feet (during daytime hours of 7:00 a.m. to 8:00 p.m.), which is equivalent to 86 dBA at 50 feet. Impact tools such as

jackhammers are exempt from this noise limit if they are equipped with intake and exhaust mufflers approved by the Director of Public Works or Director of Building Inspection. Section 2908 also allows for construction work during nighttime hours (defined by the code as 8:00 p.m. to 7:00 a.m.); however, construction-related noise cannot exceed the ambient noise level by 5 dBA at the nearest property line, unless a special permit is granted by the Director of Public Works or Director of Building Inspection.

Construction activities would be conducted primarily during daytime hours (7:00 a.m. to 5:00 p.m.³), five days a week (Monday through Friday, except for legal holidays). With project implementation, noise levels related to construction within and adjacent to project facility sites and pipeline alignments would vary depending on the construction phase, types and number of construction equipment in use, and duration that various pieces of construction equipment are used. Construction activities would generate noise at each project facility site as well as on roadways accessing the site. Construction-related material haul trips would raise ambient noise levels along haul routes.

Table 5.4-4 presents typical noise levels for the construction equipment that would result in the highest noise levels. The closest noise-sensitive residential receptors are approximately 1,900 feet from the recycled water treatment plant, approximately 1,000 feet from Central Reservoir pump station site, and approximately 20 to 25 feet from new pipeline construction. Wildlife receptors (i.e., nesting birds) could be subject to construction-related noise increases (Appendix A, Impact BI-1, discusses the effects of construction disturbance on wildlife).

As indicated in Table 5.4-4, the noise level associated with, for example, jackhammers or concrete saws, is 82 to 84 dBA at 100 feet. Impact tools such as jackhammers are exempt from the Police Code's equivalent daytime ordinance noise limit of 80 dBA at 100 feet if they are equipped with intake and exhaust mufflers approved by the Director of Public Works or Director of Building Inspection. Noise-control measures will be required on any other equipment exceeding the limit such as concrete saws at project construction sites. Such measures could include: intake silencers, ducts, and acoustically attenuating shields, barriers or shrouds. With required conformance to ordinance noise level and time limits, no conflicts with local ordinances are expected to occur during project construction, and potential construction-related noise impacts due to the exposure of persons to substantial noise levels in excess of standards established in the Noise Ordinance would therefore be *less than significant* and no mitigation would be required.

As to noise exposure to residences and other sensitive receptors, pipeline construction would involve equipment operation at distances as close as 20 to 25 feet from noise-sensitive residential receptors, which is much closer than at the Oceanside WPCP and Central Reservoir sites. However, despite this closer proximity, pipeline construction activities would only take place in the vicinity of each sensitive receptor for a short time period (approximately 2 weeks), since pipeline installation would progress at an average rate of approximately 100 to 300 feet per day (on average) along residential streets. Therefore, each residential receptor would be subject to maximum noise from operation of a concrete saw or jackhammer for a short time period, with noise levels decreasing as this activity moves further away along the pipeline alignment. Further, construction-related noise impacts during installation of pipelines, even with

³ Truck and worker trips at project facility sites would normally end at 4:30 p.m., although they are allowed to continue until the end of daytime hours (8:00 p.m.). However, trucks leaving the sites at 4:30 p.m. would not reach their destinations until about 5:00 p.m.

**TABLE 5.4-4
TYPICAL NOISE LEVELS FROM
CONSTRUCTION ACTIVITIES AND CONSTRUCTION EQUIPMENT**

Construction Equipment	Noise Level (dBA, Leq at 50 feet)	Noise Level (dBA, Leq at 100 feet)
Jackhammer (Pavement Breaker)	88	82
Concrete Saw	90	84
Loader	79	73
Dozer	82	76
Excavator	81	75
Grader	85	79
Compactor	83	77
Dump Truck	76	70
Flatbed Truck	74	68
Concrete Truck	81	75
Forklift (gas-powered)	83	77
Street Sweeper (vacuum)	82	76
Generator	81	75
Pneumatic Sheeting Driver	85	79
Compressor	78	72
Mixer (Batch Plant)	83	77
Roller	80	74
Crane	81	75
Auger Drill Rig ^a	84	78
Paver	77	71
Asphalt Milling Machine (Scarifier)	83	76
San Francisco Noise Ordinance Limit	86	80

^a Exempt from the ordinance requirement of 80 dBA at 100 feet.

SOURCES: U.S. Department of Transportation, Federal Highway Administration, 9.0 Construction Equipment Noise Levels and Ranges, Table 9.1, RCNM Default Noise Emission Reference Levels and Usage Factors, *Construction Noise Handbook*, Updated July 2011. Available online at http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm, Accessed October 3, 2014; U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

operation of noisier types of construction equipment, would be required to comply with ordinance noise limits. For these reasons, the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and the impact would be *less than significant* and no mitigation is required.

Construction-related truck trips generated during construction of project facilities would be required to travel on designated truck routes, minimizing truck traffic in residential areas. Therefore, use of City designated haul routes in the required Construction Management Plan, which minimizes use of local roadways and residential streets to the extent feasible (see Impact TR-1 for more discussion), advanced public notification, and provision of contact information to file noise complaints (see Chapter 3, Project Description, Section 3.4.2 under Construction Schedule) would further reduce potential construction-related noise impacts.

Should the San Francisco Zoo be included as a recycled water customer in the future, construction of the required distribution pipeline would result in similar impacts as described above for other pipelines. The closest affected land use to this pipeline would be Zoo uses. While construction-related noise increases could be disturbing to the zoo animals, as would be the case with residential noise exposures, zoo animals would be subject to maximum noise from operation of a concrete saw or jackhammer for a short time period, with noise levels decreasing as this activity moves further away along the pipeline alignment. Further, construction-related noise impacts during installation of pipelines, even with operation of noisier types of construction equipment, would be controlled to comply with ordinance noise limits. Given the short duration of pipeline construction combined with controls on equipment required by the noise ordinance, construction-related noise increases on Zoo uses would also be *less than significant*, and no mitigation is required.

Project implementation would also result in the temporary relocation during project construction at the Central Reservoir of the San Francisco Recreation and Park Department's wood waste storage, chipping/mulch creation operations, and other parking maintenance activities from their current location at the Central Reservoir site to the West End Dump site located near the South Windmill in Golden Gate Park. All of the Department's green waste processing was previously done at this site and project implementation would result in the temporary return of this former activity at the West End Dump site. The closest residential uses to this new location are approximately 600 feet to the south (across Lincoln Way). Chippers typically generate noise levels of 69 to 79 dBA (L_{eq}) at 100 feet,⁴ and thus would be expected to meet with the Police Code's equivalent daytime ordinance noise limit of 80 dBA at 100 feet. Therefore, temporary relocation of this activity to the West End Dump site in the South Windmill vicinity would result in a temporary noise increase that would be *less than significant*, and no mitigation is required.

Mitigation: None required.

Cumulative Impacts

Impact C-NO: The proposed project would not have significant cumulative noise impacts. (Less than Significant)

The geographic scope for potential cumulative noise impacts encompasses the project site, its immediate vicinity, and areas next to haul routes.

Cumulative noise increases could occur if there are concurrent construction activities in the site vicinity or if there are cumulative truck noise increases along haul routes. Of the cumulative projects listed in Section 5.1.4, Approach to Cumulative Impact Analysis and Cumulative Projects, none are located immediately adjacent to facility sites, except for upgrades at the Oceanside WPCP and the Central

⁴ Wilson, Ihrig & Associates, Inc., *Crystal Springs Pipeline No. 2, Noise and Vibration Study, Impacts and Mitigation, Final Technical Memo*, September 24, 2009, Adapted from O'Connor, W.R., "Tree Worker Safety," *Journal of Arboriculture*, vol. 15(1), January 1989, p. 45.

Reservoir well facility, which is located west of the project area. Construction of the well facility is expected to be completed in spring 2016, before project construction. Construction activities at the Oceanside WPCP are not in the vicinity of sensitive receptors. Thus, cumulative construction effects are not expected.

There are several cumulative projects in the general project vicinity, including the San Francisco Groundwater Supply Project, Vista Grande Drainage Basin Improvement Project, Regional Groundwater Storage and Recovery Project, and ParkMerced Project, and other projects that are primarily in the Lake Merced vicinity. These projects could generate construction-related traffic on local access routes. While construction of some of these projects is expected to occur before the proposed project construction, the schedules are undetermined and some could coincide with proposed project construction. In this event, cumulative traffic noise increases could occur on local truck routes. However, truck trips associated with all construction projects would be required to travel on designated truck routes, minimizing truck traffic in residential areas. Therefore, the contribution of the project to cumulative noise increases in the site vicinity or cumulative truck noise increases along haul routes from concurrent construction activities would not be considerable, therefore this impact would be less than significant and no mitigation is required.

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5.5 Air Quality

This section describes the existing air quality conditions in the area of the Westside Recycled Water Project (project), discusses the regulatory framework for air quality management, and addresses the air quality impacts that could result from implementation of the project, including increases in criteria air pollutants.

5.5.1 Setting

Overview

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (SFBAAB), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa Counties and portions of Sonoma and Solano Counties. The BAAQMD is responsible for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAAB and to develop and implement strategies to attain the applicable federal and state standards. The CAA and the CCAA require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2010 Clean Air Plan*, was adopted by the BAAQMD on September 15, 2010. The *2010 Clean Air Plan* updates the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases in a single, integrated plan; and establish emission control measures to be adopted or implemented. The 2010 Clean Air Plan contains the following primary goals:

- Attain air quality standards;
- Reduce population exposure and protect public health in the San Francisco Bay Area; and
- Reduce greenhouse gas emissions and protect the climate.

The *2010 Clean Air Plan* represents the most current applicable air quality plan for the SFBAAB. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of air quality plans.

Criteria Air Pollutants

In accordance with the state and federal Clean Air Acts, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. These air pollutants are termed criteria air pollutants because they are regulated by specific public health- and welfare-based criteria as the basis for setting permissible levels.

The BAAQMD operates a regional monitoring network that measures the ambient concentrations of these six criteria air pollutants within the SFBAAB. Existing and probable future air quality in the project area

can best be inferred by examining the BAAQMD's ambient air quality measurements taken at the San Francisco monitoring station over the past several years. The BAAQMD's air quality monitoring station at 16th and Arkansas Streets (10 Arkansas Street) in San Francisco's lower Potrero Hill area measures ozone, CO, NO₂, SO₂, PM₁₀, and PM_{2.5}. This location is approximately 2 miles northwest of the easternmost pipeline alignment (Panhandle vicinity) and 5.5 miles southwest of the Oceanside Water Pollution Control Plant (WPCP) site. **Table 5.5-1** presents a 7-year summary of monitoring data (2007–2013) and compares measured maximum pollutant concentrations against the most stringent applicable ambient air quality standards (both state and federal standards are described below in Section 5.5.2).

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). The main sources of NO_x and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are the single largest source of ozone precursors in the Bay Area. Ozone is considered a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process, resulting in the regional dispersion of ozone. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.¹ Table 5.5-1 shows that, according to published data, the more stringent applicable standards have not been exceeded during the past seven years.

Carbon Monoxide

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, dizziness, fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal. Table 5.5-1 shows that no exceedance of CO standards were recorded at the San Francisco monitoring station between 2007 and 2013. Maximum 8-hour CO levels average less than 35 percent of the allowable 8-hour standard.

Suspended and Inhalable Particulate Matter

PM is a class of air pollutants that consists of solid and liquid airborne particles, measured in two size ranges: PM₁₀, which refers to suspended particles less than 10 microns in diameter, and PM_{2.5}, which refers to fine suspended particles less than 2.5 microns in diameter. Motor vehicles generate about half of the PM in the Bay Area, through tailpipe emissions as well as brake pad and tire wear. Another significant source of PM_{2.5} is wood burning in fireplaces and stoves. Extended exposure to PM_{2.5} can increase the risk of chronic respiratory disease, and PM_{2.5} poses an increased health risk because it contains substances that are particularly harmful to human health and because the fine particles can be inhaled and deposited into the deepest parts of the human lung.

¹ BAAQMD, *California Environmental Quality Act (CEQA) Air Quality Guidelines*, Updated May 2011.

**TABLE 5.5-1
SAN FRANCISCO AMBIENT AIR QUALITY MONITORING SUMMARY (2004–2010)**

Pollutant	Most Stringent Applicable Standard	Number of Days Standards were Exceeded and Maximum Concentrations Measured						
		2007	2008	2009	2010	2011	2012	2013
Ozone								
Maximum 1-hour concentration (ppm) ^b		0.060	0.082	0.072	0.079	0.070	0.069	0.069
Days 1-hour standard exceeded	>0.09 ppm ^a	0	0	0	0	0	0	0
Maximum 8-hour concentration (ppm) ^a		0.053	0.066	0.057	0.051	0.049	0.048	0.060
Days 8-hour standard exceeded	>0.07 ppm ^a	0	0	0	0	0	0	0
Days 8-hour standard exceeded	>0.075 ppm ^b	0	0	0	0	0	0	0
Carbon Monoxide (CO)								
Maximum 8-hour concentration (ppm)		1.6	2.3	2.9	1.4	1.2	1.2	-
Days 8-hour standards exceeded	>9 ppm ^{a,b}	0	0	0	0	0	0	0
Nitrogen Dioxide (NO₂)								
Maximum 1-hour concentration (ppm)		0.069	0.062	0.059	0.093	0.093	0.124	0.073
Days 1-hour standard exceeded	>0.18 ppm ^{a,c}	0	0	0	0	0	0	0
Sulfur Dioxide (SO₂)								
Maximum 24-hour concentration (ppm)		0.006	0.004	-	-	-	-	-
Days 24-hour standard exceeded	>0.04 ppm ^a	0	0	-	-	-	-	-
Suspended Particulates (PM₁₀)								
Maximum 24-hour concentration (µg/m ³)		70	41	36	40	46	51	44
Days 24-hour standard exceeded ^d	>50 µg/m ³ ^a	2	0	0	0	0	1	0
Days 24-hour standard exceeded ^d	>150 µg/m ³ ^b	0	0	0	0	0	0	0
Suspended Fine Particulates (PM_{2.5})								
Maximum 24-hour concentration (µg/m ³) ^e		45.2	39.2/ 29.4	49.8/ 35.6	45.3	47.5	35.7	48.5
Days 24-hour standard exceeded	>35 µg/m ³ ^d	5	0	1	3	2	1	2
Annual Average (µg/m ³) ^b	12 µg/m ³ ^b	8.6	-	9.6	10.5	9.5	8.2	10.1
Annual Average (µg/m ³) ^a	12 µg/m ³ ^a	8.9	11.7	-	10.6	9.5	-	-
Annual standard exceeded?	>12 µg/m ³ ^a	No	No	No	No	No	No	No

NOTES:

"-" indicates that data are not available; ppm = parts per million; µg/m³ = micrograms per cubic meter.

^a State standard, not to be exceeded.

^b Federal standard, not to be exceeded.

^c In 2010, a new federal 1-hour standard of 0.10 ppm was established for NO₂. The U.S. Environmental Protection Agency (EPA) has published attainment designations for this standard and the SFBAAB is classified as being in "Attainment."

^d Because PM₁₀ is only sampled every sixth day, the actual number of days over the standard can be estimated to be six times the number shown.

^e Maximum concentrations represent both the State and Federal 24-hour average highs where one value is presented and State 24-hour average high/ Federal 24-hour average high in years when they varied.

SOURCES: California Air Resources Board (CARB), "2007 to 2013 ADAM Air Quality Data Statistics." Available online at <http://www.arb.ca.gov/adam/>, Accessed December 16, 2014; CARB, *Ambient Air Quality Standards*, June 4, 2013. Available online at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

According to the California Air Resources Board (CARB), studies in the United States and elsewhere “have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks,” and studies of children’s health in California have demonstrated that particle pollution “may significantly reduce lung function growth in children.” CARB also reports that statewide attainment of PM standards could prevent thousands of premature deaths, lower hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and prevent hundreds of thousands of episodes of respiratory illness in California.²

Among the regulated criteria pollutants, PM appears to represent a serious ongoing health hazard. As long ago as 1999, the BAAQMD California Environmental Quality Act (CEQA) Guidelines reported studies showing that elevated PM levels contribute to the death of approximately 200 to 500 people per year in the Bay Area. High levels of PM have also been known to exacerbate chronic respiratory ailments, such as bronchitis and asthma, and have been associated with increased emergency room visits and hospital admissions.

Table 5.5-1 shows that the state 24-hour PM₁₀ standard has been exceeded in San Francisco – three times between 2007 and 2013. The less stringent federal 24-hour PM₁₀ standard, however, was not exceeded during the seven-year study period.

PM_{2.5} is of particular concern because epidemiologic studies have demonstrated that people who live near freeways and high-traffic roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections and decreased pulmonary function and lung development in children.³

Nitrogen Dioxide

NO₂ is a reddish-brown gas that is a byproduct of combustion processes. Mobile sources (motor vehicles and other transportation sources) and industrial operations are the main sources of NO_x, which include NO₂. Aside from contributing to ozone formation, NO₂ can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. Table 5.5-1 shows that the current standard for NO₂ is being met in the Bay Area.

The U.S. Environmental Protection Agency (U.S. EPA) has also established requirements for a new monitoring network to measure NO₂ concentrations near major roadways in urban areas with a population of 500,000 or more. Sixteen new near-roadway monitoring sites will be required in California, three of which will be in the Bay Area. These monitors are required to be deployed by January 2013. The new monitoring data may result in a need to change area designations. CARB will revise the area designation recommendations, as appropriate, once the new monitoring data become available.

² California Air Resources Board (CARB), “Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution,” January 2004. Available online at: http://www.powerworks.com/Documents/ozone_air_pollutants.pdf. This document is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103, and is available for public review as part of the project file, in Case File No. 2008.0762E.

³ San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effect from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008, p. 7.

Sulfur Dioxide

SO₂ is a colorless acidic gas with a strong odor. It is produced by combustion of sulfur-containing fuels such as coal, diesel, and oil. SO₂ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. Table 5.5-1 shows that the state standard for SO₂ is being met in the SFBAAB, and pollutant trends suggest that the SFBAAB (San Francisco Bay Area Air Basin) will continue to meet this standard for the foreseeable future.

In 2010, the U.S. EPA established a new 1-hour SO₂ national ambient air quality standard of 0.75 part per million (ppm), effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The U.S. EPA also revoked both the existing 0.030-ppm annual and 0.14-ppm 24-hour SO₂ national standards effective 1 year after the U.S. EPA's initial designation of the new 1-hour SO₂ national standard. As shown in Table 5.5-1, the 24-hour standard has not been exceeded during the past seven years.

Lead

Leaded gasoline (phased out in the United States at the beginning of 1973), lead paint (on older houses and on cars), smelters (metal refineries), and the manufacturing of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which puts children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated from use. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the U.S. EPA strengthened the national ambient air quality standard for lead by lowering it from 1.5 microgram per cubic meter (µg/m³) to 0.15 µg/m³. The U.S. EPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase of 76 monitors nationally.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as a group of air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Human health effects of TACs include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another TAC.

TACs do not have ambient air quality standards but are regulated by the BAAQMD using a risk-based approach, that if necessary requires preparation of a health risk assessment, to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.⁴

⁴ In general, a health risk assessment is required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk; the applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, calculating the increased risk of cancer because of exposure to one or more TACs.

In addition to monitoring criteria air pollutants, both the BAAQMD and CARB operate TAC monitoring networks in the San Francisco Bay Area. These stations measure 10 to 15 TACs, depending on the specific station. The TACs selected for monitoring are those that have traditionally been found in the highest concentrations in ambient air, and therefore tend to produce the most significant risk. The BAAQMD operates an ambient TAC monitoring station at its Arkansas Street facility in San Francisco's lower Potrero Hill area. **Table 5.5-2** presents the annual average ambient concentrations of various carcinogenic TACs measured at the Arkansas Street station and the estimated cancer risks from lifetime (70 years) exposure to these substances. When TAC measurements at this station are compared to ambient concentrations of various TACs for the Bay Area as a whole, the cancer risks associated with mean TAC concentrations in San Francisco are similar to those for the Bay Area as a whole. Therefore, the estimated average lifetime cancer risk resulting from exposure to TAC concentrations monitored at the San Francisco station does not appear to be any greater than for the region.

**TABLE 5.5-2
CARCINOGENIC TOXIC AIR CONTAMINANTS – ANNUAL AVERAGE AMBIENT CONCENTRATIONS**

Substance	Concentration	Cancer Risk Per Million ^a
<i>Gaseous TACs</i>		
	<i>(ppb)</i>	
Acetaldehyde	0.69	3
Benzene	0.23	21
1,3-Butadiene	0.048	18
Para-Dichlorobenzene	0.15	10
Methyl tertiary-Butyl Ether (MTBE)	0.26	0.2
Ethylene Dibromide	0.006	3
Formaldehyde	1.31	10
Perchloroethylene	0.022	0.9
Methylene Chloride	0.14	0.5
Carbon Tetrachloride	0.086	23
Chloroform	0.026	0.7
Trichloroethylene	0.01	0.1
<i>Particulate TACs</i>		
	<i>(ng/m³)</i>	
Chromium (Hexavalent)	0.07	11

NOTES: ppb=parts per billion; ng/m³ = nanograms per cubic meter

All values are from BAAQMD 2010 monitoring data from the Arkansas Street station, except for para-dichlorobenzene (2006), ethylene dibromide (1992), and MTBE (2003).

^a Cancer risks were estimated by applying published unit risk values to the measured concentrations.

SOURCE: CARB, *Ambient Air Toxics Summary*, 2010. Available online at <http://www.arb.ca.gov/adam/toxics/sitesubstance.html>, Accessed December 16, 2014.

Significant sources of TACs in the environment include both stationary sources (e.g., gas stations, dry cleaners, and buildings with boilers and/or emergency generators) and mobile sources (particularly diesel-powered vehicles, including trains, buses, and trucks on high-traffic roadways). CARB has determined that the 10 compounds posing the greatest known health risk in California, based primarily on ambient air quality data, are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent

chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Roadway-Related Air Pollutants

Motor vehicles are responsible for a large share of air pollution, especially in California. Vehicle tailpipe emissions contain diverse forms of particles and gases, and also contribute to particulates by generating road dust and through tire wear. Epidemiologic studies have demonstrated that people living in proximity to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children. Air pollution monitoring done in conjunction with epidemiological studies has confirmed that roadway-related health effects vary with modeled exposure to PM and NO₂. In traffic-related studies, the additional noncancer health risk attributable to roadway proximity was seen within 1,000 feet of the roadway and was strongest within 300 feet. As a result, CARB recommends that new sensitive land uses not be located within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day.⁵ In 2008, the City of San Francisco adopted amendments to the Health Code (discussed under “Regulatory Framework” below), requiring new residential projects near high-volume roadways to be screened for exposure hazards and, where indicated, to conduct an analysis of exposure and to mitigate hazards through design and ventilation.

Diesel Particulate Matter

CARB identified DPM as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans.⁶ The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to diesel particles, which are very small and can penetrate deeply into the lungs. Mobile sources such as trucks, buses, and, to a much lesser extent, automobiles are some of the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to inventory and assess air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the “Air Pollutant Exposure Zone,” were identified based on two health-protective criteria: (1) excess cancer risk from the contribution of emissions from all modeled sources greater than 100 per one million population, and/or (2) cumulative PM_{2.5} concentrations greater than 10 micrograms per cubic meter (µg/m³). CARB estimated the average Bay Area cancer risk from DPM, based on a population-weighted average ambient diesel particulate concentration, at about 480 in 1 million as of 2000. The risk from DPM has declined from 750 in 1 million in 1990 to 570 in 1 million in 1995. CARB

⁵ CARB, California Environmental Protection Agency (CEPA), *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, pp. 8-11. Available online at: <http://www.arb.ca.gov/ch/handbook.pdf>. This recommendation is put forth to minimize potential noncancer health effects of exposure to pollutants known to increase incidence of asthma and other respiratory ailments, particularly fine particulates, as well as cancer risk from exposure to DPM and chemicals from automobile exhaust.

⁶ CARB, “The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines,” Fact Sheet, October 1998. Available online at <http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>.

estimated the average statewide cancer risk from DPM continued its decline from 540 in 1 million in 2000 to 450 in 1 million in 2010.⁷

Recent air pollution studies have shown an association between respiratory and other noncancer health effects and proximity to high-traffic roadways. CARB community health risk assessments and regulatory programs have produced air quality information about certain types of facilities for consideration by local authorities when siting new residences, schools, day care centers, parks and playgrounds, and medical facilities (i.e., sensitive land uses, or “sensitive receptors”). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the noncancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.⁸

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Subsequent CARB regulations apply to new trucks and to diesel fuel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same soot exhaust emissions as one truck built in 1988.⁹ Despite notable emission reductions, CARB recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses. CARB notes that these recommendations are advisory and should not be interpreted as defined “buffer zones.” CARB acknowledges that land use agencies must balance other considerations, including housing and transportation needs, the benefits of urban infill, community economic development priorities, and other quality-of-life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, CARB’s position is that infill development; mixed-use, higher-density, transit-oriented development; and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level.¹⁰

Sensitive Receptors

Air quality does not affect every individual in the population in the same way, and some groups are more susceptible to adverse health effects than others. Population subgroups sensitive to the health effects of air pollutants include the elderly and the young; population subgroups with higher rates of respiratory disease, such as asthma and chronic obstructive pulmonary disease; and populations with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. Land uses such as schools, children’s day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Parks and

⁷ CARB, Table 5-44 and p. 5-44, *California Almanac of Emissions and Air Quality - 2009 Edition*. Available online at <http://www.arb.ca.gov/aqd/almanac/almanac.htm>. This calculated cancer risk values from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is more than 40 percent (based on a sampling of 17 regions nationwide), or greater than 400,000 in one million, according to the National Cancer Institute.

⁸ CARB, CEPA, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available online at <http://www.arb.ca.gov/ch/handbook.pdf>. p. ES-1.

⁹ Pollution Engineering, “New Clean Diesel Fuel Rules Start,” July 2, 2006. Available online at <http://www.pollutionengineering.com/articles/print/85480-new-clean-diesel-fuel-rules-start/>, Accessed November 14, 2014.

¹⁰ CARB, CEPA, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available online at <http://www.arb.ca.gov/ch/handbook.pdf>. p. ES-2.

playgrounds are considered moderately sensitive to poor air quality because persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality; however, exposure times are generally far shorter in parks and playgrounds than in residential locations and schools, for example, which typically reduces overall exposure to pollutants. Residential areas are considered more sensitive to air quality conditions compared to commercial and industrial areas because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions.¹¹

Workers are not considered sensitive receptors because all employers must follow regulations set out by the Occupational Safety and Health Administration to ensure the health and well-being of their employees.¹²

In determining whether sources of emissions may affect nearby sensitive receptors, a summary of research findings in CARB's *Land Use Compatibility Handbook*¹³ suggests that air pollutants from high-volume roadways are substantially reduced or can even be indistinguishable from upwind background concentrations at a distance of 1,000 feet downwind from sources such as freeways and large distribution centers. Given the scientific data on dispersion of TACs from a source, the BAAQMD recommends assessing impacts of sources of TACs on nearby receptors within a 1,000-foot radius. This radius is also consistent with CARB's *Land Use Compatibility Handbook* and California Health and Safety Code Section 42301.6 (Notice for Possible Source Near School).

There are no hospitals located within 1,000 feet of project facilities. The closest residential uses are located approximately 1,900 feet from the proposed recycled water treatment plant at the existing San Francisco Public Utilities Commission (SFPUC) Oceanside WPCP (3500 Great Highway), 1,000 feet from proposed facilities at the Central Reservoir site in Golden Gate Park, and 20 to 25 feet from the proposed distribution pipeline alignments that extend through the Sunset and Richmond Districts.

There are no schools located within 1,000 feet of the Oceanside WPCP or Central Reservoir sites, but the following schools are located within 1,000 feet of a project pipeline alignment: Pomeroy Recreation and Rehabilitation Center¹⁴ (207 Skyline Boulevard), 75 feet from the proposed pipeline alignment in Skyline Boulevard (State Route 35); Robert Louis Stevenson Elementary School (2051 34th Avenue), 350 feet from the pipeline alignment; St. Gabriel Elementary School (2550 41st Avenue), 1,000 feet northwest of the pipeline alignment; St. Ignatius College Preparatory School (2001 37th Avenue), 350 feet from the pipeline alignment on 38th Avenue; Lawton Elementary School (1570 31st Avenue), 350 feet from the pipeline alignment on 34th Avenue; Star Light Christian Preschool (750 26th Avenue), 300 feet from the pipeline alignment on Cabrillo Street; Shalom School (862 28th Avenue), 400 feet south of the pipeline alignment on Cabrillo Street; Lafayette Elementary School (4545 Anza Street), adjacent to the pipeline alignment on

¹¹ The factors responsible for variation in exposure are also often similar to factors associated with greater susceptibility to air quality health effects.

¹² BAAQMD, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012, p. 11. Available online at: <http://www.baaqmd.gov/Home/Divisions/Planning%20and%20Research/CEQA%20GUIDELINES/Tools%20and%20Methodology.aspx>.

¹³ CARB, CEPA, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available online at: <http://www.arb.ca.gov/ch/handbook.pdf>.

¹⁴ The Pomeroy Center provides recreation, vocational and educational opportunities for people with disabilities (including children, teens, adults, and seniors).

37th Avenue; and Cabrillo Elementary School (735 24th Avenue), adjacent to the pipeline alignment on 24th Avenue.

Existing Sources of TACs in the Project Vicinity

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to inventory and assess air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed “Air Pollution Exposure Zones,” were identified based on two health-protective criteria: (1) excess cancer risk from the contribution of emissions from all modeled sources greater than 100 per 1 million population, and/or (2) cumulative PM_{2.5} concentrations greater than 10 µg/m³. Land use projects within the Air Pollutant Exposure Zones require special consideration to determine whether the project’s activities would expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality.

Within Air Pollutant Exposure Zones, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution. The San Francisco Planning Department has determined that the project facilities are located outside of mapped localized Air Pollutant Exposure Zones, with one exception: the recycled water treatment facility would be located within an Air Pollutant Exposure Zone indicated at the Oceanside WPCP (see **Figure 5.5-1**). However, there are no sensitive receptors within 1,000 feet of the Oceanside WPCP.

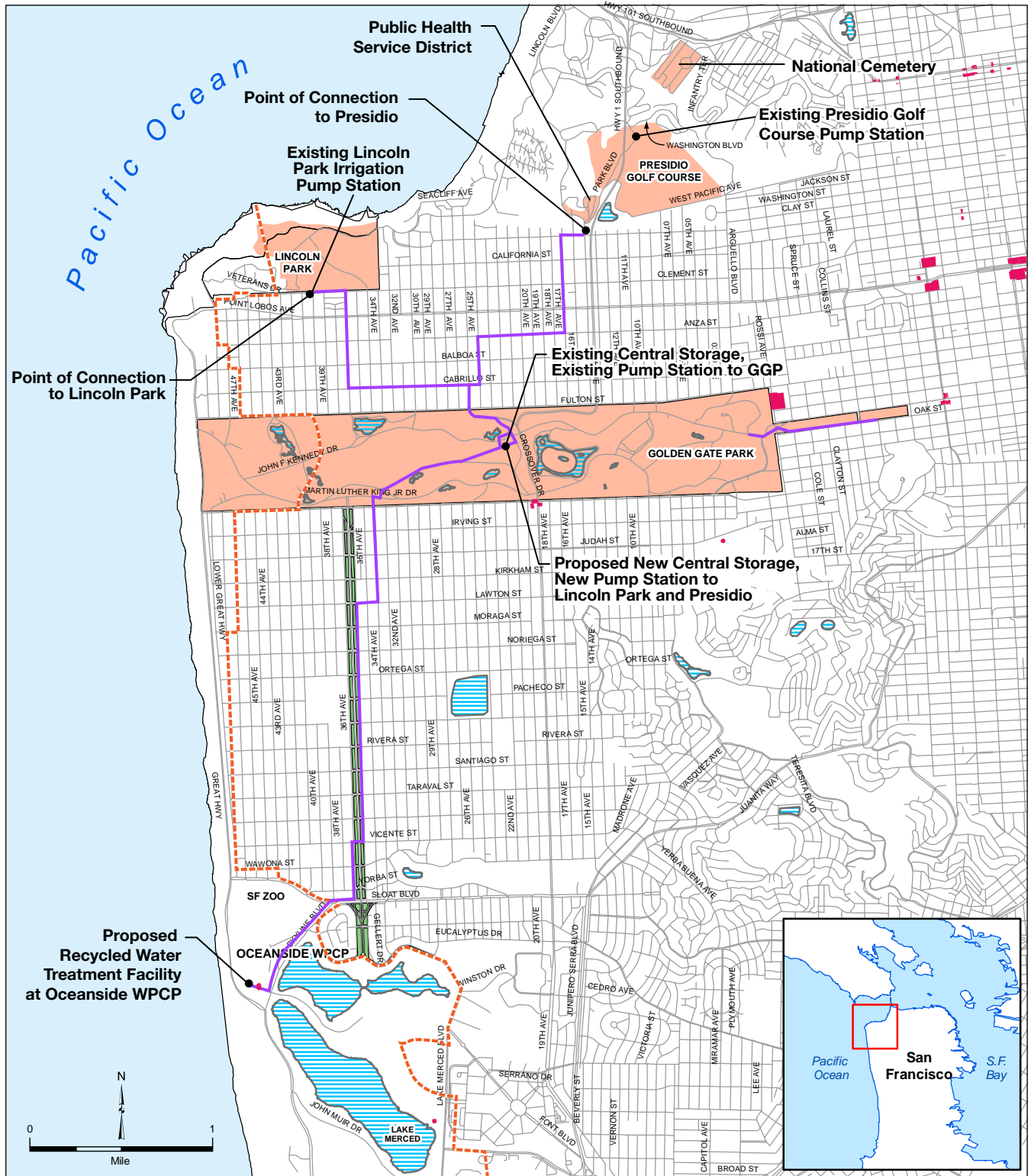
5.5.2 Regulatory Framework

Air Quality Regulations and Plans

Federal Ambient Air Quality Standards

The 1970 CAA (as amended in 1990) required that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants will be controlled to achieve all standards by the deadlines specified in the CAA. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect those segments of the public most susceptible to respiratory distress, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed.

The determination of whether a region’s air quality is healthful or unhealthful is made by comparing contaminant levels in ambient air samples to the national ambient air quality standards (NAAQS). Data from regional monitoring stations is used to establish a region’s attainment status for criteria air pollutants. The purpose of these designations is to identify planning areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are “nonattainment,” “attainment,” and “unclassified.” The “unclassified” designation is used for an area that cannot be classified on the basis of available information as meeting or not meeting the standards.



- Proposed Pipeline Alignment
- Coastal Zone Boundary
- Customer Area Served
- City of San Francisco Air Pollution Zones

SOURCE: SFPUC, 2007; 2010; DOA, 2005; ESRI, 2008; ESA, 2013; CCSF, 2006.

San Francisco Westside Recycled Water Project EIR
Figure 5.5-1
 Project Location and City of San Francisco
 Air Pollution Zones

The current attainment status for the SFBAAB, with respect to federal standards, is summarized in **Table 5.5-3**. In general, the SFBAAB experiences concentrations that attain the standards for most pollutants except for ozone and particulate matter (PM₁₀ and PM_{2.5}), for which standards are exceeded periodically. In June 2004, the Bay Area was designated as a “marginal nonattainment” area of the national 8-hour ozone standard. The U.S. EPA lowered the national 8-hour ozone standard from 0.80 to 0.75 ppm effective May 27, 2008. On February 7, 2012, the U.S. EPA proposed a rule that takes necessary steps to implement the 2008 national 8-hour ozone standard, establishing an approach for classification of nonattainment areas—areas not meeting the 2008 ozone standard.¹⁵ The SFBAAB is in attainment for criteria air pollutants with the exception of ozone and PM_{2.5}. The SFBAAB is “unclassified” for the national PM₁₀ standard; however, in 2009, the U.S. EPA designated the Bay Area as a “nonattainment” area for PM_{2.5}.

State Ambient Air Quality Standards

Although the federal CAA established the NAAQS, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when federal standards were established, and because of the unique meteorological problems in California, there is considerable diversity between the California ambient air quality standards (CAAQS) and the NAAQS, as shown in Table 5.5-3. CAAQS tend to be at least as protective as NAAQS and are often more stringent.

In 1988, California passed the CCAA (California Health and Safety Code Sections 39600 et seq.), which, like its federal counterpart, called for the designation of areas as attainment or nonattainment, although based on CAAQS rather than the NAAQS. The current attainment status for the SFBAAB with respect to CAAQS is summarized above in Table 5.5-3. In general, the SFBAAB experiences low concentrations of most pollutants when compared to CAAQS, except for ozone and particulate matter (PM₁₀ and PM_{2.5}), for which standards are exceeded periodically. The SFBAAB is in attainment for all criteria pollutants with the exception of the 24-hour standard for PM₁₀ and PM_{2.5}, for which the SFBAAB is designated “nonattainment” and “unclassified,” respectively, and the annual standard for PM₁₀ and PM_{2.5}, for which the SFBAAB is designated “nonattainment” for both.

Air Quality Planning Relative to State and Federal Standards

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM₁₀ standard). In September 2010, the BAAQMD adopted the *Bay Area 2010 Clean Air Plan* (2010 CAP), which was prepared in cooperation with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) replaced the existing Bay Area 2005 Ozone Strategy, adopted in 2006.

¹⁵ U.S. EPA, “Fact Sheet: Proposed Rule - Implementation of the 2008 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications Approach and Attainment Deadlines.” Available online at: <http://www.epa.gov/air/ozonepollution/pdfs/20120203factsheet.pdf>.

**TABLE 5.5-3
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND SFBAAB ATTAINMENT STATUS**

Pollutant	Averaging Time	State Standards ^a		Federal Standards ^b	
		Concentration	Attainment Status	Concentration ^c	Attainment Status
Ozone	1 hour	0.09 ppm (180 µg/m ³)	N	N/A	–
	8 hours	0.07 ppm (137 µg/m ³)	N	0.075 ppm	N
Carbon Monoxide (CO)	1 hour	20 ppm (23 mg/m ³)	A	35 ppm (40 mg/m ³)	A
	8 hours	9 ppm (10 mg/m ³)	A	9 ppm (10 mg/m ³)	A
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm (339 µg/m ³)	A	0.10 ppm ^d	U
	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	N/A	0.053 ppm (100 µg/m ³)	A
Sulfur Dioxide (SO ₂) ^e	1 hour	0.25 ppm (655 µg/m ³)	A	0.075 ppm (196 µg/m ³)	A
	24 hours	0.04 ppm (105 µg/m ³)	A	0.14 ppm (365 µg/m ³)	A
	Annual arithmetic mean	N/A	–	0.03 ppm (80 µg/m ³)	A
Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	N	150 µg/m ³	U
	Annual arithmetic mean	20 µg/m ³	N	N/A	–
Fine Particulate Matter (PM _{2.5})	24 hours	N/A	–	35 µg/m ³ ^f	N
	Annual arithmetic mean	12 µg/m ³	N	12 µg/m ³ ^g	U
Sulfates	24 hours	25 µg/m ³	A	N/A	–
Lead ^h	30-day average	1.5 µg/m ³	–	N/A	A
	Calendar quarter	N/A	–	1.5 µg/m ³	A
	Rolling 3-month average	N/A	–	0.15 µg/m ³	n
Hydrogen Sulfide	1 hour	0.03 ppm (0.15 µg/m ³)	U	N/A	–
Vinyl Chloride ⁱ	24 hours	0.01 ppm (26 µg/m ³)	–	N/A	–

^a State ambient air quality standards (California). The state standards for ozone, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂, and PM₁₀ are values not to be exceeded. All other state standards shown are values not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once a year on average.

^b National ambient air quality standards. National standards shown are the “primary standards” designed to protect public health. National standards, other than for ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.075 ppm (775 parts per billion) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of the 98th percentile is less than 35 µg/m³.

^c National air quality standards are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.

^d To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitoring station within an area must not exceed 0.100 ppm.

^e On June 2, 2010, the U.S. EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. However, the existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ national standards must continue to be used for 1 year following the U.S. EPA’s initial designation of the new 1-hour SO₂ national standard. The U.S. EPA expects to designate areas by June 2012.

^f The U.S. EPA designated the SFBAAB as nonattainment of the PM_{2.5} standard on October 8, 2009. The effective date of the designation is December 14, 2009, and the BAAQMD has 3 years to develop a State Implementation Plan that demonstrates the SFBAAB will achieve the revised standard by December 14, 2014. The State Implementation Plan for the new PM_{2.5} standard must be submitted to the U.S. EPA by December 14, 2012.

TABLE 5.5-3 (Continued)
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND SFBAAB ATTAINMENT STATUS

- g On December 14, 2012, the U.S. EPA lowered the federal primary PM_{2.5} annual standard from 15.0 µg/m³ to 12.0 µg/m³. (CARB, "Air Quality Standards and Area Designations," February 12, 2014. Available online at <http://www.arb.ca.gov/degis/pm25degis/pm25degis.htm>, Accessed February 19, 2015).
- h National lead standard, rolling 3-month average: final rule signed October 15, 2008.
- i CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure below which no adverse health effects would occur.

NOTES:

- "-" = not indicated or no information available
- A = attainment
- N = nonattainment
- U = unclassified
- N/A = not applicable or no applicable standard
- mg/m³ = milligrams per cubic meter.

SOURCE: BAAQMD, *Air Quality Standards & Attainment Status*. Available online at http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. Accessed December 16, 2014.

The 2010 CAP updates the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases in a single, integrated plan; and establish emission control measures to be adopted or implemented.

The control strategy includes stationary-source control measures to be implemented through BAAQMD regulations; mobile-source control measures to be implemented through incentive programs and other activities; and transportation control measures to be implemented through transportation programs in cooperation with the MTC, local governments, transit agencies, and others. The 2010 CAP also represents the Bay Area's most recent triennial assessment of the region's strategy to attain the state 1-hour ozone standard.

Although the BAAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with plans and new development projects within the SFBAAB.

Toxic Air Contaminants

In 2005, CARB approved a regulatory measure to reduce emissions of toxic and criteria pollutants by limiting the idling of new heavy-duty diesel vehicles (CARB Idling Regulations). The regulations generally limit idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than 5 consecutive minutes or periods aggregating more than 5 minutes in any 1 hour.¹⁶ Buses or vehicles also must turn off their engines upon stopping at a school and must not start their engines more than 30 seconds before beginning to depart from a school. Also, state law SB351 (adopted in 2003) prohibits locating public schools within 500 feet of a freeway or busy traffic corridor.

Bay Area Air Quality Management District

The BAAQMD is the regional agency with jurisdiction over the nine-county region located in the SFBAAB. ABAG, the MTC, county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

The BAAQMD is responsible for attaining and/or maintaining air quality in the SFBAAB within both the NAAQS and CAAQS. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAAB and to develop and implement strategies to attain the applicable federal and state standards.

¹⁶ California Code of Regulations, Title 13, Division 3, § 2485. There are 12 exceptions to this idling restriction, including: emergency situations; military activities; adverse weather conditions; when a vehicle's power takeoff is being used to run pumps, blowers, or other equipment; when a vehicle is stuck in traffic, stopped at a light, or under direction of a police officer; when a vehicle is queuing beyond 100 feet from any restricted area; or when an engine is being tested, serviced, or repaired.

San Francisco General Plan Air Quality Element

The *San Francisco General Plan* includes the 1997 Air Quality Element. The objectives specified by the City include the following:

- **Objective 1:** Adhere to state and federal standards and regional programs.
- **Objective 2:** Reduce mobile sources of air pollution through implementation of the Transportation Element of the General Plan.
- **Objective 3:** Decrease the air quality impacts of development by coordination of land use and transportation decisions.
- **Objective 4:** Improve air quality by increasing public awareness regarding the negative health effects of pollutants generated by stationary and mobile sources.
- **Objective 5:** Minimize particulate matter emissions from road and construction sites.
- **Objective 6:** Link the positive effects of energy conservation and waste management to emission reductions.

San Francisco Health Code Construction Dust Control Ordinance

San Francisco Health Code Article 22B and San Francisco Building Code Section 106.A.3.2.6 collectively constitute the Construction Dust Control Ordinance. This ordinance, the requirements of which City departments must comply with for all construction work on City property whether or not a permit is required from the Department of Building Inspection (DBI), requires that all site preparation work, demolition, or other construction activities that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures. The Director of DBI may waive this requirement for activities on sites less than 0.5 acre that are unlikely to result in any visible wind-blown dust.

For project sites greater than 0.5 acre in size, such as the project, the ordinance requires the project sponsor to submit a Dust Control Plan for approval by the San Francisco Department of Public Health (DPH). DBI will not issue a building permit without written notification from the Director of DPH that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. Interior-only tenant improvements, even if over 0.5 acre, that will not produce exterior visible dust are exempt from the site-specific Dust Control Plan requirements. The SFPUC Standard Construction Measures require all construction contractors to minimize fugitive dust and dirt emissions and prepare a dust control plan, thereby assuring that the San Francisco Health Code requirements are met even where a DBI permit is not required for the work.

San Francisco Clean Construction Ordinance

In 2007, the San Francisco Board of Supervisors adopted the Clean Construction Law (Ordinance No. 70-07, or CCO) to require City and County of San Francisco (CCSF) contractors to adopt clean construction practices, which included implementation of biodiesel fuel and emissions controls for all large CCSF-financed construction projects beginning in 2009. The ordinance applies to “major” projects (i.e., projects that would take at least 20 days of cumulative work to complete). In addition, for these major projects, the

emissions requirements apply to “high use” vehicles or diesel equipment that would be used for 20 or more hours during any portion of the project. On March 10, 2015, the Board of Supervisors adopted amendments to the CCO to update and clarify CCO requirements and codify these requirements within the Environment Code as Chapter 25, Clean Construction Requirements for Public Works, Sections 25.1 through 25.10. Chapter 25 is intended to protect the public health, safety, and welfare by requiring contractors on City public works projects to reduce diesel and other particulate matter emissions generated by construction activities. This chapter establishes two sets of requirements for (1) projects located within an Air Pollutant Exposure Zone (as defined in Article 38 of the Health Code) and (2) projects located outside of these Zones. Contractors performing major public works projects located within an Air Pollutant Exposure Zone are required to comply with the following:¹⁷

- All off-road equipment shall have engines that: (a) meet or exceed either U.S. EPA or ARB Tier 2 standards, and (b) have been retrofitted with an ARB Level 3 Verified Diesel Emission Control Strategy (VDECS). Equipment with engines meeting Tier 4 Interim or Tier 4 Final on standards automatically meet this requirement;
- Where access to alternative sources of power is available, use portable diesel engines to perform work on the project shall be prohibited;
- Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes at any location except as allowed for in applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs, in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the idling limit; and
- The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.
- Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan for review and approval by City staff, indicating how these requirements will be met.
- After the start of construction activities, the Contractor shall maintain quarterly reports at the construction site documenting compliance with the Construction Emissions Minimization Plan.

For public works projects located outside Air Pollutant Exposure Zones, the Contractor shall be required to:

- Use biodiesel fuel in off-road vehicles and off-road engines fueled by biodiesel fuel grade B20 (a blend of 20 percent biodiesel) or higher; and
- Use off-road equipment that either:
 - Meet or exceed U.S. EPA Tier 2 standards for off-road engines; or
 - Operate with the most effective VDECS.

¹⁷ San Francisco Board of Supervisors, Ordinance amending the Environment Code to require a Construction Emissions Minimization Plan and monitoring for certain public works projects within an Air Pollutant Exposure Zone and to require controls on emission-producing equipment used for public works projects outside of such zones; amending the Administrative Code to incorporate these requirements in construction contracts where applicable; and making environmental findings, March 10, 2015. Available at: <https://sfgov.legistar.com/LegislationDetail.aspx?ID=1847052&GUID=1DF57FA4-6E95-4811-BC49-E9929DCB353D>.

Compliance with the Clean Construction Law is required for all CCSF-financed construction projects, and thus applies to the project. For this analysis, all equipment used for the project was assumed to operate in compliance with this ordinance, as applicable outside of Air Pollutant Exposure Zones, and all off-road equipment is assumed to operate, at a minimum, using B20 with U.S. EPA Tier 2 engines.

5.5.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this Environmental Impact Report (EIR), implementation of the project would have a significant effect on air quality if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors); or
- Expose sensitive receptors to substantial pollutant concentrations.

The project would not conflict with or obstruct implementation of the applicable air quality plan for the reasons described below; therefore this EIR does not further analyze this impact:

- ***Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.*** The most recently adopted air quality plan for the SFBAAB is the BAAQMD's 2010 CAP, which is the plan that is the basis for assessing this impact. The 2010 CAP is a comprehensive plan aimed at improving Bay Area air quality and protecting public health. As indicated above in Section 5.5.2, the 2010 CAP contains control measures in the following categories: stationary-source measures, mobile-source measures, transportation control measures, land use and local impact measures, and energy and climate measures. The project would be consistent with the 2010 CAP if it (1) supports the primary goals of the 2010 CAP; (2) includes applicable control measures from the 2010 CAP; and (3) avoids disrupting or hindering implementation of control measures identified in the 2010 CAP.

Emissions from project construction would not hinder the long-term air quality planning goals of the 2010 CAP due to the project's short-term nature and relatively low levels of construction emissions. In addition, use of U.S EPA Tier 2 construction equipment and B20 biodiesel fuel in accordance with the Clean Construction Law (Ordinance No. 70-07) would help control emissions during project construction activities and would be consistent with the control measures and strategies identified in the 2010 CAP.

Except for emissions associated with the infrequent use of the generators during power outages and a small increase in maintenance-related traffic (up to 10 one-way vehicle trips per day), project operations would not result in increased air pollutant emissions. Occasional operation of the existing diesel-powered emergency generators at the Oceanside WPCP and portable diesel-powered emergency generators at the Central Pump Station facility would generate daily PM_{2.5} and TAC emissions that would be well below the significance thresholds. Given the limited

emissions associated with project operations (i.e., well below significance thresholds), the project's operational emissions would be consistent with the 2010 CAP (the most recently adopted regional air quality plan). Thus, the project would not conflict with or obstruct implementation of the applicable air quality plan, and no impacts would occur. Therefore, this issue is not addressed further in this EIR.

Approach to Analysis

As explained in the Initial Study (Appendix A), project operation would not result in generation of substantial pollutant concentrations or otherwise result in air quality impacts. However, construction of the project could result in violation of air quality standards or expose sensitive receptors to substantial pollutant concentrations. Therefore, the discussion below focuses on construction-related air quality impacts.

This air quality impact analysis is based on the *Air Quality Technical Report* prepared for the project.¹⁸ The Construction Dust Control Ordinance requirements provide that the project sponsor must designate an individual to monitor compliance with dust control requirements. Compliance with the requirements of the ordinance is assumed by this analysis.

This section discusses the thresholds for determining whether a project would result in a significant air quality impact. **Table 5.5-4** summarizes the air quality thresholds of significance used for this EIR, followed by a discussion of each threshold.

Although the BAAQMD's adoption of significance thresholds for air quality analysis in 2010 and 2011 are the subject of recent judicial actions, the Planning Department has determined that Appendix D of the BAAQMD *CEQA Air Quality Guidelines*,¹⁹ in combination with BAAQMD's *Revised Draft Options and Justification Report*, provide substantial evidence to support the BAAQMD recommended thresholds. Therefore, the Planning Department has determined they are appropriate for use in this analysis as standards of significance.

Ozone Precursors

As discussed in Section 5.5.2, Regulatory Framework, the SFBAAB is currently designated as nonattainment for ozone and PM. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_x. The BAAQMD is the primary air quality regulatory agency in the SFBAAB charged with ensuring that the region attains applicable NAAQS and CAAQS. The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts emissions limits for stationary sources. The federal New Source Review (NSR) program was created by the federal CAA to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of federal health-based ambient air quality standards. Similarly, to ensure that

¹⁸ Environmental Science Associates (ESA), *SFPUC San Francisco Recycled Water Project, San Francisco, California, Air Quality Technical Report*, February 2015.

¹⁹ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011.

**TABLE 5.5-4
 AIR QUALITY SIGNIFICANCE THRESHOLDS FOR CONSTRUCTION**

Pollutant	Construction Thresholds
	Average Daily Emissions (pounds/day)
Criteria Air Pollutants	
ROG	54
NO _x	54
PM ₁₀	82 (exhaust)
PM _{2.5}	54 (exhaust)
CO	Not Applicable
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices
Health Risks and Hazards for New Sources: Compliance with a Qualified Community Risk Reduction Plan or the following thresholds:	
Excess Cancer Risk	10 per one million
Chronic or Acute Hazard Index	1.0
Incremental Annual Average PM _{2.5}	0.3 µg/m ³
Cumulative Health Risks and Hazards for Sensitive Receptors (Cumulative from Sources within 1,000-foot zone of influence) and Cumulative Thresholds for New Sources	
Excess Cancer Risk	100 per one million
Chronic Hazard Index	10.0
Annual Average PM _{2.5}	0.8 µg/m ³

new stationary sources do not cause or contribute to a violation of an air quality standard, BAAQMD Regulation 2, Rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors, ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds per day).²⁰ These levels represent emissions by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO_x emissions as a result of increases in vehicle trips, architectural coating, and construction activities. Therefore, projects that result in emissions below these thresholds would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO_x emissions.

Particulate Matter (PM₁₀ and PM_{2.5})

The BAAQMD has not established an offset limit for PM_{2.5}, and the current federal prevention of significant deterioration offset limit of 100 tons/year for PM₁₀ is too high and would not be an appropriate significance threshold for the SFBAAB considering the nonattainment status of PM₁₀. However, the

²⁰ Ibid, page 17.

emissions limits provided for in the federal NSR that applies to stationary sources that emit criteria air pollutants in areas currently designated as nonattainment would be an appropriate significance threshold. For PM₁₀ and PM_{2.5}, the emissions limit under NSR is 15 tons/year (82 pounds/day) and 10 tons/year (54 pounds/day), respectively. These emissions limits represent levels by which a source is not expected to have an impact on air quality.²¹ Similar to ozone precursor thresholds identified above, land use development projects typically result in PM emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, projects that result in emissions below the NSR emissions limits would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in PM₁₀ and PM_{2.5} emissions. Because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

Other Criteria Pollutants

Regional concentrations of CO in the SFBAAB have not exceeded the CAAQS in the past 13 years, and SO₂ concentrations have never exceeded the standards. The primary source of CO impacts from land use projects is vehicle traffic. Construction-related SO₂ emissions represent a negligible portion of the total SFBAAB-wide emissions and construction-related CO emissions represent less than 5 percent of the SFBAAB-wide CO emissions.²² As discussed in Section 5.5.1, Setting, the SFBAAB is designated as attainment for both CO and SO₂. Furthermore, the BAAQMD has demonstrated that, to exceed the CAAQS of 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) for CO, project traffic in addition to existing traffic would have to exceed 44,000 vehicles/hour at affected intersections (or 24,000 vehicles/hour where vertical and/or horizontal mixing is limited).²³ Therefore, given the SFBAAB's attainment status and the limited CO and SO₂ emissions that could result from a land use projects, land use projects would not result in a cumulatively considerable net increase in CO or SO₂, and quantitative analysis not required.

Fugitive Dust

Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly control fugitive dust.²⁴ Individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.²⁵ The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.²⁶ The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires implementation of a number of fugitive dust control measures to ensure that construction projects do not result in visible dust. The BMPs employed in compliance with the City's Construction Dust Control Ordinance is an effective strategy for controlling construction-related fugitive dust.

²¹ Ibid, page 16.

²² Ibid, page 27.

²³ Vertical and horizontal mixing refers to air movement patterns. Limited vertical or horizontal mixing would limit dispersion of pollutants, resulting in a concentration of pollutants.

²⁴ Western Regional Air Partnership, *WRAP Fugitive Dust Handbook*, September 7, 2006. This document is available online at http://www.wrapair.org/forums/dejfdh/content/FDHandbook_Rev_06.pdf.

²⁵ BAAQMD, *California Environmental Quality Act Thresholds of Significance, Revised Draft Options and Justification Report*, October 2009, page 27.

²⁶ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011.

Health Risks and Hazards from New or Modified Sources

Construction activities typically require the use of heavy-duty diesel vehicles and equipment, which emit DPM. CARB identified DPM as a TAC in 1998, based on evidence demonstrating cancer effects in humans.²⁷ The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. Other sources of health risks and hazards include gas stations, stationary diesel engines (i.e., backup generators), dry cleaners, crematories, spray booths, diesel-fueled railroads, major ports, railyards, airports, oil refineries, power plants, and cement plants.²⁸ Land use projects that require a substantial amount of heavy-duty diesel vehicles and equipment, as well as projects that require stationary sources, such as a diesel backup generator, would result in emissions of DPM and possibly other TACs that may affect nearby sensitive receptors. Construction-phase TACs, however, would be temporary, and current health risk modeling methodologies are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities; this makes it difficult to produce accurate modeling results.²⁹ Nevertheless, DPM is a known TAC, and therefore appropriate thresholds are identified to ensure that a project does not expose sensitive receptors to substantial pollutant concentrations.

Similar to the criteria pollutant thresholds identified above, BAAQMD Regulation 2, Rule 5 sets cancer risk limits for new and modified sources of TACs at the maximally exposed individual (MEI). In addition to cancer risk, some TACs pose noncarcinogenic chronic or acute health hazards. Acute and chronic noncancer health hazards are expressed in terms of a hazard index (HI), which is a ratio of the TAC concentration to a reference exposure level, a level below which no adverse health effects are expected, even for sensitive individuals.³⁰ In accordance with Regulation 2, Rule 5, the BAAQMD Air Pollution Control Officer will deny any permit to operate a source that results in an increased cancer risk of 10 per million or an increase chronic or acute HI of 1.0 at the MEI. This threshold is designed to ensure that the source does not contribute to a cumulatively significant health risk impact.³¹

In addition, PM, primarily associated with mobile sources (vehicular emissions) is strongly associated with mortality, respiratory diseases, and impairment of lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease. Based on toxicological and epidemiological research, smaller particles and those associated with traffic appear more closely related to health effects.³² Therefore, estimates of PM_{2.5} impacts from a new source can be used to approximate broader potential adverse health effects. In 2010, the U.S. EPA established a Significant Impact Level (SIL) for PM_{2.5} of 0.3 $\mu\text{g}/\text{m}^3$ (annual average concentration). The SIL represents the level of incremental PM_{2.5} impact that represents a significant contribution to regional nonattainment.³³ The BAAQMD has determined that, on balance, the annual

²⁷ CARB, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," Fact Sheet, October 1998. Available online at <http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>.

²⁸ BAAQMD, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, Version 2.0, May 2011, p. 11.

²⁹ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, page 8-6.

³⁰ *Ibid.* p. D-35.

³¹ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, p. D-40.

³² San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

³³ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, p. D-36.

average PM_{2.5} threshold of 0.3 µg/m³ will afford the same health protections as required by San Francisco's Health Code Article 38.³⁴ Therefore, the U.S. EPA PM_{2.5} SIL of 0.3 µg/m³ is an appropriate threshold for determining the significance of a source's PM_{2.5} impact.

In determining the potential distance that emissions from a new source may affect nearby sensitive receptors, a summary of research findings in CARB's *Land Use Compatibility Handbook* suggest that air pollutants from high-volume roadways are substantially reduced or can even be indistinguishable from upwind background concentrations at a distance of 1,000 feet downwind from sources such as freeways and large distribution centers.³⁵ Given the scientific data on dispersion of TACs from a source, the BAAQMD recommends assessing impacts of sources of TACs on nearby receptors within a 1,000-foot radius.³⁶ This radius is also consistent with CARB's *Land Use Compatibility Handbook* and Health and Safety Code Section 42301.6 (Notice for Possible Source Near School).³⁷

In summary, potential health risks and hazards from new sources on existing or proposed sensitive receptors are assessed within a 1,000-foot zone of influence, and risks and hazards from new sources that exceed any of the following thresholds at the MEI are determined to be significant: excess cancer risk of 10 per one million, chronic or acute HI of 1.0, and annual average PM_{2.5} increase of 0.3 µg/m³.

Cumulative Air Quality Impacts

Regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present, and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.³⁸ As described above, the project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, if a project's emissions are below the project-level thresholds, the project would not be considered to result in a considerable contribution to cumulative regional air quality impacts.

With respect to localized health risks and hazards, as described above, the significance thresholds for new receptors represent a cumulative impact analysis as this analysis considers all potential sources that may result in adverse health impacts within a receptor's zone of influence. Similarly, new sources that contribute to health risks and hazards at nearby sensitive receptors that exceed these cumulative thresholds would result in a significant health risk and hazards impact on existing sensitive receptors.

Impact Summary

Table 5.5-5 summarizes the project's air quality impacts and significance determinations. Impacts are numbered following the sequence from the Initial Study (Appendix A), which addressed the project's less-than-significant air quality impacts associated with consistency with odors (Impact AQ-1).

³⁴ Ibid. p. D-41.

³⁵ Ibid. p. D-38.

³⁶ Ibid. p. D-40.

³⁷ Ibid.

³⁸ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, page 2-1.

**TABLE 5.5-5
 SUMMARY OF IMPACTS – AIR QUALITY**

Impacts	Significance Determinations
Impact AQ-2: The proposed project’s construction activities would generate fugitive dust and criteria air pollutants, and could violate an air quality standard or contribute substantially to an existing or projected air quality violation.	LSM
Impact AQ-3: Project construction would not result in substantial exposure of sensitive receptors to pollutant concentrations.	LS
Impact C-AQ: The proposed project could result in cumulative air quality impacts associated with criteria pollutant and precursor emissions and health risks.	LSM
NOTES: LSM = Less-than-Significant impact with Mitigation required. LS = Less-than-Significant impact, no mitigation required.	

Impacts Analysis

Impact AQ-2: The proposed project’s construction activities would generate fugitive dust and criteria air pollutants, and could violate an air quality standard or contribute substantially to an existing or projected air quality violation. (Less than Significant with Mitigation)

Construction (short-term) activities typically result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROG_s (ozone precursors) are also emitted from construction activities that involve painting, other types of architectural coatings, or asphalt paving. The project includes construction of new recycled water treatment, storage, pumping, and distribution facilities. During the project’s approximately 25-month construction period, construction activities would have the potential to result in emissions of ozone precursors and PM, as discussed below. Should the San Francisco Zoo be included as a recycled water customer in the future, construction of the required distribution facilities would be expected to result in impacts similar to those identified and described for other project pipelines.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute PM into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to impact on human health throughout the country. California has found that PM exposure can cause health effects at lower levels than national standards. The current health burden of PM demands that, where possible, public agencies take feasible available actions to reduce sources of PM exposure. According to CARB, reducing ambient PM from 1998–2000 levels to natural background concentrations in San Francisco would prevent over 200 premature deaths.

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds PM to the local atmosphere. Depending on exposure, adverse health effects can occur due to this PM in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

As explained under Section 5.5.2 Regulatory Framework, the City has adopted the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition, and construction work to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and avoid orders to stop work by the DBI.

The SFPUC ensures compliance with the ordinance requirements for all work it undertakes through its SFPUC Standard Construction Measures, which require all contractors to minimize fugitive dust and dirt and to prepare dust control plans, requirements that are consistent with those required by the ordinance.

The requirements of this ordinance are included in the SFPUC's contract specifications for work in San Francisco, and will require its contractor to prepare and implement a dust control plan, and designate an individual to monitor compliance with the dust control requirements. Dust-suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors would be required to provide as much water as necessary to control dust (without creating runoff in any area of land clearing, and/or earth movement). During excavation and dirt-moving activities, contractors would be required to wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil would be covered with a 10-millimeter (0.01-inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. Compliance with the requirements set forth in the Dust Control Ordinance would ensure that construction-related fugitive dust impacts associated with the project would be less than significant.

Criteria Air Pollutants

As discussed above, construction activities would result in emissions of criteria air pollutants from the use of off- and on-road vehicles and equipment. The project's off-road, construction-related emissions were estimated using an equipment mix provided by the SFPUC (see Chapter 3, Project Description) and the CARB's California Emissions Estimator Model (CalEEMod, version 2013.2.2). This version of the CalEEMod model was released in October 2013 and uses emission factors from CARB's OFFROAD2011 model. The project's on-road, construction-related worker, haul, and vendor truck emissions were calculated using EMFAC2011 emission factors. Details on the methodology and assumptions used for estimating emissions as well as modeling results are provided in the *Air Quality Technical Report* prepared for the project.³⁹

Chapter 25 of the San Francisco Environment Code establishes the City's Clean CCO. Under the CCO, all work required to be performed under a public works contract outside an Air Pollutant Exposure Zone must: (1) utilize only off-road equipment and off-road engines fueled by biodiesel fuel grade B20 or higher; and (2) utilize off-road equipment that either (a) meets or exceeds Tier 2 standards for off-road

³⁹ ESA, *SFPUC San Francisco Recycled Water Project, San Francisco, California, Air Quality Technical Report*, February 2015.

engines or (b) operates with the most effective verified diesel emission control strategy (VDECS).⁴⁰ To reflect these requirements, CalEEMod was run for two construction scenarios: (1) unmitigated condition, which assumes CCO compliance, including Tier 2 engines on construction equipment; and (2) mitigated condition, which assumes use of the cleaner Tier 3 engines.

Table 5.5-6 presents modeling results for the unmitigated construction scenario, which assumes compliance with the CCO (use of biodiesel fuel grade B20 or higher and U.S. EPA Tier 2 engines). Estimated construction-related emissions include construction dust from “fugitive” sources (PM₁₀ and PM_{2.5}), which are generated primarily during the site preparation and demolition phases; combustion-related emissions (ROG, NO_x, PM₁₀, and PM_{2.5}) associated with operation of off-road equipment, on-road worker commute trips and on-road delivery and haul truck operations; and VOC emissions from architectural coatings. As shown in Table 5.5-6, the total unmitigated daily emissions of the criteria pollutants NO_x, ROG, PM₁₀, and PM_{2.5} for each project component would be below the criteria pollutant thresholds listed in Table 5.5-4. But, when the pollutants are combined from overlapping construction schedules of the project components, NO_x emissions could exceed the 54 pounds/day significance criterion.

**TABLE 5.5-6
UNMITIGATED AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS
(ASSUMES COMPLIANCE WITH THE CLEAN CONSTRUCTION ORDINANCE)**

Project Facility	Average Daily Construction-Related Pollutant Emissions (pounds/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
<i>Recycled Water Treatment Plant at Oceanside WPCP</i>				
– Off-Road Equipment	2.3	25.3	1.3	1.3
– On-Road Trucks	0.1	1.9	0.1	0.0
Total	2.4	27.2	1.4	1.3
<i>Distribution Pumping and Storage Facilities at Central Reservoir in Golden Gate Park</i>				
– Off-Road Equipment	1.1	11.7	1.2	0.9
– On-Road Trucks	0.2	2.3	0.1	0.1
Total	1.3	14.0	1.3	1.0
<i>Distribution Pipelines^a</i>				
– Off-Road Equipment	2.0	21.9	1.8	1.5
– On-Road Trucks	0.2	2.1	0.1	0.0
Total	2.2	24.0	1.9	1.5
<i>Combined Emissions due to Overlapping Construction Schedules</i>				
– All Three Project Areas	5.9	65.3	4.6	3.7
<i>BAAQMD Construction Threshold</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceeds Threshold?	No	Yes	No	No

NOTES: Assumes use of Tier 2 engines per CCO, as applicable outside of Air Pollutant Exposure Zones.

^a Should the San Francisco Zoo be included as a recycled water customer in the future, construction of the required distribution pipeline would result in similar less-than-significant emissions. However, this component would not contribute to significant combined emissions, as construction of this pipeline would not overlap with construction of these other project facilities.

SOURCE: CalEEMod output for off-road equipment and EMFAC2011 calculations for on-road trucks (in Appendix A of the Air Quality Technical Report, February 2015; SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015).

⁴⁰ Although the proposed recycled water treatment plant at the Oceanside WPCP is located within an Air Pollutant Exposure Zone, this component is exempt from the more stringent requirements specified in the CCO because there are no sensitive uses within 1,000 feet of this project component.

Table 5.5-7 presents modeling results for the mitigation condition. Construction emissions were estimated for the mitigated condition in which all off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities were assumed to have engines that meet or exceed U.S. EPA or CARB Tier 3 off-road emission standard. With use of Tier 3 engines (Mitigation Measure M-AQ-1), the project’s combined construction-related criteria pollutant emissions would be reduced to below the significance criteria listed in Table 5.5-4. As shown in Table 5.5-7, controlled emissions of criteria NO_x during construction of each project facility component would be reduced by 17 to 21 percent (19 percent overall) with use of equipment with Tier 3 engines, demonstrating that equipment and vehicle exhaust emissions associated with project construction could be reduced sufficiently with implementation of Mitigation Measure M-AQ-1 so as not to result in a violation of an air quality standard or contribute substantially to an existing or projected air quality violation. As a result, the air quality impact would be less than significant with mitigation.

**TABLE 5.5-7
MITIGATED AVERAGE DAILY CONSTRUCTION-RELATED EMISSIONS
(ASSUMES CCO COMPLIANCE PLUS USE OF TIER 3 ENGINES)**

Project Facility	Average Daily Construction-Related Pollutant Emissions (pounds/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
<i>Recycled Water Treatment Plant at Oceanside WPCP</i>				
– Off-Road Equipment	2.3	20.9	1.3	1.3
– On-Road Trucks	0.1	1.9	0.1	0.1
Total	2.4	22.8	1.4	1.4
<i>Distribution Pumping and Storage Facilities at Central Reservoir in Golden Gate Park</i>				
– Off-Road Equipment	1.0	8.7	1.1	0.9
– On-Road Trucks	0.2	2.3	0.1	0.1
Total	1.2	11.0	1.2	1.0
<i>Distribution Pipelines</i>				
– Off-Road Equipment	1.9	17.1	1.8	1.4
– On-Road Trucks	0.2	2.1	0.1	0.0
Total	2.1	19.2	1.9	1.4
<i>Combined Emissions due to Overlapping Construction Schedules</i>				
– All Three Projects	5.7	53.1	4.5	3.7
<i>BAAQMD Construction Threshold</i>	54	54	82	54
Exceeds Threshold?	No	No	No	No

NOTES: Assumes use of Tier 3 engines in lieu of current Tier 2 requirements of the CCO.

SOURCE: CalEEMod output for off-road equipment and EMFAC2011 calculations for on-road trucks (in Appendix A of the Air Quality Technical Report, February 2015; SFPUC, Personal Communication Regarding Westside Recycled Water Project Information Request, January 27, 2015.).

Mitigation Measures

Mitigation Measure M-AQ-1: Construction Emissions Minimization.

- A. **Additional Exhaust Control Measures.** In addition to complying with the applicable Clean Construction Ordinance requirements (use of biodiesel fuel grade B20 or higher, and meets or exceeds Tier 2 engines or operates with the most effective VDECS for off-road equipment), Tier 3 equipment or better shall be used for any off-road equipment that is greater than 25 horsepower and that would operate for more than 20 total hours over the entire duration of construction activities so that average construction-related NOX emissions from all overlapping project components shall not exceed 54 pounds per day. The contractor shall be required to submit a monthly equipment inventory that demonstrates compliance with these requirements. If the foregoing requirements are implemented, no further quantification of emissions shall be required. Alternatively, the project sponsor may elect to substitute alternative measures for review and approval by the Environmental Review Officer (ERO). Such alternative measures shall demonstrate that daily NOx emissions from all equipment sources are below 54 pounds per day, which may include without limitation the following: use of Tier 4 engines or alternative technologies that reduce NOx emissions.

Impact Significance After Mitigation: Compliance with Mitigation Measure M-AQ-1 would reduce construction criteria pollutant emissions impacts on the air basin to a less-than-significant level.

Impact AQ-3: The proposed project's construction activities would generate TACs, including DPM, but would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Off-road equipment (which includes construction-related equipment) is a large contributor to DPM emissions in California, although, since 2007, CARB has found the emissions to be substantially lower than previously expected.⁴¹ Newer and more refined emissions inventories have substantially lowered the estimates of DPM emissions from off-road equipment, but this source still continues to be an important contributor to DPM emissions in California.⁴² Revised PM emission estimates for the year 2010, for which DPM is a major component of total PM, have decreased by 83 percent from previous estimates for the SFBAAB.⁴³ Approximately half of the reduction can be attributed to the economic recession, and approximately half can be attributed to updated assumptions independent of the economic recession (i.e., updated methodologies used to better assess construction emissions).⁴⁴

Additionally, a number of federal and state regulations are requiring cleaner off-road equipment. Specifically, both the U.S. EPA and California have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emission standards were phased in between 1996 and 2000 and

⁴¹ CARB, 2010. *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010, p.1 and p. 13 (Figure 4).

⁴² Ibid.

⁴³ CARB, 2012, "In-Use Off-Road Equipment, 2011 Inventory Model," Query, http://www.arb.ca.gov/msei/categories.htm#inuse_or_category, Accessed April 2, 2012.

⁴⁴ CARB, 2010. *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

Tier 4 Interim and Final emission standards for all new engines will be phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several more years, the U.S. EPA estimates that by implementing the federal Tier 4 standards, NO_x and PM emissions will be reduced by more than 90 percent.⁴⁵ Furthermore, California regulations limit maximum idling times to 5 minutes, which further reduces public exposure to DPM emissions.⁴⁶

Construction activities do not lend themselves to quantifiable analysis of long-term health risks because available modeling methodologies are not designed to estimate health risk exposures from emissions of a temporary and variable nature. As explained in the BAAQMD's *CEQA Air Quality Guidelines*:

- Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB, 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk.⁴⁷

Given the short-term and variable nature of construction activities combined with modeling tools that use much longer exposure periods, project-level analyses of construction activities have a tendency to produce overestimated assessments of long-term health risks. However, within Air Pollutant Exposure Zones, as discussed above, additional construction activity may adversely affect nearby populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

The recycled water treatment facility is located within an Air Pollutant Exposure Zone located at the Oceanside WPCP (see Figure 5.5-1). The Oceanside WPCP (Plant No. 4116, 3500 Great Highway) is identified by the BAAQMD as a stationary source with a cancer risk of 39.15 in a million, HI of 0.881, and PM_{2.5} concentration of 7.140. The project's location within this zone indicates that the project site is in an area that already experiences poor air quality and project construction activities, which include use of off-road equipment during the 25-month construction duration, would generate additional air pollution and could affect nearby sensitive receptors. However, no sensitive receptors are located within 1,000 feet of the Oceanside WPCP.⁴⁸ Therefore, construction work at the Oceanside WPCP site is not expected to result in exposure of sensitive receptors to substantial TAC emissions.

No other project facility sites are located within any identified Air Pollutant Exposure Zone. Also, should the San Francisco Zoo be included as a recycled water customer in the future, construction of the required distribution pipeline would not be expected to expose sensitive receptors to substantial air pollutants, since it is also not located within any identified Air Pollutant Exposure Zone.

⁴⁵ United States Environmental Protection Agency (U.S. EPA), "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

⁴⁶ California Code of Regulations, Title 13, Division 3, Section 2485.

⁴⁷ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, p. 8-6.

⁴⁸ The BAAQMD recommends that all receptors located within a 1,000-foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks and hazards for the proposed new source (BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, p. 5-7).

On-road heavy-duty diesel vehicles on designated truck routes would be used during the 36-month construction duration, but emissions would be short-term and variable in nature and would not be expected to expose sensitive receptors to substantial air pollutants in the project areas outside Air Pollutant Exposure Zones. Furthermore, the project would be subject to, and would comply with, California regulations limiting idling to no more than 5 minutes, which would further reduce nearby sensitive receptors exposure to temporary and variable DPM emissions.

Mitigation: None required.

Cumulative

Impact C-AQ: The proposed project could result in cumulative air quality impacts associated with criteria pollutant and precursor emissions and health risks, but the project's contribution would not be cumulatively considerable. (Less than Significant with Mitigation)

As discussed above, regional air pollution is by its nature largely a cumulative impact. Emissions from past, present, and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.⁴⁹

Construction-Related Criteria Pollutant Emissions

The geographic scope for cumulative impacts related to criteria pollutant and precursor emissions generated during construction of the project is the SFBAAB. As presented in Table 5.5-1 above, ambient air quality standards for PM₁₀ and PM_{2.5} have recently been exceeded in the SFBAAB. Therefore, there is an existing cumulative air quality impact in the SFBAAB. Section 5.1.4, Approach to Cumulative Impact Analysis and Cumulative Projects, describes the approach to the cumulative analysis used throughout this EIR and summarizes cumulative projects in the vicinity of project facilities.

The project would include installation of new recycled water treatment plant facilities, distribution pumps and storage facilities, and distribution pipelines. With proposed overlapping construction schedules, total average daily emissions could exceed BAAQMD average daily significance thresholds for construction activities. The BAAQMD thresholds represent the levels above which a project's individual emissions of criteria pollutants and precursors would result in a cumulatively considerable contribution to the SFBAAB's existing significant cumulative impact with respect to air quality violations. If average daily or annual emissions exceed these thresholds, the project would result in a cumulatively considerable (i.e., significant) impact. As indicated in Impact AQ-1 above, construction-related combined criteria pollutant and precursor exhaust emissions associated with the project could exceed these significance thresholds and the project could make a considerable contribution to these cumulative construction-related air emissions. But, the project would not exceed these thresholds with the use of Tier 3 engines, or the use of a combination of Tier 3 and Tier 2 engines, as required in Mitigation Measure M-AQ-1. With regard to

⁴⁹ BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, p. 2-1.

fugitive dust, compliance with the requirements identified in the Dust Control Ordinance would ensure that construction-related fugitive dust impacts associated with the project would be less than significant. Therefore, the project's short-term contribution to cumulative air quality impacts related to criteria pollutants and precursor emissions during construction would not be cumulatively considerable with the implementation of Mitigation Measure M-AQ-1, and the cumulative impact would be less than significant with mitigation.

Construction-Related Health Risks from Exposure to TACs

Except for the proposed recycled water treatment facility site at the Oceanside WPCP, project facility sites are not located within any identified Air Pollutant Exposure Zones where elevated levels of TACs are known to exist. Projects located within these zones require special consideration to determine whether the project's activities would expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality. Although the recycled water treatment facility is within an Air Pollutant Exposure Zone located at the Oceanside WPCP (see Figure 1), no sensitive receptors are located within 1,000 feet of this facility site and therefore, the project would not expose sensitive receptors to significant increased emissions of TACs.⁵⁰ The project's construction-related contribution to cumulative impacts within this zone would not be cumulatively considerable (less than significant), and no mitigation is required.

Impact Significance After Mitigation: The Construction Emissions Minimization Plan and required reporting prior to and during the construction period will ensure that off-road construction equipment are equipped with the appropriate combination of Tier 2 and Tier 3 engines (based on the combination of equipment ultimately used) such that average construction-related NO_x emissions from all overlapping project components do not exceed 54 pounds per day. Therefore, compliance with Mitigation Measure M-AQ-1 would reduce the project's cumulative contribution to construction emissions impacts on the air basin to a less-than-significant level.

⁵⁰ The BAAQMD recommends that all receptors located within a 1,000-foot radius of the project's fence line be assessed for potentially significant impacts from the incremental increase in risks and hazards for the proposed new source (BAAQMD, *CEQA Air Quality Guidelines*, Updated May 2011, page 5-7).

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5.6 Hydrology and Water Quality

This section discusses the existing setting and regulatory framework relative to treated wastewater (effluent) discharges from the Oceanside Water Pollution Control Plant (WPCP), and addresses the water quality impacts that could result from changes in these discharges under the proposed San Francisco Public Utilities Commission (SFPUC) Westside Recycled Water Project (project).

5.6.1 Setting

San Francisco Public Utilities Commission Combined Sewer System

The majority of stormwater runoff from the western portions of San Francisco, including flow from most of the project area, is diverted to the city's combined sewer and stormwater system, which collects and transports both sanitary sewage and stormwater runoff in the same set of pipes. In 2010, approximately 14 million gallons per day (mgd) of effluent were discharged from San Francisco's Westside drainage area to the Pacific Ocean through the Oceanside WPCP located at 3500 Great Highway.¹ This plant has the capability to treat up to 43 mgd of sewage to a secondary level² and has a permitted dry-weather capacity of 21 mgd. Therefore, the Oceanside WPCP can accommodate all existing dry-weather flows, which are treated to a secondary level prior to discharge to the ocean through the Southwest Ocean Outfall located 3.75 miles offshore.

During wet weather, the combined wastewater and stormwater flow is conveyed to treatment facilities before eventual discharge to the Pacific Ocean. Depending on the amount of rainfall, wet-weather flows are treated to varying levels before being discharged. Up to 43 mgd of wet-weather flows receive secondary treatment³ at the Oceanside WPCP. Up to an additional 22 mgd of wet-weather flows are treated to a primary standard⁴ at the Oceanside WPCP and discharged through the Southwest Ocean Outfall. Wet-weather flows in excess of 65 mgd—the combined primary and secondary treatment capacity of the Oceanside WPCP—receive flow-through treatment equivalent to primary treatment in three large storage/transport boxes prior to discharge to the ocean. Wet-weather flows between 65 mgd and 175 mgd (approximately 37 percent of the total wet-weather flows) are discharged to the ocean through the Southwest Ocean Outfall, and flows in excess of 175 mgd (about 13 percent of the total wet-weather flows) are discharged at the shoreline through one of seven combined sewer discharge structures along the coast.

Because the ocean outfall is located beyond the California territorial limit of 3 miles, regulatory authority for the outfall discharge is under the jurisdiction of the U.S. Environmental Protection Agency (U.S. EPA); and near-shore discharges during wet-weather events are under the jurisdiction of the U.S. EPA and the

¹ San Francisco Public Utilities Commission (SFPUC), Email from Bonnie Jones, Senior Engineer, to Beth Goldstein, HydroConsult Engineers, Regarding Plant Flow Data, March 9, 2011.

² Secondary effluent treatment is a process that reduces suspended solids and biological oxygen demand in wastewater by approximately 90 percent.

³ Regional Water Quality Control Board (RWQCB), *Waste Discharge Requirements for City and County of San Francisco Oceanside Water Pollution Control Plant (Southwest Ocean Outfall) and Collection System, Including the Westside Wet Weather Facilities, NPDES Permit No. CA 0037681, Order No. R2-2009-0062*, Effective October 1, 2009.

⁴ Primary effluent treatment is removal of floating and settleable solids using physical operations such as screening and sedimentation.

San Francisco Bay Regional Water Quality Control Board (RWQCB). All dry- and wet-weather discharges from the combined sewer system to the Pacific Ocean, through either the Southwest Ocean Outfall or the combined sewer discharge structures, are performed, therefore, in compliance with the applicable requirements for each in the federal Clean Water Act and the State of California's Porter-Cologne Water Quality Control Act through National Pollutant Discharge Elimination System (NPDES) permit CA0037681, issued jointly by the RWQCB and the U.S. EPA.⁵

Pacific Ocean Monitoring

The SFPUC conducts the Southwest Ocean Outfall Regional Monitoring Program⁶ to assess the environmental effects on ocean water quality related to discharges of treated stormwater and wastewater from the Oceanside WPCP and associated facilities. This program includes the regional Offshore Monitoring Program. Under this program, ocean water samples are analyzed for various physical, chemical, and biological parameters to allow for a comparison of conditions in the Southwest Ocean Outfall area to reference conditions. The results of this program indicate that biological parameters and sediment pollutant concentrations at the Southwest Ocean Outfall discharge area have generally been the same or essentially the same as at the reference stations.

5.6.2 Regulatory Framework

Federal and State Regulations

Clean Water Act

The federal Clean Water Act and subsequent amendments, under the enforcement authority of the U.S. EPA, was established "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The act established the basic structure for regulating discharges of pollutants into the waters of the United States. It gave the U.S. EPA the authority to implement pollution control programs, such as setting wastewater standards for industry. The Clean Water Act also set water quality standards for all contaminants in surface waters and made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions.

NPDES Waste Discharge Regulations

The federal Clean Water Act established the NPDES program to protect the water quality of receiving waters. Under the Clean Water Act, U.S. EPA is required to establish technology based effluent limitations for point sources that are to be incorporated into NPDES permits. In addition, NPDES permits must be consistent with applicable state water quality standards. Under the Clean Water Act, Section 402, discharging pollutants to receiving waters is prohibited unless the discharge is in compliance with an NPDES permit. For California, the U.S. EPA determined that the state's water pollution control program had sufficient authority to manage the NPDES program under California law in a manner consistent with

⁵ Regional Water Quality Control Board (RWQCB), *Waste Discharge Requirements for City and County of San Francisco Oceanside Water Pollution Control Plant (Southwest Ocean Outfall) and Collection System, Including the Westside Wet Weather Facilities, NPDES Permit No. CA 0037681, Order No. R2-2009-0062, Effective October 1, 2009.*

⁶ SFPUC, *Southwest Ocean Outfall Regional Monitoring Program, 2011 Data Report*, August, 2012.

the Clean Water Act. Therefore, implementation and enforcement of the NPDES program is conducted through the State Water Resources Control Board (SWRCB) and the nine RWQCBs, as discussed below.

Water Quality Criteria

The Clean Water Act established ambient water quality criteria for the protection of aquatic life and human health that serve as guidance for states to use in adopting water quality standards. In 1980, the U.S. EPA published water quality criteria for 64 pollutants and pollutant classes, and considered noncancer, cancer, and taste and odor effects. Additional criteria were adopted under the 1992 National Toxics Rule, and criteria specific to California were adopted under the 2000 California Toxics Rule. In 2002, the U.S. EPA revised its recommended water quality criteria for 83 chemicals based on a revised methodology adopted in 2000 in order to protect human health, and in 2003 the U.S. EPA published an additional 15 revised human health criteria.⁷ Human health criteria are based on the assumption that a person could: (1) eat fish and drink water from a water body, or (2) only eat fish from a water body. The 2002 revisions incorporate new toxicity information on compounds and other changes in the calculation method.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) regulates water quality within California and established the authority of the SWRCB and the nine regional water boards. The quality of San Francisco Bay Area water resources is regulated under the jurisdiction of the San Francisco Bay RWQCB (Region 2).

Water Quality Control Plans and Beneficial Uses

The RWQCB's Basin Plan, which was most recently updated in 2013, establishes regulatory standards and objectives for water quality in the San Francisco Bay region.⁸ The Basin Plan identifies existing, limited, and potential beneficial uses for surface water and groundwater and provides numerical and narrative water quality objectives designed to protect those uses. Applicable water quality criteria for a specific water body are determined on the basis of the beneficial use(s) of the water. The Basin Plan also specifies that beneficial use designations for any given water body do not rule out the possibility that other beneficial uses exist or have the potential to exist. Existing beneficial uses that have not been formally designated in this Basin Plan are protected whether or not they are identified.

The SWRCB regulates water quality in the Pacific Ocean within three miles of the shoreline through regulatory standards and objectives outlined in the *Water Quality Control Plan, Ocean Waters of California* (commonly referred to the Ocean Plan).⁹ The Ocean Plan identifies beneficial uses of ocean waters and provides water quality objectives that are protective of these uses. The plan provides objectives for bacteriological, physical, chemical, biological, and radioactive characteristics, as well as general requirements for the management of waste discharges to the Pacific Ocean waters under state jurisdiction. The Southwest Ocean Outfall discharges to federal ocean waters 3.75 miles from shore. The U.S. EPA Region IX has in the past relied upon the water quality objectives of the Ocean Plan for the purpose of

⁷ USEPA, "Fact Sheet: National Recommended Water Quality Criteria Table," Fact Sheet, May 2005.

⁸ Regional Water Quality Control Board (RWQCB), *San Francisco Bay Region (Region 2), Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), June 29, 2013.

⁹ SWRCB, *California Ocean Plan, Water Quality Control Plan, Ocean Waters of California*, 2012, Effective August 19, 2013.

exercising its authority to regulate discharges from the Southwest Ocean Outfall. The Ocean Plan designates the following beneficial uses for the ocean waters off the shoreline of the state of California: industrial water supply; water-contact and noncontact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance; rare and endangered species; marine habitat; fish migration; and fish spawning and shellfish harvesting.

Oceanside WPCP NPDES Permit

Effluent from the Oceanside WPCP is currently regulated under NPDES permit (Order No. R2-2009-0062, NPDES No. CA0037681). The NPDES permit establishes effluent limitations and monitoring requirements for the effluent discharge primarily based on the Ocean Plan.

To protect the identified beneficial uses, the Ocean Plan sets forth water quality objectives for specific parameters. One objective is for ammonia, set at a daily maximum of 2,400 micrograms per liter ($\mu\text{g/L}$), a 6-month median of 600 $\mu\text{g/L}$, and an instantaneous maximum of 6,000 $\mu\text{g/L}$. Another water quality objective is for chronic toxicity, set at a daily maximum of 1 Toxicity Unit Chronic (TUC). The Ocean Plan does not specify a 6-month median or instantaneous maximum water quality objective for chronic toxicity. The daily maximum effluent limit is the maximum that applies to each day of discharge; the 6-month median effluent limit is the highest allowable median of all daily averages for any 180-day period. In addition, the plan specifies that discharges to the ocean must be designed and performed in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

To meet these water quality objectives, the NPDES Permit states that discharges from the Oceanside WPCP through the Southwest Ocean Outfall must receive an initial dilution of a minimum of 150:1 as they reach the receiving water. The permit specifies water-quality-based effluent limitations for parameters that may exceed the water quality objectives of the Ocean Plan and requires monitoring for these and additional parameters. A reasonable potential analysis¹⁰ conducted for this existing permit determined that with the specified amount of dilution, there is no reasonable potential for ammonia concentrations in the discharge to exceed the Ocean Plan water quality objectives. Therefore, the permit does not specify a water-quality-based effluent limitation, but does require monitoring for ammonia in the discharge. The permit also provides a specific standard for chronic toxicity of a maximum daily level of 150 TUC, which is based on a dilution level of 150:1, to meet the daily maximum water quality objective of 1 TUC.

The NPDES permit specifies that the SFPUC must implement a monitoring and reporting program and requires sampling to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements. If monitoring shows a violation of the chronic toxicity effluent limitation, the SFPUC must conduct a toxicity reduction evaluation and take all reasonable steps to reduce toxicity once the source is identified. The permit also requires that when there is a change in the effluent quality that could affect chronic toxicity, the SFPUC must conduct screening-phase monitoring and include the results in the NPDES permit application for reissuance.

¹⁰ A reasonable potential analysis is an evaluation conducted to identify pollutants in effluent that have the potential to exceed water quality criteria established in the Ocean Plan.

The current NPDES permit was effective on October 1, 2009, for a 5-year term. NPDES permits for which timely renewals are filed are automatically extended under the federal Clean Water Act, until a renewal is issued; the SFPUC timely filed for a renewal and, therefore, is continuing to operate the Oceanside WPCP under the current NPDES permit.¹¹ The SFPUC is working with the RWQCB and U.S. EPA to renew the permit. A tentative RWQCB order is expected by March 2015, with the final order and U.S. EPA approval expected by June 2015.

5.6.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this environmental impact report (EIR), implementation of the project would have a significant effect on hydrology and water quality if it were to:

- Violate any water quality standards or waste discharge requirements.

Approach to Analysis

The project would alter the quality of effluent water discharged from the Oceanside WPCP, which could result in water quality impacts. Therefore, the discussion below evaluates changes in effluent water quality and dilution associated with project-related changes in effluent water quality.

Impact Summary

Table 5.6-1 summarizes the proposed project’s hydrology and water quality impacts and significance determinations analyzed in this EIR. Impacts are numbered following the sequence from the Initial Study (Appendix A). The Initial Study addressed the project’s less-than-significant impacts associated with the violation of water quality standards and degradation of water quality during construction (Impact HY-1); runoff in excess of the capacity of the stormwater system (Impact HY-2); depletion of groundwater and interference with groundwater recharge (Impact HY-3); alteration of drainage patterns (Impact HY-4); flooding (Impact HY-5); and cumulative effects associated with those topics (Impact C-HY).

**TABLE 5.6-1
 SUMMARY OF IMPACTS – HYDROLOGY AND WATER QUALITY**

Impacts	Significance Determinations
Impact HY-6: Project operation would not violate water quality standards or otherwise substantially degrade water quality.	LS
Impact C-HY-2: The proposed project, in combination with other reasonably foreseeable past, present, and future projects, would not contribute to violations of water quality standards.	LS

NOTES:
 LS = Less than Significant impact, no mitigation required.

¹¹ City & County of San Francisco, *Waste Discharge for the Oceanside Water Pollution Control Plant and Westside Wet Weather Facilities Report, NPDES Permit No. CA0037681, April 3, 2014.*

Impacts Analysis

Impact HY-6: Project operation would not violate water quality standards or otherwise substantially degrade water quality. (Less than Significant)

The proposed project would produce recycled water by advanced treatment of a portion of the effluent from the Oceanside WPCP, and, because of this use of effluent, the project would result in a corresponding reduction in the volume of effluent discharged from the WPCP through the Southwest Ocean Outfall. This reduction in the volume of effluent could affect the dispersion and dilution of the effluent at the location it is discharged to the ocean. In addition, under the project, brine from the reverse-osmosis system would be added to the effluent prior to discharge, which would increase ammonia concentrations in and the associated chronic toxicity of the effluent.

As provided by the Clean Water Act, the current NPDES permit, which reached the end of its 5-year term at the end of September, 2014, is continuing in effect while SFPUC, RWQCB and U.S. EPA work on an NPDES permit renewal. The permit renewal process requires preparation of a reasonable potential analysis (described above for existing permit), which identifies pollutants in discharge that could exceed either water quality objectives established in the Ocean Plan or technology-based water quality criteria. If a pollutant does have the potential to exceed water quality objectives, a discharge limitation is calculated and included in the NPDES permit. The reasonable potential analysis considers both the concentration of a pollutant in the effluent and the amount of dilution the effluent will receive when discharged to the ocean.

In July 2014, the SFPUC conducted a reasonable potential analysis in support of the NPDES permit renewal process for the Oceanside WPCP.¹² This analysis evaluated changes in effluent water quality and dilution associated with the production of recycled water to meet a peak-day demand of 4 mgd, which is sufficient to meet the needs of currently identified recycled water customers, including Golden Gate Park, Lincoln Park Golf Course, and the Presidio. Based on the reasonable potential analysis with a peak-day demand of 4 mgd, pollutant concentrations would be up to 1.7 times greater when the recycled water treatment plant is operating than under existing conditions, and could be more than 4 times higher for brief hourly periods when the effluent would be comprised entirely of brine. The analysis determined that with production to meet the peak-day demand of 4 mgd, there would be a reasonable potential for ammonia to exceed the Ocean Plan's 6-month median water quality objective as well as its daily maximum water quality objective for chronic toxicity, and to exceed the technology-based water quality criterion for biochemical oxygen demand, as discussed below.

Ammonia and Chronic Toxicity

Dilution modeling performed in support of the permit renewal estimated that the maximum daily dilution of ammonia in effluent would be 112:1 once the recycled water treatment plant is operational. To achieve the 6-month median ammonia water quality objective of the Ocean Plan (600 µg/L), the discharged effluent would need to be diluted by at least 122:1. To achieve the maximum daily water quality objective for chronic toxicity (1 TUC), the effluent would need to be diluted by at least 239:1. Based

¹² Patricia McGovern Engineers, *Westside Recycled Water Project, Regulatory Considerations, Reasonable Potential Analysis and Consideration of Other Agencies, Draft*. Prepared for the SFPUC, July 25, 2014.

on this analysis, ammonia and chronic toxicity have the potential to exceed water quality objectives and it would be expected that the NPDES permit renewal would include effluent limits for these constituents.

The SFPUC, RWQCB, and U.S. EPA are examining how compliance with the water quality objectives is assessed. For instance, the dilution modeling for the reasonable potential analysis was based on the methodology traditionally used by the RWQCB and U.S. EPA, which estimates the maximum daily dilution; this approach is conservative and does not account for ocean currents, which can increase dilution. In addition, this approach does not consider the 6-month median dilution, which is the median of all daily averages for any 180-day period. The 6-month median water quality objective for ammonia would not be exceeded at a dilution ratio of 173:1 (the project's calculated 6-month median) or at a dilution ratio of 185:1 (the project's maximum daily dilution when accounting for currents).

The daily maximum chronic toxicity objective would still be exceeded at dilution ratios of 173:1 and 185:1, calculated as described above. However, there are several methods for determining chronic toxicity levels in effluent. The traditional methodology presented in the reasonable potential analysis determines the level at which 25 percent of the test organisms exhibit inhibition in biological reproduction or growth. This method, which determines inhibition concentration, is known as IC25. Another approach, called the Test of Significant Toxicity (TST), and also presented in the reasonable potential analysis, provides a statistical approach for analyzing toxicity data. The SWRCB is proposing this approach be used at the statewide level. Using this TST statistical approach, the reasonable potential analysis completed for the permit renewal estimates that a minimum dilution of 50:1 would be needed to meet Ocean Plan's maximum daily chronic toxicity objective. The concentrated effluent would meet the water quality objective for chronic toxicity at the modeled maximum daily dilution of 112:1 using this statistical methodology. If the TST approach were used to assess dilution and chronic toxicity, the effluent would meet the water quality objectives of the Ocean Plan.

Biochemical Oxygen Demand

The existing NPDES permit specifies technology-based effluent limitations for several pollutant markers, including biochemical oxygen demand (BOD).¹³ In addition, the permit requires that the average monthly removal of BOD shall not be less than 85 percent. The reasonable potential analysis prepared for the permit renewal indicates that, under the proposed project, the concentrated effluent is expected to exceed the BOD weekly permit limit of 45 milligrams per liter (mg/L) approximately 3 percent of the time and the monthly permit limit of 30 mg/L approximately 11 percent of the time.

Analysis for BOD measures the oxidation of both carbon and nitrogenous compounds in the water. The SFPUC suspects that nitrifying bacteria in the effluent sampling port may be skewing BOD analytical results, which could explain the exceedances of BOD. To address this, the SFPUC is proposing to monitor Carbonaceous Biochemical Oxygen Demand (CBOD), which measures only the oxidation of carbon materials, in place of monitoring for BOD. The CBOD limits proposed by the SFPUC are a weekly median of 40 mg/L and a monthly median of 25 mg/L. When the CBOD data from 2000 to 2013 is concentrated to

¹³ Biochemical oxygen demand (BOD) is the amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material present in a given water sample at a certain temperature over a specific time period. The term also refers to a chemical procedure for determining this amount.

account for flows from the recycled water treatment plant, the reasonable potential analysis estimates that no exceedances of these proposed weekly or monthly CBOD limits would occur.

NPDES Permit Renewal

Regardless of what final requirements are included in the renewal of the NPDES permit, the effluent discharged from the Oceanside WPCP would need to meet limits derived from water quality objectives that are specified in the permit. Further, in the event that additional future recycled water customers are identified and service to those customers requires an increase in production over 4 mgd (peak-day demand), the SFPUC would need to operate within the permit limits in a newly-adopted order to serve these customers.

It is expected that the NPDES permit would be renewed before the project operation begins in 2016. The renewed permit would need to contain effluent limitations for the Oceanside WPCP that are protective of the beneficial uses of the Pacific Ocean, and would require the SFPUC to monitor for compliance with permit requirements. The effluent limitations included in the permit would anticipate changes in effluent water quality as a result of project implementation and would assure effluent limits are protective of beneficial uses identified in the Ocean Plan. With adoption of the renewed permit, impacts related to a violation of water quality standards or waste discharge requirements as well as degradation of water quality would be less than significant in relation to changes in effluent quality, and no mitigation is required.

Mitigation: None required.

Cumulative Impacts

Impact C-HY-2: The proposed project, in combination with other reasonably foreseeable past, present, and future projects, would not contribute to violations of water quality standards.

Because the Oceanside WPCP discharges to the Pacific Ocean, the geographic scope for cumulative impacts includes other projects that discharge to the ocean at the same location or in the vicinity. Section 5.1.4, Approach to Cumulative Impact Analysis and Cumulative Projects, describes the approach to the cumulative analysis used throughout this EIR and summarizes cumulative projects in the vicinity of the project.

The SFPUC is planning to implement the Temperature Phased Anaerobic Digestion project at the Oceanside WPCP to treat wastewater solids. Discharges of effluent treated using this process would also increase ammonia concentrations in the plant effluent by up to 12 percent. The reasonable potential analysis conducted in support of the NPDES permit renewal concluded that when this cumulative project and the recycled water treatment plant are both operational, the effluent would need to be diluted by at least 137:1 before discharge to the ocean to achieve the Ocean Plan's 6-month median water quality objective for ammonia (600 µg/L).¹⁴ To achieve the maximum daily water quality objective for chronic

¹⁴ Patricia McGovern Engineers, *Westside Recycled Water Project, Regulatory Considerations, Reasonable Potential Analysis and Consideration of Other Agencies, Draft*. Prepared for the SFPUC, July 25, 2014.

toxicity (1 TUc), the effluent would need to be diluted by at least 267:1. The reasonable potential analyses for the project concluded that these water quality objectives would be met if the following methods were used: the 6-month median dilution, daily maximum dilution ratios that account for currents, and the TST method for assessment of chronic toxicity.

The NPDES permit with effluent limitations for the Oceanside WPCP that are protective of the beneficial uses of the Pacific Ocean would be required for each project to operate. The renewed permit would contain effluent limits that take into consideration changes in effluent water quality as a result of implementation of both projects. It would require monitoring by the SFPUC to ensure compliance with the permit requirements. As a result, cumulative impacts related to a violation of water quality standards or waste discharge requirements as well as degradation of water quality would be less than significant in relation to changes in effluent quality, and no mitigation is required.

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CHAPTER 6

Other CEQA Issues

6.1 Growth-Inducing Impacts

6.1.1 Introduction and Overview

This section analyzes the growth-inducement potential and associated secondary effects of growth resulting from implementation of the proposed project, as required by the California Environmental Quality Act (CEQA). CEQA requires that an Environmental Impact Report (EIR) evaluate the growth-inducing impacts of a proposed project.¹ A growth-inducing impact is defined as follows:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth.... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

As described in Chapter 2, Section 2.2, the San Francisco Planning Department prepared a Program Environmental Impact Report (PEIR) on the San Francisco Public Utilities Commission's (SFPUC) Water System Improvement Program (WSIP), which was certified in October 2008.² The PEIR includes a detailed analysis of the growth-inducement potential of the overall WSIP water supply strategy, concluding that "The WSIP would support planned growth in the existing SFPUC service area (WSIP PEIR, Vol. 4, Chapter 7, Impact 7-1)."

The proposed San Francisco Westside Recycled Water Project (project), as a facility improvement project of the WSIP, would be a contributing factor in that growth-inducement potential and the associated indirect effects of growth. By removing the lack of a reliable water supply and supply system as one potential obstacle to growth within the SFPUC service area, the WSIP, and thus the proposed project, would have an indirect growth-inducing effect according to the CEQA definition above.³

¹ CEQA Guidelines Section 15126.2(d).

² San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

³ The WSIP would not *directly* induce growth as it does not involve the development of new housing to attract additional population, nor would it indirectly induce growth by establishing substantial permanent or even short-term construction employment opportunities that could stimulate population growth. Construction of the WSIP projects is not expected to involve employment opportunities substantially beyond what would normally be available to construction workers in the area, and workers are expected to be drawn from the local labor pool.

This EIR tiers from the WSIP PEIR, and the growth-inducement analysis contained in PEIR Chapter 7 and associated Appendix E are incorporated by reference into this EIR. All impacts related to the WSIP water supply strategy to which this project contributes have been examined at a sufficient level of detail in the PEIR, and no additional review is necessary in this EIR. The significant environmental impacts were adequately addressed in the PEIR, and the SFPUC adopted CEQA Findings on the PEIR related to the growth-inducing impacts of the WSIP. A summary of the growth-inducement analysis in the PEIR is provided below.

6.1.2 Summary of PEIR Growth-Inducement Analysis

Implementation of the WSIP would achieve the WSIP goals and objectives through 2018, allowing the SFPUC to: (1) meet customer water supply needs in nondrought periods through 2018; and (2) limit rationing to a maximum 20 percent reduction in water service systemwide during extended droughts. Achieving the WSIP water supply goal would increase the reliability of water service to existing customers and allow for service to additional residential and business customers as a result of planned growth in the SFPUC service area.

A variety of factors influence new development or population growth in the area served by SFPUC water, including the economic conditions of the region, adopted growth management policies in the affected communities, and the availability of adequate infrastructure (e.g., water service, sewer service, public schools, roadways), with economic factors generally being the lead driver. While many factors affect the growth potential of a community, water service is one of the chief public services needed to support urban development; lack of a reliable water supply, as well as a service capacity deficiency, could constrain future development.

Pursuant to CEQA, growth per se is not necessarily assumed to be beneficial, detrimental, or of little significance to the environment; however, the secondary, or indirect, effects of growth can cause adverse changes to the physical environment. Potential indirect effects of population and/or economic growth and accompanying development include increased demand on community services and public service infrastructure; increased traffic and noise; degradation of air and water quality; and conversion of agricultural land and open space to urban uses. Local land use plans (e.g., general plans and specific plans) of the jurisdictions served by the SFPUC establish land use development patterns and growth policies that are intended to allow for the orderly expansion of urban development supported by adequate public services (including water supply, roadway infrastructure, sewer service, and solid waste service). Local jurisdictions conduct CEQA environmental reviews on their general and specific plans to assess the secondary effects of planned growth and identify feasible mitigation for significant adverse effects. A project that would induce growth and is inconsistent with local land use plans and policies could indirectly cause adverse environmental impacts, as well as impacts on public services; this could occur if the local land use jurisdictions have not previously addressed these issues during the CEQA reviews of their land use plans and development proposals.

By increasing the available water supply through groundwater and recycled water projects and increasing the reliability of the SFPUC water delivery system, the WSIP would have an indirect growth-inducing effect according to the CEQA definition. The WSIP would support growth in the SFPUC service area through 2018, although it appears that some growth would occur irrespective of the WSIP due to

increased water delivery efficiencies (e.g., plumbing code changes), conservation, and other water supply sources. Growth would in turn result in indirect effects. In most cases, the effects of population and employment growth have been identified and addressed in the EIRs for the general plans and associated area plans and specific plans adopted by the jurisdictions in the service area. Some of the identified indirect effects of growth are significant and unavoidable; others are significant but can be mitigated.

The local jurisdictions have identified potentially significant and unavoidable impacts as a result of growth in the SFPUC service area in the following topical areas: traffic congestion; air pollution; traffic noise; construction noise; increased demand for public schools and other public services; loss of recreational opportunities and impacts on visual quality resulting from the loss of open space; cumulative effects on over-utilized parks; loss of wildlife habitat and wetlands, and impacts on other biological resources; cumulative impacts on cultural resources; increased flooding potential; increased urban runoff pollutants; seismic hazards; induced population growth; failure to meet housing demand for projected population growth; exposure of new development to contaminated soil or groundwater; insufficient water supply; insufficient wastewater disposal capacity; loss of agricultural resources; land use conflicts; conflicts with existing land use plans or policies; and changes in the density, scale, and character of an area.

The adopted WSIP would have growth-inducement potential through 2018 because the SFPUC (with the cooperation of the wholesale customers) would provide the additional water supply to meet purchase requests through 2018. The WSIP would support much of the growth through 2018 in the jurisdictions served by the SFPUC regional water system. In general, development that was planned and approved in the SFPUC service area through the general plan process would have environmental impacts. The environmental consequences of this planned growth have been largely addressed in local plans and the associated CEQA reviews, as well as in other project-specific documentation. In a number of jurisdictions, negative declarations or mitigated negative declarations were prepared for general plans and related planning documents, the implementation of which were found not to result in significant environmental effects.

The PEIR does not identify any mitigation measures for implementation by the SFPUC that could substantially decrease or eliminate growth-inducing impacts, because the SFPUC does not control the decisions of the local agencies with respect to growth in their respective jurisdictions. Individual agencies' general plans and environmental documents contain actions, limitations, and mitigation measures that will be implemented in the respective jurisdictions through local development project or program approvals. These types of mitigation measures were identified in the PEIR (see PEIR Chapter 7 and PEIR Appendix E, which are incorporated by reference into this EIR).

To assess the growth-inducement potential of the WSIP and characterize the secondary effects of growth, the PEIR investigates the following questions:

- *What assumptions did the SFPUC and its wholesale customers make regarding growth (population and employment) in projecting future (2030) total water demand and customer purchases from the SFPUC?*
- *Are these assumptions consistent with forecasts prepared and used by local and regional planning agencies (e.g., Association of Bay Area Governments [ABAG], counties, and cities) within the service area? What are the growth trends in the Bay Area region?*

- *Are there any notable inconsistencies between the population and employment forecasts used by the SFPUC and the wholesale customers and those of the local and regional planning agencies that suggest that the water supply planning efforts are inconsistent with land use planning efforts?*
- *Is the level of growth projected for 2030 consistent with that identified and planned for in existing adopted general plans?*
- *What are the potential environmental impacts (secondary effects) associated with growth projected to occur in the service area? Have these impacts been evaluated in previous CEQA review documents on existing general and specific plans?*
- *What mitigation measures and findings have the local jurisdictions adopted as part of approving their future growth plans?*

The issues raised in these questions are summarized below and addressed in detail in PEIR Chapter 7 (Vol. 4) and supplemented by PEIR Appendix E (Vol. 5).

- ***SFPUC Projections (PEIR Section 7.2).*** Accurate demand projections are important in ensuring that future water supplies will be adequate while not surpassing the needs of planned growth. SFPUC and its customers used computer models to forecast future water demand. Section 7.2 presents an overview of the SFPUC water service area, and describes key factors (assumptions, inputs, and methodologies) used in estimating future demand that relate to growth and to inform comparisons between water demand and land use planning projections. These factors include baseline population, methodology used to determine existing water usage by land use/account type, the current water supply agreement between the SFPUC and its wholesale customers, and assumptions regarding future land use patterns, water conservation and recycling, and water from other (non-SFPUC) sources through 2030. The demand estimates, in conjunction with estimates of savings from conservation and use of other water sources, provide the basis for the 2030 purchase estimates.
- ***Growth-Inducement Potential (PEIR Section 7.3).*** This section analyzes the WSIP's growth-inducement potential: whether the demand to be met by the WSIP would be consistent with local plans and policies or could contribute to growth in the service area beyond that called for in the existing general plan. To gauge the consistency of the WSIP with growth planned in the jurisdictions served by the SFPUC, the analysis compares the growth assumed in the SFPUC projections with growth forecasts (a) developed by ABAG, and (b) reflected in adopted land use plans in the service area. With respect to ABAG, this section also describes ABAG's changing expectations about growth as reflected in its updated projections issued in 2002, 2003, and 2005.
- ***Indirect Effects of Growth (PEIR Section 7.4).*** Growth (whether planned or unplanned) can cause environmental impacts. Section 7.4 describes the potential impacts of growth that could be supported, in part, by implementation of the WSIP. This section also identifies measures adopted to reduce, eliminate, or otherwise mitigate the impacts of planned growth.

6.1.3 Summary of Conclusions

A review of historical growth trends of a selection of jurisdictions in the service area, based primarily on information in general plans and Bay Area Water Supply and Conservation Association profiles, shows that:

- Cities in the service area are largely urbanized, most having experienced their most rapid growth in the postwar decades through the 1970s.

- Milpitas and East Palo Alto have experienced high rates of growth more recently.
- San Francisco’s population fluctuated somewhat, but on average has been essentially stable over the past 50 years.
- Many jurisdictions cannot grow laterally, and their general plans include policies to manage growth; many general plans identify strategies consistent with “smart growth” principles, such as encouraging infill development and the redevelopment of previously developed areas, to accommodate future growth.
- The SFPUC’s wholesale customers vary widely, in a variety of ways: by size, overall demand projected for 2030, the change that the 2030 demand represents in absolute terms and as a percentage of 2001 demand, and the degree to which the customers depend on the SFPUC for their water supply. As such, the WSIP would remove growth obstacles to varying degrees within the service area.

As stated above, the complete growth-inducement analysis is included in PEIR Chapter 7 and PEIR Appendix E, which are incorporated into this EIR by reference.

6.1.4 Indirect Effects of Growth

The indirect effects of growth expected in the general plans of jurisdictions in the service area have been identified in the EIRs prepared for those plans. Impacts commonly identified as significant and unavoidable and those commonly identified as significant but mitigable are presented in PEIR Section 7.4 and summarized briefly below.

- The most commonly identified significant and unavoidable impacts of growth are:
 - Increased traffic congestion
 - Deterioration of air quality
 - Cumulative effects of increased air pollutant emissions and noise
- Mitigation measures have been adopted by local jurisdictions as part of their general plan approval processes to address the secondary effects of planned growth. These measures are summarized in PEIR Appendix E.
- Two cities identified increased demand for potable water supply as a significant and unavoidable effect of growth; the WSIP would address this issue in those two cities.
- Overriding considerations commonly adopted by the decision-making bodies in adopting their general plans include:
 - Accommodation of growth in an orderly, fiscally sound manner
 - Economic diversification and job generation
 - Creation of housing, furtherance of regional housing share objectives, and provision of affordable housing
 - Improvements of the local jobs/housing balance
 - Increased sales revenue and positive fiscal impact

- Promotion of alternative modes of travel to reduce reliance on private vehicles
- Establishment of policies to preserve natural areas and open space lands
- For many cities that receive water from the SFPUC regional system, the supply to be provided under the WSIP supports and is consistent with the planned growth reflected in their existing adopted general plans. For other communities, it appears that the WSIP supply (in combination with other supply sources available to those communities) could serve a level of growth beyond that identified in the existing general plans. In those cases, secondary effects of such growth could include impacts related to increased density and impacts related to development of new land areas.
 - Density-related impacts could include increased traffic congestion, air pollution, traffic noise, construction noise, and demand on public services.
 - Land-area-related impacts could include loss of open space and agricultural land, and loss of and degradation of water quality due to increases in impervious surface area.

The proposed project would not directly induce population or economic growth, and it would not tax existing community service facilities or encourage other activities that could significantly affect the environment. However, as described above, the project is one of the facility improvement projects that comprise the WSIP; therefore, its implementation would contribute to the growth-inducement potential of the WSIP and the associated indirect effects of growth. Implementation of the project would thus contribute to an incremental portion of the growth-inducement impacts and associated indirect impacts of growth of the WSIP. See Chapter 7 of the PEIR for a detailed analysis of the WSIP's growth-inducement effects.⁴

6.2 Significant and Unavoidable Impacts

In accordance with Section 21067 of CEQA and Sections 15126(b) and 15126.2(b) of the CEQA Guidelines, the purpose of this section is to identify project-related environmental impacts that could not be eliminated or reduced to a less-than-significant level with implementation of all mitigation measures identified in Chapter 5, Environmental Setting and Impacts. The findings in this chapter are subject to final determination by the San Francisco Planning Commission as part of its certification of the EIR.

6.2.1 Significant and Unavoidable, and Potentially Significant and Unavoidable Effects of the Proposed Project

This section identifies project impacts that, even with the implementation of all identified mitigation measures, would remain potentially significant or significant, and are therefore considered *unavoidable*. The analyses presented in Chapter 5, Environmental Setting and Impacts, of this EIR indicate that implementation of the proposed project would not result in significant unavoidable impacts. All impacts would either be no impact, less than significant, or reduced to less-than-significant levels with implementation of the identified mitigation measures.

⁴ San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

6.2.2 Significant and Unavoidable Effects of the WSIP

The proposed project is one of the facility improvement projects that comprise the SFPUC's WSIP. Insofar as the proposed project is a component of the WSIP, it would contribute to the WSIP's significant and unavoidable, and potentially significant and unavoidable water supply and growth-inducement impacts, as identified in the WSIP PEIR⁵ and summarized below:

- By providing water to support planned growth in the SFPUC service area, the WSIP will result in significant and unavoidable growth-inducement impacts that are primarily due to secondary effects such as air quality, traffic congestion, and water quality. These impacts were adequately addressed in the PEIR at a sufficient level of detail such that no further analysis is required in this EIR. The analysis contained in the PEIR is incorporated into this EIR by this reference (see PEIR Chapter 7).
- Based on the best available information at that time, the PEIR made the conservative determination that the WSIP would result in a potentially significant and unavoidable impact on fishery resources in Crystal Springs Reservoir related to inundation of spawning habitat upstream of the reservoir (see PEIR Chapter 5, Section 5.5.5, Impact 5.5.5-1). The project-level fisheries analysis in the Lower Crystal Springs Dam Improvements Project EIR modified certain PEIR impact determinations based on more detailed site-specific data and analysis. Project-level conclusions supersede any contrary impact conclusions in the PEIR. Project-level review of updated site-specific information that was developed following certification of the PEIR was incorporated into the project-level EIR for the Lower Crystal Springs Dam Improvements Project, and the project-level analysis determined that impacts on fishery resources due to inundation effects would be less than significant.⁶
- Based on the best available information at that time, the PEIR made the conservative determination that the WSIP would result in a significant and unavoidable impact related to flow along Alameda Creek below the Alameda Creek Diversion Dam ("Alameda Creek Hydrologic Impact") (see PEIR Chapter 4, Section 5.4.1, Impact 5.4.1-2). The project-level analysis in the Calaveras Dam Replacement Project EIR modified this PEIR impact determination to less than significant based on more detailed site-specific data and analysis.⁷ Project-level conclusions supersede any contrary impact conclusions in the PEIR. Project-level review of updated site-specific information that was developed following certification of the PEIR was incorporated into the project-level EIR for the Calaveras Dam Replacement Project, and the project-level analysis determined that impacts related to reduced flow along Alameda Creek below the Alameda Creek Diversion Dam would be less than significant.⁸

⁵ Ibid.

⁶ San Francisco Planning Department, *San Francisco Public Utilities Commission's Lower Crystal Springs Dam Improvements Project, Final Environmental Impact Report, Draft EIR Vol. 1 and Response to Comments*, File No. 2005.0161E, State Clearinghouse No. 2007012002, Certified October 7, 2010.

⁷ San Francisco Planning Department, *San Francisco Public Utilities Commission's Calaveras Dam Replacement Project, Final Environmental Impact Report*, Vol. 1, 3, 4, File No. 2005.0161E, State Clearinghouse No. 2005102102, Certified January 27, 2011.

⁸ Ibid.

6.3 Effects Found not to be Significant

The Notice of Preparation (NOP) distributed for the proposed project included an Initial Study that analyzed resource topics that were determined not to apply to the proposed project as well as resource topics where the project would have no impact or a less-than-significant impact, with or without mitigation (see Appendix A and Table 1-2). These topics, and the associated potential effects as indicated in the significance criteria, are not analyzed in this EIR:

- **Land Use and Land Use Planning** (physically divide an established community; conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or have a substantial impact upon the existing character of the vicinity).
- **Aesthetics** (have a substantial adverse effect on a scenic vista; substantially damage scenic resources; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties).
- **Population and Housing** (displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing; or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere).
- **Transportation and Circulation** (conflict with an applicable congestion management program; or result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks).
- **Noise** (result in exposure of person to or generation of excessive groundborne vibration or groundborne noise levels; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; expose people residing or working in airport areas to excessive noise levels; expose people residing or working in airstrip areas to excessive noise levels; or be substantially affected by existing noise levels).
- **Air Quality** (create objectionable odors affecting a substantial number of people).
- **Greenhouse Gas Emissions** (generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases).
- **Wind and Shadow** (alter wind in a manner that substantially affects public areas; or create new shadow in a manner that substantially affects outdoor recreation facilities or other public area).
- **Recreation** (increase the use of existing neighborhood and regional parks or other recreational facilities resulting in or accelerating a substantial physical deterioration of the facilities; include recreational facilities or require construction or expansion of recreational facilities that might have an adverse impact; or physically degrade existing recreational resources).
- **Utilities and Service Systems** (exceed applicable Regional Water Quality Control Board wastewater treatment requirements; require or result in the construction of new water or wastewater treatment facilities, drainage facilities, or expansion of existing facilities, which would cause significant impacts due to construction; require new or expanded water supply resources or

entitlements; result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments; be served by a landfill with sufficient capacity to accommodate the project's solid waste disposal needs; or comply with federal state, and local statutes and regulations related to solid waste).

- **Public Services** (result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered government facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public service).
- **Biological Resources** (have a substantial adverse effect, either directly or through habitat modifications, on any species identifies as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means; 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 site; conflict with any local policies or ordinances protecting biological resources; conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan).
- **Geology and Soils** (expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides; result in substantial soil erosion or the loss of topsoil; be located on 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; be located on expansive soil creating substantial risks to life or property; have substantial soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or change substantially the topography or any unique geologic or physical features of the site).
- **Hydrology** (substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion of siltation on- or off-site or result in flooding on- or off-site; 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; otherwise substantially degrade water quality; place housing within a 100-year flood hazard area; place within a 100-year flood hazard area structures that would impede or redirect flood flows; expose people or structures to a significant risk of loss, injury or death involving flooding or inundation by seiche, tsunami, or mudflow).
- **Hazards and Hazardous Materials** (create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials; 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; emit hazardous emissions or

handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; 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 create a significant hazard to the public or the environment; result in a safety hazard for people residing in an airport area or airstrip area; impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or expose people or structures to a significant risk of loss, injury or death involving fires).

- **Mineral and Energy Resources** (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; result in the loss of availability of a locally important mineral resource recovery site delineated in a land use plan; or encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner).
- **Agriculture and Forest Resources** (convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land or timberland; result in the loss of forest land or conversion of forest land to non-forest use; or 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 forest land to non-forest use).

During the EIR scoping period, comments were submitted from public agencies, organizations, and the public expressing various concerns about the project. Many comments were adequately addressed in the EIR. Other comments were adequately addressed in the Initial Study and for the following reasons:

- **Aesthetics and Recreation:** Some comments expressed concern about the visibility of project structures. As explained in the Initial Study, the proposed project would not have a substantial permanent adverse effect on a scenic vista, substantial damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings (See Initial Study, Aesthetics Impact AE-1). New pipelines would be below ground. Upgrades to existing structures would include no substantial change to the visual character; facility type and structure size would remain consistent with the existing structure. For new above-ground structures, visibility is generally limited.
- **Biological Resources:** While commenters provided additional background information on the presence of biological species, the information provided was consistent with resources identified in the Initial Study. Inclusion of additional resource information would not lead to identification of additional biological resources impacts, or the need for revision of the mitigation measures included in the Initial Study. The impacts to biological resources are sufficiently addressed in the Initial Study and mitigation measures identified are adequate to address potential impacts. Additionally, a commenter wondered whether impacts to tree resources were addressed but did not present additional information regarding the potential for impacts to tree resources. Initial Study Impact BI_5 addresses impacts to trees.
- **Hydrology:** Comments expressed concern about the potential effects of recycled water use on specific waterbodies. The Initial Study addresses the regulatory requirements that apply to use/application of recycled water (See Initial Study, Hydrology and Water Quality Impact HY-2), including recommendations regarding monitoring of constituents of emerging concern, requirements regarding application rates and containment of application areas, and compliance with water quality requirements. Adherence to the appropriate regulatory requirements would ensure that high-quality recycled water is consistently produced, monitored, and carefully applied, and that public health and surface and groundwater quality are protected.

Subsequent to publication of the Initial Study, the project sponsor team modified the project description by indicating that existing San Francisco Recreation and Parks Department wood waste and composting activities would be temporarily relocate from the Central Reservoir site to the former Richmond-Sunset Water Pollution Control Plant (WPCP) site (referred to as the “West End Dump”) during project construction activities. In addition, the project description was modified to include construction of larger reservoir to store secondary treated water produced at the Oceanside WPCP, and the brine discharge pipeline location was modified. These changes would have no effect on the following topics addressed in the Initial Study: Land Use and Land Use Planning, Aesthetics, Population and Housing, Cultural and Paleontological Resources, Noise, Air Quality, Greenhouse Gas Emissions, Wind and Shadow, Utilities and Service Systems, Public Services, Geology and Soils, Hydrology and Water Quality, Hazards and Hazardous Materials, Minerals and Energy Resources, and Agriculture and Forest Resources:

For other topics covered in the Initial Study, the following discussion is provided:

- **Recreation:** Project modifications do not include recreational facilities or residential use, and would not require the construction or expansion of recreational facilities. Temporary relocation of the wood waste and composting activities to the West End Dump would not permanently affect recreation within Golden Gate Park, as this site is fenced and is not open to the public.
- **Biological Resources:** Modified project activities would be subject to mitigation measures established in the Initial Study for nesting birds and roosting bats. There are no CNDDDB identified special-status amphibian, invertebrate, fish, or plant species with a moderate or high potential to occur at the West End Dump or Oceanside WPCP sites because there is no suitable habitat (see Appendix A). No wetlands, riparian habitat, or protected trees would be affected.

6.4 Areas of Known Controversy and Issues to be Resolved

The SFPUC first proposed the project in June 2008 with the release of an NOP and scoping meetings by the San Francisco Planning Department. This first proposal was to construct a recycled water treatment plant at the Oceanside WPCP that would supply recycled water to Golden Gate Park, Lincoln Park, the San Francisco Zoo, and other smaller parks. The project did not include reverse-osmosis treatment of the water. The SFPUC subsequently determined that: (1) reverse osmosis was a necessary component of the project, and (2) the original site location at the Oceanside WPCP was too small to include reverse-osmosis treatment facilities. The SFPUC then proposed to construct the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park; this newly defined project would supply recycled water to Golden Gate Park, Lincoln Park, and the Presidio Golf Course. The San Francisco Planning Department issued a second NOP in September 2010 and held scoping meetings on this second proposal. Substantial public comment was received following the release of the 2010 NOP, with many commenters expressing concern about the proposed location of the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park. Following the NOP scoping period, the SFPUC held a series of public workshops to inform the public of the planning process that led to the 2010 proposed project description and to solicit feedback on other potential project sites. As a result of that process, the SFPUC identified five sites as technically feasible, including the proposed Golden Gate Park site. Over the following year, the SFPUC evaluated the feasibility of the five potential project sites. This evaluation process resulted in the project as now proposed.

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CHAPTER 7

Alternatives

7.1 Introduction

This chapter presents the California Environmental Quality Act (CEQA) alternatives analysis for the proposed San Francisco Westside Recycled Water Project (project). The CEQA Guidelines, Section 15126.6(a), state that an Environmental Impact Report (EIR) must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the project's basic objectives and would avoid or substantially lessen any identified significant adverse environmental effects of the project. Specifically, the CEQA Guidelines (Section 15126.6) set forth the following criteria for selecting and evaluating alternatives:

- ***Identifying Alternatives.*** The selection of alternatives is limited to those that would avoid or substantially lessen any of the significant effects of the project, are feasible, and would attain most of the basic objectives of the project. Factors that may be considered when addressing the feasibility of an alternative include site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, economic viability, and whether the proponent can reasonably acquire, control, or otherwise have access to an alternative site. An EIR need not consider an alternative whose impacts cannot be reasonably ascertained and whose implementation is remote and speculative. The specific alternative of “no project” must also be evaluated.
- ***Range of Alternatives.*** An EIR need not consider every conceivable alternative, but must consider and discuss a reasonable range of feasible alternatives in a manner that will foster informed decision-making and public participation. The “rule of reason” governs the selection and consideration of EIR alternatives, requiring that an EIR set forth only those alternatives necessary to permit a reasoned choice. The lead agency (the City and County of San Francisco [CCSF]) is responsible for selecting a range of project alternatives to be examined and for disclosing its rationale for choosing the alternatives.
- ***Evaluation of Alternatives.*** EIRs are required to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. Matrices may be used to display the major characteristics and the environmental effects of each alternative. If an alternative would cause one or more significant effects that would not result from the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project.

The project is one of the key regional facility improvement projects under the San Francisco Public Utilities Commission's (SFPUC) Water System Improvement Program (WSIP). Section 7.2 summarizes the

systemwide, programmatic alternatives that were analyzed in the WSIP Program EIR¹ to provide context for the alternatives to the project within the overall WSIP. Section 7.3 describes the alternatives selection process and the objectives of the project; summarizes the significant impacts of the project; describes the alternatives selected for detailed analysis; and compares the environmental impacts of each alternative to those of the proposed project. Section 7.4 identifies the environmentally superior alternative. Section 7.5 discusses the preliminary alternatives that were considered but rejected from further consideration.

7.2 WSIP Alternatives

As discussed in Chapter 2, Introduction and Background, of this EIR, the SFPUC approved implementation of the Phased WSIP in October 2008. The WSIP is a comprehensive program to improve the reliability of the SFPUC regional water system with respect to water quality, seismic response, and water delivery based on a planning horizon through the year 2030, and to improve the system with respect to water supply to meet water delivery needs in the service area through the year 2018. It includes a series of key regional facility improvement projects, including the project. To the extent that the project would contribute to achieving the goals and objectives of the WSIP, the analysis of the WSIP alternatives applies to the alternatives analysis of the project.

The San Francisco Planning Department, Environmental Planning Division (formerly the Major Environmental Analysis Division) considered systemwide alternatives to the WSIP in the Program Environmental Impact Report (PEIR), which the San Francisco Planning Commission certified on October 30, 2008. The PEIR evaluated seven alternatives to the WSIP based on their apparent ability to meet most of the WSIP's goals, their ability to reduce one or more of the significant impacts associated with program implementation, their potential feasibility, and their collective ability to provide a reasonable range of alternatives to foster informed decision-making and public participation. Analysis of the No Program Alternative was included in the PEIR as required by CEQA.

The San Francisco Planning Commission certified the PEIR in October 2008 (Planning Commission Motion No. 17734). Thereafter, the SFPUC approved the Phased WSIP, and the SFPUC approved the PEIR and adopted the CEQA Findings on the WSIP (SFPUC Resolution 08-0200). The Phased WSIP incorporates elements of three alternatives analyzed in the PEIR: the No Purchase Request Increase Alternative, the Aggressive Conservation/Water Recycling and Groundwater Alternative, and the Modified WSIP Alternative. Chapters 9 and 14 of the PEIR include more detailed descriptions of these WSIP alternatives, and also present the associated program-level environmental analysis of these alternatives. Chapter 13 of the PEIR includes additional information about the adopted Phased WSIP. All three of these chapters are incorporated into this EIR by reference. The proposed program and the alternatives examined in the PEIR are summarized below for informational purposes.

- **WSIP Proposed Program.** The proposed program described and analyzed in the PEIR established program goals and system performance objectives in the areas of water quality, seismic reliability, delivery reliability, and water supply. The WSIP would provide for water supplies to serve

¹ San Francisco Planning Department, *San Francisco Public Utilities Commission's Water System Improvement Program, Final Program Environmental Impact Report*, File No. 2005.0159E, State Clearinghouse No. 2005092026, Certified October 30, 2008. Available online at <http://www.sf-planning.org/index.aspx?page=1829>.

customer purchase requests during nondrought and drought periods through 2030, including increased average annual diversions from the Tuolumne River, and would implement all key regional facility improvement projects.

- ***No Program Alternative.*** Under the No Program Alternative, the SFPUC would implement only those facility improvement projects driven by regulatory requirements or existing agreements with regulatory agencies. It would meet only the water quality goals of the WSIP and would fail to meet the other goals and objectives. It would endeavor to meet increasing customer purchase requests through the year 2030 by diverting additional Tuolumne River water only when available under CCSF's existing water rights.
- ***No Purchase Request Increase Alternative.*** The No Purchase Request Increase Alternative was designed to serve the wholesale customers the amount of water required under the existing Master Water Sales Agreement between the CCSF and each of the wholesale customers. It would thereby limit the ability of the system to meet customer purchase requests through 2030, but would include implementation of all key regional facility improvement projects.
- ***Aggressive Conservation/Water Recycling and Local Groundwater Alternative.*** Under the Aggressive Conservation/Water Recycling and Local Groundwater Alternative, the SFPUC would implement all of the key regional facility improvement projects, but would endeavor to serve the projected increase in customer purchase requests through 2030 only through additional conservation, water recycling, and local groundwater projects.
- ***Lower Tuolumne River Diversion Alternative.*** Under the Lower Tuolumne River Diversion Alternative, the SFPUC would implement all of the key regional facility improvement projects and would serve the projected increase in customer purchase requests through 2030 through diversions from the lower Tuolumne River near its confluence with the San Joaquin River. This alternative would include construction and operation of additional conveyance and treatment facilities to divert, transport, treat, and blend the new supply into the regional water system.
- ***Year-round Desalination at Oceanside Alternative.*** Under the Year-round Desalination at Oceanside Alternative, the SFPUC would implement all of the key regional facility improvement projects and would construct a 25-million-gallon-per-day (mgd) desalination plant in San Francisco to serve the projected increase in customer purchase requests through 2030.
- ***Regional Desalination for Drought Alternative.*** Under the Regional Desalination for Drought Alternative, the SFPUC would implement all of the key regional facility improvement projects and would partner with other Bay Area water agencies to construct and operate a regional desalination plant that would provide the SFPUC with supplemental supply during drought years.
- ***Modified WSIP Alternative.*** Under the Modified WSIP Alternative, the SFPUC would implement all of the key regional facility improvement projects, but would modify proposed system operations to minimize environmental effects. This alternative would include the implementation of key mitigation measures identified in the PEIR.

The alternatives analysis in the PEIR identified the Modified WSIP Alternative as the environmentally superior alternative. As described above, the Phased WSIP that was ultimately adopted by the SFPUC incorporates elements of the No Purchase Request Increase Alternative, the Aggressive Conservation/Water Recycling and Groundwater Alternative, and the Modified WSIP Alternative.

7.3 Project Alternatives Analysis

This section describes the process of developing a reasonable range of project alternatives for analysis in this EIR. Consistent with CEQA, the approach to alternatives selection for this EIR focused on identifying alternatives that: (1) could meet most of the basic objectives of the project while reducing one or more of its significant impacts, (2) could foster informed decision-making and public participation, and (3) could be feasibly implemented. The alternatives selection process considered multiple engineering alternatives developed by the SFPUC. Certain alternatives were eliminated from consideration based on their inability to meet most of the project's basic objectives, their infeasibility, or their inability to reduce the project's environmental impacts. These alternatives are briefly described in Section 7.5, Alternatives Considered but Rejected from Further Consideration.

7.3.1 Project Objectives

One of the WSIP goals is to meet customer water needs during both nondrought and drought periods, and two of the WSIP system performance objectives are to: (1) diversify water supply options during nondrought and drought periods; and (2) improve the use of new water sources and drought management strategies, including use of groundwater, recycled water, conservation, and transfers. The adopted WSIP includes the development of 20 mgd of conservation, recycled water, and groundwater within the SFPUC service area (10 mgd in the retail service area [i.e., within San Francisco] and 10 mgd in the wholesale service area [i.e., beyond San Francisco]).

The proposed project would contribute to WSIP goals through the development of recycled water as an alternative water supply for nonpotable uses in the SFPUC's retail service area within San Francisco, thereby benefiting the regional system by reducing demands for potable water. As discussed in Chapter 3, Section 3.3, Project Goals and Objectives, the objectives of the San Francisco Westside Recycled Project are to:

- Diversify the SFPUC's water supplies by developing recycled water
- Develop a new water supply in San Francisco that is both reliable and drought resistant
- Reduce the use of potable water and groundwater for irrigation and other nonpotable uses by supplying those demands with recycled water

The San Francisco Westside Recycled Water Project would provide approximately 2 mgd of recycled water to San Francisco's water supply, thereby increasing the water supply over existing conditions. This increase in water supply would improve the SFPUC's ability to deliver water to its customers in San Francisco during both drought and nondrought periods.

The SFPUC considers the proposed project to be a fundamental component in achieving the established WSIP performance objectives for diversifying water supply options during nondrought and drought periods and improving the use of new water sources and drought management strategies as discussed above. The WSIP objectives address the regional water system as a whole, and the SFPUC proposes the San Francisco Westside Recycled Water Project—in combination with other facility improvement projects identified in the WSIP—to fully meet these WSIP goals and objectives. The proposed project was designed to function in combination with the other WSIP projects to meet the overall level of service objectives for the SFPUC regional water system.

7.3.2 Significant Environmental Impacts

This section summarizes the impacts of the project, as analyzed in Chapter 5 of this EIR and in the Initial Study, and that were considered during the alternatives identification process. All project impacts would occur as a result of construction activities and were determined to be less than significant with mitigation (LSM), meaning that all significant project impacts could be reduced to a less-than-significant level through the implementation of mitigation measures identified in this EIR and the Initial Study.²

Cultural and Paleontological Resources. As discussed in Section 5.2, Cultural and Paleontological Resources, excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts on unknown archaeological resources, which would be a significant impact (Impact CP-2, LSM). Excavation required for construction of the recycled water treatment plant would extend into the underlying Colma Formation. The potential to encounter and adversely affect paleontological resources that may be found in that formation is considered a significant impact (Impact CP-3, LSM). Earthmoving activities could result in direct impacts on previously undiscovered human remains, particularly in the area adjacent to Golden Gate Cemetery (Impact CP-4, LSM). Ground disturbing activities along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park and a connection point to the Lincoln Park Pumping could uncover historic-period human remains associated with the Golden Gate Cemetery, a significant impact (Impact CP-5, LSM). Finally, without project-level mitigation for Impacts CP-1 through Impact CP-5, the project could result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains.

Air Quality. As discussed in Section 5.5, Air Quality, demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Construction activities could result in emissions of criteria air pollutants from the use of off-and on-road vehicles and equipment. In particular, the combined nitrogen oxides (NO_x) emissions from overlapping construction schedules of the project components could exceed the 54 pounds/day significance criterion. These NO_x emissions and fugitive dust emissions would result in significant impacts (Impact AQ-2, LSM).

Biological Resources. As discussed in Appendix A, Initial Study Section E.13, removal and/or relocation of trees with active nests, and construction noise and activity adjacent to such trees during the bird nesting season, could result in nest abandonment, destruction, injury, or mortality of nestlings and disruption of reproductive behavior during the breeding season (Impact BI-1, LSM). Also, these activities could result in the death and/or injury of roosting and breeding special-status bats if roost sites occur in vegetation that would be removed (Impact BI-1, LSM). Areas included in the project (Route 35/Skyline Boulevard, the Harding Road staging area, near Metson Lake and Lloyd Lake, and Central Reservoir) are near locations where California red-legged frogs and western pond turtle are known to occur (presently or historically) or with suitable habitat available. The potential for the project to result in injury or mortality to red-legged frog or western pond turtle during project construction and implementation is considered a significant impact (Impact BI-1, LSM). The contribution of the proposed project to significant cumulative biological resources impacts could be considerable, due to the project's potential to cause

² As discussed in Chapter 6, Section 6.1, Growth-Inducing Impacts, the project would contribute to the WSIP's growth-inducement potential and associated significant and unavoidable *indirect* effects of growth. Alternatives that would reduce or avoid indirect effects of growth were evaluated in the WSIP PEIR (including the No Program and No Purchase Request Increase Alternatives described in Section 7.2).

significant, project-specific impacts on the western pond turtle, California red-legged frog, special-status and migratory birds, and special-status bats (Impact C-BI-1, LSM).

7.3.3 Approach to Alternatives Selection

The alternatives selection process for the project was guided, in part, by the magnitude and severity of the impacts identified above. The analysis focuses on alternatives that could:

- Lessen or avoid accidental discovery of unknown paleontological resources during construction;
- Lessen or avoid short-term construction-phase disturbance to special-status birds, bats, and amphibians;
- Lessen or avoid short-term construction-phase fugitive dust and criteria pollutant emissions.

7.3.4 Selected CEQA Alternatives

This section describes the project alternatives that were selected and analyzed in accordance with CEQA Guidelines Section 15126.6(a). The two alternatives to the proposed project selected for detailed analysis in this EIR are:

- Alternative A: No Project Alternative
- Alternative B: Project Design Alternative
- Alternative C: Reduced Project Alternative

The alternatives evaluation process (described in Section 7.5, Alternatives Considered but Rejected from Further Consideration) included evaluation of potential environmental effects; input from the Project Alternatives Workshop Series (PAWS) held from November 2010 to February 2011; and comment from the public scoping periods (see Section 2.4, Environmental Review Process). Thus, the project, as proposed, avoids the potential for environmental effects other than those described above. Because the project results in few significant effects, only two alternatives were necessary to represent a 'reasonable range of alternatives'.

Table 7-1 provides a brief description of these alternatives and highlights how they differ from the proposed project. This section also evaluates the impacts of the selected alternatives relative to those of the proposed project. Since the alternatives are conceptual, the evaluation is based on the available information and reasonable assumptions about how each alternative would be implemented. For each alternative, this section presents the following:

- A description of the alternative, including the rationale for its selection, and associated facility improvements and auxiliary components
- An evaluation of the alternative's ability to meet project goals and objectives
- Analysis of the environmental impacts of each alternative compared to those of the proposed project

Table 7-1 also summarizes the environmental impacts of the selected alternatives compared to those of the proposed project. This table presents the significant impacts of the proposed project as well as less-than-significant impacts whose severity would be different under the project alternatives than under the proposed project. Table 7-1 does not include less-than-significant impacts of the proposed project that would have the same significance determination and/or impact severity as those of the project alternatives.

**TABLE 7-1
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES**

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
<i>Description</i>	<p>Recycled water treatment and storage at the Oceanside WPCP; storage and distribution facilities at the Golden Gate Park Central Reservoir.</p> <p>Includes staging areas at the Oceanside WPCP, Zoo Overflow Parking, Zoo Road, and Harding Road.</p> <p>Distribution pipeline route between the Oceanside WPCP and Central Reservoir would include Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard.</p> <p>Operational capacity to serve peak-day demands of up to 5 mgd (or 2 mgd annual average).</p>	<p>Recycled water treatment, storage, and distribution facilities would not be constructed. 1.6 mgd of recycled water would not be produced or delivered.</p>	<p>Co-locates the treatment, storage, and pumping facilities at the San Francisco Zoo overflow parking lot instead of the Oceanside Water Pollution Control Plant and Central Reservoir, respectively.</p> <p>Excludes Harding Road staging area.</p> <p>Modifies distribution pipeline to avoid Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard.</p> <p>Distribution pipeline would extend from treatment and storage plant at San Francisco Zoo overflow parking lot to Wawona Street, then east to 34th Avenue and north to the point of connection in Golden Gate Park. North of Golden Gate Park, the pipeline would be the same as the proposed project.</p> <p>Extends the overall project construction schedule duration by including sequenced, staggered construction of treatment, pumping, storage, and pipeline facilities, and reducing concurrent construction (overlapping phases) of facilities.</p> <p>Operational capacity to serve peak-day demands of up to 5 mgd (or 2 mgd annual average).</p>	<p>Recycled water treatment and storage at the Oceanside WPCP; upgrade of existing storage and distribution facilities at the Golden Gate Park Central Reservoir. However, the recycled water treatment facility and storage at the Oceanside WPCP would be somewhat smaller than under the proposed project and new storage and distribution facilities at the Golden Gate Park Central Reservoir would not be required.</p> <p>Includes staging areas at the Oceanside WPCP, Zoo Overflow Parking, Zoo Road, and Harding Road.</p> <p>Distribution pipeline route between the Oceanside WPCP and Central Reservoir would include Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard. Distribution pipelines would not be required north of the Golden Gate Park Central Reservoir.</p> <p>Operational capacity to serve peak-day demands of up to 3.8 mgd (or 1.7 mgd annual average).</p>
<i>Ability to Meet Project Sponsor's Objectives</i>	Meets all of the Project Objectives	Would not meet any of the Project Objectives	Meets all of the Project Objectives	Meets all of the Project Objectives; partially meets the WSIP goals and objectives

TABLE 7-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
IMPACTS				
Cultural and Paleontological Resources				
<i>Archaeological Resources</i>	<p>Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5. (Less than Significant with Mitigation)</p> <p>Excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts on unknown archaeological resources.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on unknown archaeological resources. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by reducing excavation requirements at the Oceanside WPCP and Central Reservoir, and eliminating construction of pipelines north of the Central Reservoir; thereby reducing the potential to expose and cause impacts on unknown archaeological resources. (Less than Significant with Mitigation)</p>
<i>Paleontological Resources</i>	<p>Impact CP-3: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature. (Less than Significant with Mitigation)</p> <p>At the recycled water treatment plant site, excavation would extend approximately into the underlying Colma Formation, which has the potential to include paleontological resources.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>Eliminates potential impacts to paleontological resources associated with proposed treatment plant construction by avoiding excavation in the Colma formation. (Less than Significant)</p>	<p>Decreased</p> <p>Reduces excavation requirements at the Oceanside WPCP; therefore, reduces potential impacts to paleontological resources associated with proposed treatment plant construction and excavation in the Colma formation. (Less than Significant with Mitigation)</p>
<i>Human Remains</i>	<p>Impact CP-4: The proposed project could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)</p> <p>Earthmoving activities associated with project construction could result in direct impacts on previously undiscovered human remains.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on human remains, if present. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced reducing excavation requirements at the Oceanside WPCP and Central Reservoir and eliminating construction of pipelines north of the Central Reservoir, reducing potential to expose and cause impacts on human remains, if present. (Less than Significant with Mitigation)</p>

TABLE 7-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Cultural and Paleontological Resources (cont.)				
<i>Human Remains</i>	<p>Impact CP-5: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)</p> <p>Ground disturbing activities associated with construction in the vicinity of the Golden Gate Cemetery site has the potential to disturb human remains, if present.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would be avoided. (No Impact)</p>	<p>No Change</p> <p>Ground disturbing activities associated with construction in the vicinity of the Golden Gate Cemetery site would be the same as the proposed project. (Less than Significant with Mitigation)</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur in the vicinity of the Golden Gate Cemetery site; therefore, the potential to disturb human remains, if present, would be avoided. (No Impact)</p>
<i>Cumulative Impacts</i>	<p>Impact C-CP: The proposed project could result in cumulatively considerable impacts related to historical, archeological, or paleontological resources or human remains. (Less than Significant with Mitigation)</p> <p>Without project-level mitigation for Impact CP-1 through Impact CP-5, the project could result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains.</p>	<p>No Impact</p> <p>Earth disturbing activities would not occur; potential impacts to unknown cultural resources would not occur and would not contribute to any cumulative cultural resources impact. (No Impact)</p>	<p>Decreased</p> <p>The area of construction activities is slightly reduced by consolidating treatment and storage facilities to one area, slightly reducing potential to expose and cause impacts on cultural resources, if present. Potential effects to paleontological resources would be avoided. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>The area of construction activities is lightly reduced reducing excavation requirements at the Oceanside WPCP and Central Reservoir and eliminating construction of pipelines north of the Central Reservoir, reducing potential to expose and cause impacts on cultural resources, if present. Potential effects to paleontological resources would be avoided. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>
Air Quality				
<i>Construction Emissions</i>	<p>Impact AQ-2: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. (Less than Significant with Mitigation)</p> <p>Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute</p>	<p>No Impact</p> <p>Activities associated with emission of fugitive dust or criteria pollutants would not occur; potential air quality impacts would be avoided. (No Impact)</p>	<p>Decreased</p> <p>Concurrent phased construction of multiple facilities simultaneously would be reduced. Therefore, associated fugitive dust and criteria pollutant emissions during staggered sequential construction activities emissions may not exceed regulatory thresholds. (Less than Significant or Less than Significant with Mitigation)</p>	<p>No Change</p> <p>The maximum daily average criteria pollutant emissions would be similar to the proposed project. But, the alternative would reduce the overall total emissions since overall construction would be reduced. (Less than Significant with Mitigation)</p>

TABLE 7-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Air Quality (cont.)				
	particulate matter into the local atmosphere. Furthermore, the combined NOx emissions from overlapping construction schedules of the project components could exceed the 54 pounds/day significance criterion.			
Biological Resources				
<i>Special-status Species</i>	<p>Impact BI-1: The project would potentially have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Department of Fish and Wildlife Service. (Less than Significant with Mitigation)</p> <p>Removal and/or relocation of trees with active nests, and construction noise and activity adjacent to such trees during the bird nesting season, could result in nest abandonment, destruction, injury, or mortality of nestlings and disruption of reproductive behavior during the breeding season. Also, these activities could result in the death and/or injury of roosting and breeding special-status bats. Injury or mortality to red-legged frog or western pond turtle could occur during project construction in the vicinity of Route 35/Skyline Boulevard, Harding Road, Metson Lake and Lloyd Lake, and Central Reservoir.</p>	<p>No Impact</p> <p>Construction related-activities that could affect special-status species would not occur. (No Impact)</p>	<p>Decreased</p> <p>Areas near known habitat for special-status amphibian species would be avoided. The pipeline would be located in areas with fewer trees than the proposed project; reducing but not avoiding potential impacts to special-status bird and bat species. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>Construction activities at the Central Reservoir would be reduced; thus construction noise and activity adjacent to trees that could include active nests and in areas where red-legged frog or western pond turtle could occur would occur for a shorter period of time than under the proposed project. (Less than Significant with Mitigation)</p>

TABLE 7-1 (Continued)
COMPARISON OF SIGNIFICANT IMPACTS OF PROJECT TO IMPACTS OF ALTERNATIVES

Impact	Proposed Project	Alternative A: No Project	Alternative B: Project Design Alternative	Alternative C: Reduced Project Alternative
Biological Resources (cont.)				
<i>Cumulative Impacts</i>	<p>Impact C-BI-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources. (Less than Significant with Mitigation)</p> <p>The contribution of the proposed project to significant cumulative biological resources impacts could be considerable, due to the project's potential to cause significant, project-specific impacts on the western pond turtle, California red-legged frog, special-status and migratory birds, and special-status bats.</p>	<p>No Impact</p> <p>Construction related-activities that could affect special-status species would not occur and would not contribute to any cumulative cultural resources impact. (No Impact)</p>	<p>Decreased</p> <p>Impacts to special-status amphibians is avoided and impacts to special-status bird and bat species is reduced compared to the proposed project. Thus, the potential to contribute considerably to a cumulative impact is less than under the proposed project. (Less than Significant with Mitigation)</p>	<p>Decreased</p> <p>Construction activities at the Central Reservoir would be reduced; thus construction noise and activity adjacent to trees that could include active nests and in areas where red-legged frog or western pond turtle could occur would occur for a shorter period of time than under the proposed project. (Less than Significant with Mitigation)</p>

Alternative A: No Project Alternative

CEQA Guidelines Section 15126.6(e) requires that EIRs include an evaluation of the No Project Alternative to provide decision-makers the information necessary to compare the relative impacts of approving the project and not approving the project. The No Project Alternative is defined as a continuation of existing conditions, as well as conditions that are reasonably expected to occur in the event that the proposed project is not implemented.

Description of the No Project Alternative

In the event that the SFPUC does not approve the San Francisco Westside Recycled Water Project, the proposed recycled water treatment, storage, and distribution facilities would not be constructed and 1.6 mgd of recycled water would not be produced or delivered to customers to offset potable demand. Existing irrigation demand at Golden Gate Park, Lincoln Park, and the Presidio, as well as lake fill would continue to be met with existing potable sources and groundwater.

Ability to Meet Project Objectives

The No Project Alternative would not meet any of the project objectives. If the project were not constructed, recycled water supplies would not be developed that would: diversify SFPUC's supply portfolio, provide reliable drought resistant supplies, or offset potable water and groundwater demand. It would also fail to meet the WSIP goals and objectives that rely directly on the contribution of the project to fulfill systemwide level of service objectives. The SFPUC would be limited in its ability to meet its adopted WSIP seismic delivery and water supply reliability goals, particularly in the San Francisco region. Implementation of the No Project Alternative would not provide recycled water to offset potable or groundwater demand, thereby curtailing SFPUC's ability to increase delivery reliability, improve the ability to maintain the system, and enhance sustainability of the system. The SFPUC would be limited in its ability to provide water to customers during both drought and nondrought periods and would not be able to fulfill part of its basic mission with respect to water supply reliability, which is "to serve San Francisco and its Bay Area customers with reliable, high-quality, and affordable water." Therefore, the No Project Alternative could jeopardize the SFPUC's ability to fully meet the WSIP goals and objectives adopted as part of approval of the WSIP pursuant to SFPUC Resolution 08-0200.

Environmental Impacts of the No Project Alternative Compared to those of the Project

Implementation of the No Project Alternative would result in continuation of current conditions and would therefore avoid all construction-related impacts of the project because no treatment, storage, pumping, or distribution facilities would be constructed. Therefore, there would be no potential to encounter previously unrecorded and buried (or otherwise obscured) archaeological deposits, archaeological resources, human remains (Impacts CP-2; CP-4; CP-5), or legally-significant prehistoric deposits within the Colma formation at the Oceanside Water Pollution Control Plant (WPCP) site (Impact CP-3); no construction activities resulting in fugitive dust or criteria pollutant emissions would occur (Impact AQ-2); and no construction-related effects or disturbance to special-status species including California red-legged frog, western pond turtle, nesting birds, and roosting bats would occur (BI-1 and C-BI-1).

Alternative B: Project Design Alternative

Description of Alternative B

The Project Design Alternative would combine alternate physical site locations, modify the proposed distribution pipeline to avoid Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard, exclude Harding Road staging, and reduce concurrent construction (overlapping phases) of facilities. This alternative would minimize or avoid potential impacts to cultural and biological resources, and air quality.³ The Project Design Alternative is described in more detail below.

Recycled Water Treatment Plant and Storage Facilities

Under this alternative, treatment, storage, and pumping facilities would be co-located at the San Francisco Zoo (Zoo) overflow parking lot instead of the Oceanside WPCP and Central Reservoir in Golden Gate Park, respectively. The Zoo Overflow Parking Lot is a 2.3-acre flat dirt field that is located between the Oceanside WPCP and the Zoo, east of the Great Highway. The Zoo Overflow Parking Lot is under the management of San Francisco Recreation and Parks Department (SFRPD). In addition, the Zoo Overflow Parking Lot is within the premises leased and managed by-the SF Zoological Society under the San Francisco Zoo Lease and Management Agreement between the SFRPD and the SF Zoological Society, which provides for SF Zoological Society to use the premises for Zoo purposes. Therefore, the SFPUC's use of the property would require the consent of the SFRPD and SF Zoological Society to modify the San Francisco Zoo Lease and Management Agreement and SFRPD consent to use the site for this purpose.

A recycled water treatment plant, including the same facilities as described in Section 3.4 of Chapter 3, Project Description, would be constructed at the Zoo overflow parking lot. In addition to the treatment building, an additional building for chemical storage tanks would be constructed. A new pipeline from the existing Oceanside WPCP would extend north along Great Highway, within the roadway or road shoulder, to the Zoo overflow parking lot to convey secondary effluent to the new treatment facility. Consistent with the proposed project, a parallel pipeline would be constructed in the same trench to convey the reverse-osmosis concentrate "brine" from the new treatment facility to the WPCP for discharge via the existing outfall, consistent with the proposed project. Maintenance events and chemical deliveries would be required for treatment processes at the Zoo overflow parking lot site.

The locations of all proposed storage would be consolidated at the Zoo overflow parking lot site, including the 50,000-gallon reservoir used during the treatment process and an 880,000-gallon wet well and buried storage reservoir. The hydroneumatic tanks previously required at the Central Reservoir site in Golden Gate Park would be located here as well, although the size of the tanks would be larger.

Transmission pumps (three or more up to 400 horsepower pumps), including active and standby units and additional space for future pumps) would be constructed in an enclosed pump house at the Zoo overflow parking lot that would provide hydraulic pressure to convey recycled water from the treatment facility to the Central Reservoir and to Lincoln Park. Consistent with the proposed project, the existing Central Reservoir and pump station (modified with a pressure-reducing valve) would still be used to

³ For the purposes of this analysis, all other project components presented in Chapter 3, Project Description would be included as described in the project description unless otherwise noted.

store and pump recycled water into the Golden Gate Park irrigation system. The four 100 horsepower pumps to pump recycled water to Lincoln Park would not be required.

Distribution Pipeline

The Project Design Alternative modifies the proposed distribution pipeline to avoid Route 35/Skyline Boulevard and streets adjacent to Sunset Boulevard. Under this alternative, a portion of the distribution line would extend from treatment and storage plant at the Zoo overflow parking lot to Wawona Street, then east to 34th Avenue and north to the point of connection in Golden Gate Park. North of Golden Gate Park, the pipeline would be the same as the proposed project.

Construction, Staging, and Access

Construction methods, excavation, dewatering, and equipment would be consistent with those described in Chapter 3, Project Description. Although this alternative would not generate spoils from demolition at the Oceanside WPCP, there is a significant amount of soil material of unknown quantity stockpiled on the south end of the site that would need to be offhauled and disposed of. A geotechnical investigation has not been conducted at this site.⁴

The Project Design Alternative excludes the Harding Road staging area, and includes staging for treatment facility construction within the 2.3-acre Zoo overflow parking lot site or the Zoo's maintenance yard. Access to the Zoo overflow parking lot would be via Great Highway.

The Project Design Alternative would extend the overall project construction schedule duration by including sequenced, staggered construction of certain activities for treatment, pumping, storage, and pipeline facilities, and for reducing concurrent construction (overlapping phases) of facilities. It is anticipated that construction of the treatment facility would take the longest and be ongoing for the duration of the project schedule, and would likely be concurrent with either the storage or distribution facility construction, although construction of the storage and distribution facilities would be staggered.

Ability to Meet Project Objectives

The Project Design Alternative would meet all of the project objectives. The Project Design Alternative would provide 1.6 mgd of recycled water that would diversify SFPUC's water supply portfolio with a reliable and drought resistant source while simultaneously offsetting potable demand of several major existing water customers. The Project Design Alternative would provide recycled water to further SFPUC's ability to offset potable demands to increase delivery reliability and improve the ability to maintain performance of the water supply system, as well as enhance sustainability in system activities. The Project Design Alternative would also enable SFPUC to meet customer purchase requests in nondrought and drought periods since recycled water is a drought resistant supply.

⁴ Kennedy/Jenks Consultants, *San Francisco Westside Recycled Water Project Alternatives Workshop Series: Evaluation of Alternatives*. Prepared for San Francisco Public Utilities Commission, February 11, 2011.

Environmental Impacts of Alternative B

The modified location of facilities under the Project Design Alternative would reduce or avoid some significant project-related effects. Co-location of the treatment, storage, and pumping facilities would: 1) eliminate the potential for impacts to paleontological resources associated with proposed treatment plant construction by avoiding the Colma formation (Impact CP-3), and reducing impacts to archaeological resources and human remains (Impacts CP-2 and CP-4); and 2) eliminating impacts to special-status amphibians, and reducing potential impacts to special-status birds and bats (BI-1 and C-BI-1). Impacts associated with archaeological resources, human remains, and special-status birds and bats would be reduced because the area of construction would be reduced by consolidating treatment and storage facilities within the 2.3 acre lot, rather than the 5-acre Central Reservoir site and portions of the 12-acre Oceanside WPCP site.

However, the Zoo currently has planned uses for this area to meet stringent animal isolation and testing requirements. These requirements and/or potential impacts to animal exhibits may also require restricting future treatment plant operations. Also, there could be increased construction and operational noise impacts to land uses near the Zoo site which is approximately 900 feet closer to Zoo facilities (Avian Conservation Center, Lowland Gorilla exhibit, bird sanctuary, proposed paddocks, or animal exhibits) than the proposed project site. Noise reduction measures (e.g., noise reduction berms) could be required. Additionally, construction of the secondary effluent conveyance and brine pipelines between the Oceanside WPCP and the Zoo overflow parking lot could result in an incremental amount of construction-related impacts, including increased truck traffic, closed road shoulders, and potentially lane detours along the Great Highway, rather than these effects occurring along Skyline Boulevard.

Construction along 34th Avenue would avoid construction near street trees along Route 35/Skyline Boulevard and Sunset Boulevard. These streets include a substantial number of mature trees that provide potential nesting habitat for birds and bats (Impacts BI-1 and C-BI-1). By moving the pipeline to streets with fewer trees, the potential effect on nesting birds and bats would be reduced compared to the proposed project, but not avoided. However, this alternative would result in potential increases in the effect of construction-related traffic because construction would occur within narrower roadways. This could result in increased truck traffic and possible lane closures, as well as detours along adjacent streets, compared to the proposed project (Impacts TR-2 and TR-3). However, similar to the proposed project, these effects would be less than significant based on the level of activity and the use of required traffic control regulations.

The modified construction schedule would reduce the daily average criteria pollutant emissions (Impact AQ-2), and thus could result in average daily emissions below the BAAQMD threshold. But, the alternative would not reduce the overall total emissions. Co-location of the recycled water storage reservoir at the Zoo overflow parking lot would require additional energy to pump recycled water over longer distances and elevations to the customers. As noted above, up to 400 horsepower pumps would be required; compared to 200 horsepower pumps under the proposed project. Typically, storage facilities are located closer to the customer to maximize hydraulic pressure and reduce pumping requirements. Because the pressure in the system would be designed to serve the Presidio, which is at a higher elevation than Golden Gate Park, the Park would be supplied at a higher than necessary pressure, which would result in a waste of energy.

In summary, the Project Design Alternative would avoid or reduce significant impacts to paleontological resources, biological resources, and air quality compared to the proposed project. The Project Design Alternative could result in greater noise impacts at the Zoo than the proposed project. It would result in a waste of energy to pump recycled water over longer distances and elevations.

Alternative C: Reduced Project Alternative

Description of Alternative C

The Reduced Project Alternative would eliminate Lincoln Park and the Presidio as recycled water customers; eliminating the need to construct and operate the new underground storage reservoir and pump station in Golden Gate Park's Central Reservoir, as well as distribution pipelines north of Central Reservoir. Further, the recycled water treatment plant and storage at the Oceanside WPCP would be somewhat smaller than the proposed project. Staging areas, construction methods, excavation, dewatering, and equipment would be consistent with those described in Chapter 3, Project Description. However, the overall duration of construction would be reduced. The operational capacity to serve peak-day demands would be up to 3.8 mgd (or 1.7 mgd annual average).

This alternative would minimize or avoid potential impacts to cultural and biological resources.⁵

Ability to Meet Project Objectives

The Reduced Project Alternative would meet all of the project objectives. However, because the operational capacity to serve peak-day demands would be up to 3.8 mgd (or 1.7 mgd annual average) rather than up to 5 mgd (or 2 mgd annual average), it would only partially meet the WSIP goals and objectives that rely directly on the contribution of the project to fulfill systemwide level of service objectives. If Alternative C were implemented, the SFPUC's water supply portfolio would have up to 1.2 mgd less of recycled water than it would under the proposed project.

As a result, the SFPUC may be unable to limit rationing to a maximum 20 percent systemwide reduction during drought periods, and customers in San Francisco would likely be subject to cutbacks in water supply because less water (-1.2 mgd) would be available compared to the project. Overall, with the reduction in recycled water supply that could occur under Alternative C, the SFPUC could be limited in its ability to provide water to customers during both drought and nondrought periods and may not be able to fulfill part of its basic mission with respect to water supply reliability, which is "to serve San Francisco and its Bay Area customers with reliable, high-quality, and affordable water." Further, the Reduced Project Alternative could jeopardize the SFPUC's ability to fully meet the WSIP goals and objectives, adopted as part of approval of the WSIP under SFPUC Resolution 08-0200. Per the adopted resolution, the SFPUC will reevaluate 2030 demand projections, regional water system purchase requests, and water supply options by 2018. If this alternative were adopted, the up to 1.2 mgd reduction in overall WSIP water supply goals would be included as part of the re-evaluation and taken into consideration as a part of the separate SFPUC decision regarding water deliveries after 2018. With the reduction in yield

⁵ For the purposes of this analysis, all other project components presented in Chapter 3, Project Description would be included as described in the project description unless otherwise noted.

from this project alternative, the SFPUC may need to revise the WSIP goals and objectives or develop additional water supply projects to make up the reduction in yield, depending on demand projections.

Environmental Impacts of Alternative C

The reduction of facilities under the Reduced Project Alternative would reduce or avoid some significant project-related effects. Reducing the size of the facilities located at the Oceanside WPCP and eliminating the need for new storage and pumping facilities at the Central Reservoir and pipelines north of the Central Reservoir would somewhat reduce the potential for impacts to paleontological resources associated with proposed treatment plant construction (Impact CP-3) and to archaeological resources and human remains (Impacts CP-2 and CP-4). Earth disturbing activities would not occur in the vicinity of the Golden Gate Cemetery site; therefore, the potential to disturb human remains, if present, would be avoided (Impact CP-5).

Eliminating the need for a new storage and pumping facility at the Central Reservoir would reduce the length of construction in this area. Therefore, potential noise and construction disturbance to special-status amphibians and special-status birds and bats (BI-1 and C-BI-1) would occur over a shorter period of time.

The maximum type and intensity of construction activities that could occur at the same time would be similar to the proposed project; however, the overall construction activities and schedule would be reduced. Therefore, the maximum daily average criteria pollutant emissions (Impact AQ-2) would likely be similar to the proposed project. But, the alternative would reduce the overall total emissions.

In summary, reducing the number and size of project components under the Reduced Project Alternative would reduce impacts to cultural resources and biological resources. All of the significant impacts of the proposed project would remain significant under the Reduced Project Alternative, with the exception with potential disturbance of human remains that may be present in the vicinity of the Golden Gate Cemetery, which would be avoided. The magnitude of significance would generally be less under the Reduced Project Alternative, and all of the impacts would be reduced to a less-than-significant level with implementation of the same mitigation measures specified in this EIR for the proposed project. However, this alternative would not meet WSIP level of service goals to the same extent as the proposed project.

7.4 Comparison of Alternatives

The CEQA Guidelines require the identification of an environmentally superior alternative to the proposed project (Section 15126.6[e]). If it is determined that the “no project” alternative would be the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other project alternatives (Section 15126.6[3]).

Construction impacts would be eliminated under the No Project Alternative. Thus, the No Project Alternative would be the environmentally superior alternative.

The Project Design Alternative would eliminate or decrease the intensity of significant construction-related impacts of the proposed project. It would avoid impacts to paleontological resources (Impact CP-3); reduce

impacts to archaeological resources and human remains (Impacts CP-2 and CP-4); reduce impacts to special-status birds and bats; avoid impacts to special-status amphibians (Impact BI-1 and C-BI-1), and reduce the average daily emissions contributing to air quality effects (Impact AQ-2) but not the total amount of emissions. However, this alternative would result in potential increases in the effect of construction-related traffic because construction would occur within narrower roadways. This could result in increased truck traffic and possible lane closures, as well as detours along adjacent streets, compared to the proposed project (Impacts TR-2 and TR-3). However, similar to the proposed project, these effects would be less than significant based on the level of activity and the use of required traffic control regulations. The Project Design Alternative could result in greater noise impacts at the Zoo than the proposed project. Additionally, under the Project Design Alternative, the system would require additional energy to operate larger pumps to pump product water to customers.

As described above, the Reduced Project Alternative would eliminate or decrease the intensity of significant construction-related impacts of the proposed project. It would avoid impacts to human remains that may be located in the vicinity of the Golden Gate Cemetery site (Impact CP-5); reduce impacts to paleontological resources, archaeological resources, and human remains (Impacts CP-2, CP-3, and CP-4); reduce impacts to special-status birds and bats and special-status amphibians (Impact BI-1 and C-BI-1). Maximum average daily emissions contributing to air quality effects (Impact AQ-2) would likely be the same as the proposed project, but the total amount of emissions would be reduced.

While the Project Design Alternative would meet the project objectives, the No Project Alternative would not. Additionally, the No Project Alternative and Reduced Project Alternative would not fully meet the WSIP goals and objectives that rely directly on the contribution of the project to fulfill systemwide level of service objectives and could jeopardize the SFPUC's ability to meet the adopted WSIP goals and objectives adopted as part of the WSIP under SFPUC Resolution 08-0200. Because the Project Design Alternative would produce the same amount of recycled water as the proposed project, it would be identical with regard to helping the SFPUC meet its adopted WSIP delivery, and water supply reliability goals.

Based on the evaluation above, the Reduced Project Alternative is considered to be the environmentally superior alternative among the project alternatives. The Reduced Project Alternative would decrease the intensity of construction-related impacts relative to those of the project. However, this alternative would not meet WSIP level of service goals to the same extent as the proposed project.

7.5 Alternatives Considered but Rejected from Further Analysis

The development of alternatives for the project EIR (described above) was based on the Project Alternatives Workshop Series (PAWS) held from November 2010 to February 2011, as well as comment from the public scoping period conducted in July 2014 (see Section 2.4, Environmental Review Process). The alternatives considered by the SFPUC included centralized treatment (Option 1); decentralized treatment (Option 2); and treatment with recharge (Option 3). In addition treatment with desalination (Option 4) was raised as part of the scoping period. These options are summarized in **Table 7-2** and described below. The discussion

**TABLE 7-2
SUMMARY OF ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION**

Potential Option	Description	Ability to Meet Project Objectives and Constraints on Implementation
Option 1. Centralized Treatment	Includes one water treatment facility consisting of combined Microfiltration (MF), Reverse Osmosis (RO), chemical, electrical and control spaces at the following locations: <ul style="list-style-type: none"> • California Army National Guard Readiness Center • Golden Gate Park w/o Visitor Center • Sunset Circle • Harding Road 	<ul style="list-style-type: none"> • Would meet all project objectives and WSIP level of service objectives • Some sites require additional land use agreements/negotiations with property owners; land uses could be inconsistent with existing uses; would result in new or additional impacts associated with biological resources, hazardous materials, traffic and circulation, aesthetics, land use, hydrology, or recreation • Significant impacts of the proposed project would not be avoided or lessened by use of these locations for storage, pumping, and distribution facilities
Option 2. Decentralized Treatment	Includes separate MF and RO treatment facilities at two sites, requiring conveyance facilities between sites and duplication of some facilities such as pumps, equalization tanks, chemical, electrical and control spaces. One of the sites would be at the WPCP and the other would be at one of the following locations: <ul style="list-style-type: none"> • Golden Gate Park • Harding Road • Various Locations at Oceanside WPCP 	<ul style="list-style-type: none"> • Would meet all project objectives and WSIP level of service objectives through provision of recycled water • Infeasible due to expanded project footprint, duplicative equipment needs and additional building materials, and higher costs • Would not avoid or lessen significant environmental effects of the project
Option 3. Treatment with Recharge	Centralized or decentralized treatment with treated water used for aquifer recharge via the one of the following: <ul style="list-style-type: none"> • Percolation into the Westside Basin Aquifer • Percolation subsequent to discharge into Lake Merced • Percolation from a treatment wetland 	<ul style="list-style-type: none"> • Would not meet project objective or WSIP level of service objectives because recharge water would not be directly or immediately available for potable offset • Insufficient space, inability to meet groundwater recharge regulations • Would not avoid or lessen significant environmental effects of the project
Option 4. Treatment with Desalination	The SFPUC would construct a small desalination plant to supplement or replace the water supply that would be provided by the San Francisco Westside Recycled Water Project.	<ul style="list-style-type: none"> • Would partially meet project objectives: <ul style="list-style-type: none"> – Would not diversify the SFPUC’s water supplies, by developing recycled water – Would develop a new water supply in San Francisco that is both reliable and drought resistant – Would not reduce offset the use of non/potable water and groundwater uses for irrigation and other nonpotable uses, it would not fulfill the objective to develop recycled water supplies. But not by supplying those demands with recycled water • Would not meet WSIP level of service objectives • New potentially significant impacts to marine biological resources and ocean water quality • Would not avoid or lessen significant impacts of the proposed project

TABLE 7-2 (Continued)
SUMMARY OF ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Potential Option	Description	Ability to Meet Project Objectives and Constraints on Implementation
Option 5. Treatment without Reverse Osmosis	Recycled water for the proposed project would be tertiary-treated instead of advanced-treated with microfiltration (MF)/reverse osmosis (RO) technology.	<ul style="list-style-type: none"> • Would partially meet project objectives: <ul style="list-style-type: none"> – Would diversify the SFPUC’s water supplies, by developing recycled water – Would develop a new water supply in San Francisco that is both reliable and drought resistant – However, demand for recycled water produced by the project would be reduced because proposed customers may not accept this tertiary treated water for all uses, and therefore, would not reduce offset the use of non/potable water and groundwater uses for irrigation and other nonpotable uses – May not fulfill the objective to develop recycled water supplies, but not by supplying those demands with recycled water • Would not meet WSIP level of service objectives • Would not avoid or lessen significant impacts of the proposed project

of the first three options presented below is based on the evaluation completed by Kennedy/Jenks Consultants for the SFPUC in 2011.⁶ As indicated in the table, in general, these options would not meet the project objectives or the WSIP Level of Service objectives because are infeasible due to critical engineering, implementation, or institutional flaws.

7.5.1 Option 1: Centralized Treatment

Nine potential treatment plant locations were identified by the SFPUC and PAWS participants. The initial screening process eliminated four sites: Harding Park Maintenance Yard, Herbst and Skyline, Fleishbacker Bath House, and the Great Highway Reclaimed Land due to conflict with existing projects, conflict with an existing lease, inadequate space, geotechnical design issues, complex building code compliance and safety, or issues with regulatory requirements and jurisdictional limitations.⁷ Following initial screening, five sites were carried forward for further engineering analysis as potential centralized treatment plant locations: the Zoo Overflow Parking Lot (discussed above), California Army National Guard (CA ARNG) Readiness Center (formerly known as Armory), Golden Gate Park without Visitor Center, Sunset Circle, and Harding Road. The most feasible and reasonable alternative site identified by SFPUC and the PAWS process, the Zoo overflow parking lot, is analyzed in Section 7.3, Project Alternatives Analysis.

Two options for the location of the treatment facility were evaluated at the CA ARNG Readiness Center site. In general, the construction and operational effects would be similar to the proposed project because the size/scale and operation would be similar to the proposed project; however, development of a

⁶ Ibid.

⁷ Ibid.

treatment facility at the CA ARNG Readiness Center would result in greater land use, traffic, and biological resource impacts than the project, and would not avoid the significant impacts of the project, with the exception of potential paleontological resources effects. Under this option, pipeline alignment options would be similar to the proposed project. Development of a facility at the CA ARNG Readiness Center would require negotiations between SFPUC and the California Army National Guard, which currently leases the land from the CCSF. This option would also require addition of an access road and could require more tree removal than the proposed project.

The Golden Gate Park without Visitor Center option would include siting of the recycled water treatment facility at the former Richmond-Sunset WPCP. This location was proposed for the project in the 2010 Notice of Preparation (NOP); however, in response to substantial public concern regarding land use compatibility, and due to other feasibility constraints associated with the distribution pipeline, this option is not considered further. Further, this option would not reduce significant impacts associated with the proposed project, with the exception of potential paleontological resources effects.

The SFPUC evaluated two options for the location of the treatment facility at the Sunset Circle site. Both options would have conflicts with existing uses at the site, would be highly visible from many public vantage points around Lake Merced, and could potentially conflict with plans proposed in the Lake Merced Watershed Report. Proximity to Lake Merced could also result in potential impacts to special-status amphibians, similar to the proposed project. Under this option, pipeline alignment options would be similar to the proposed project. Implementation could require the removal of a part of the recently installed Sunset Swales Low Impact Design demonstration project, resulting in new impacts to hydrology. Further, this option would not reduce significant impacts associated with the proposed project, with the exception of potential paleontological resources effects.

Construction of the treatment facility at the Harding Road would require relocation of the existing boathouse and modifications to the access road for chemical deliveries and maintenance access. There are geotechnical design concerns regarding development at this site, including high groundwater levels and bank stabilization that would need to be incorporated into the design. Further, the high visibility of the constructed facility from many public vantage points around the nearby lake would result in visual impacts. Proximity to Lake Merced could also result in potential impacts to aquatic habitat and special-status amphibians.

Several pipeline alignment options were considered for each centralized treatment facility to transport water from the treatment plant to Golden Gate Park facilities: the Old Great Highway and Outer Sunset (including a range of alignments between 37th and 47th Avenues) alignments were considered for the two CA ARNG Readiness Center options. In general, these pipeline alignments would result in impacts that are similar nature and scale compared to those of the proposed project.

The centralized treatment alternative meets all of the project objectives and the WSIP level of service objectives through provision of recycled water as a reliable, drought-resistant supply to offset potable demands for customers in west San Francisco; however due to feasibility issues, and potential to increase significant environmental impacts compared the proposed project, these options are not considered further.

7.5.2 Option 2: Decentralized Treatment

The SFPUC considered the potential for implementation of a decentralized treatment facility, which would separate treatment processes between two sites. However, SFPUC determined that a decentralized treatment facility would be infeasible because it would require: an expanded project footprint (approximately 15 percent greater construction footprint and 30 percent greater facility footprint, including new access roads), duplicate equipment, additional building materials, and higher costs. Furthermore, the initially screened sites identified by the public during the PAWS process (Option 1) all provide sufficient space to accommodate a centralized facility to avoid these expected additional impacts. Further, this option would not reduce significant impacts associated with the proposed project, with the exception of potential paleontological resources effects.

7.5.3 Option 3: Treatment with Recharge

Use of recycled water to recharge the Westside Basin Aquifer was identified during the PAWS process as a potential alternative to recycled water used directly for irrigation. Under this alternative, groundwater recharge and subsequent extraction would substitute conveyance and traditional (reservoir) storage under the proposed project. Four sites were evaluated by the SFPUC: Outer Sunset, Zoo Recharge Area, Lake Merced (with and without wetland treatment), and the west end of Golden Gate Park (with and without wetland treatment). These sites were screened based on groundwater basin capacity, diluent water quality, feasibility of treatment basin, and compatibility with other groundwater projects. The SFPUC identified critical engineering and implementation concerns with this option because all sites would have insufficient space to construct a treatment basin to treat the volume of recycled water required to serve identified recycled water customers and local hydrogeology indicates a potential loss of recharge water to the Pacific Ocean due to westerly groundwater flow. This option would fail to meet groundwater recharge regulations for residence time⁸, travel, and diluent water quality. This option also fails to meet the project objectives and WSIP level of service objectives because recharge would not be directly and immediately available for nonpotable uses. Further, this option would not reduce significant impacts associated with the proposed project, with the exception of potential paleontological resources effects and could result in additional impacts that would not occur under the proposed project, such as water quality effects.

7.5.4 Option 4: Treatment by Desalination

Under this option, the SFPUC would construct a small desalination plant at or near the Oceanside WPCP to provide treated saltwater to the same customers as the proposed project, using the same proposed pumping, storage, and distribution pipelines proposed by the current project. A desalination plant would include the similar land-based construction-related impacts as the exiting project for treatment facilities; however, desalination would also result in potential marine impacts during construction of the seawater intake system. Additionally, long-term operational effects would include impacts to marine biological resources from the seawater intake system (impingement and entrainment), and water quality impacts from the discharge of the brine generated by the desalination process. Areas of potential concern include temperature, dissolved oxygen, or salinity; possible localized changes in currents or in turbidity, due to

⁸ In groundwater, the length of time water remains underground before it is extracted or discharged.

the presence of seawater intake or brine discharge; and possible changes in dispersion of sewage plume effluent due to added discharge of brine effluent from the desalination plant. As such, a desalination project would require a baseline study to establish offshore conditions prior to desalination plant startup; and perform quarterly marine water quality/biological monitoring in accordance with the San Francisco Bay Regional Water Quality Control Board (RWQCB) requirements during operational phase. Although desalination would provide a reliable, drought-resistant source of potable water that would diversify SFPUC's water supply portfolio, it is not recycled water, which is a project and WSIP level of service objective. Further, this option would not reduce significant impacts associated with the proposed project.

7.5.5 Option 5: Treatment without Reverse Osmosis

This option would include the same facilities as the proposed project; however, the secondary effluent from the Oceanside WPCP would not be advance-treated with microfiltration (MF)/reverse osmosis (RO) technology. There are many considerations in identifying the most appropriate treatment technology, including volume of effluent, service capacity, cost, effluent contaminants and treatment goals, regulatory requirements, and end use. One option could include tertiary treatment instead of advanced treatment. During tertiary treatment, secondary effluent goes through microfiltration/ultrafiltration (MF/UF) membranes. MF/UF are best used for the removal of suspended solids, Giardia, Cryptosporidium and the reduction of turbidity. Tertiary treated water meets Title 22 standards and could be used for the proposed irrigation application. Other advanced treatment alternatives include ozonation, and/or bioactivated carbon (BAC). These processes have some benefits that make them competitive with RO treatment. For example, the combination of ozone and BAC allows for significant transformation of effluent organic matter, trace organic contaminant oxidation, and efficient biodegradation of bulk and trace organics. Limitations on these treatment options include inability to reduce total dissolved solids and remove toxic organic carbon. RO is the most advanced filtration process and provides substantial removal of bulk organic matter, nearly complete trace organic contaminant removal, and significant reductions in total dissolved solids. The primary water quality parameters for the Oceanside WPCP are ammonia and chronic toxicity, which could be addressed through tertiary treatment and RO/MF.

In addition to treatment parameters, the regulatory requirement, as well as customers and end use are considered for this project. Based on coordination with SFRPD, SFPUC would not be able to provide non-advanced treated recycled water to the lakes or other sensitive areas. In the event that the project did not produce advanced treated recycled water, average annual demand would decrease by approximately 20 percent (see Table 3-1), and SFRPD would not likely be a viable customer. This option would fail to meet the WSIP goals and objectives that rely directly on the contribution of the project to fulfill systemwide level of service objectives. This option would not directly offset any of the significant environmental impacts associated with the proposed project. Therefore, this option is not considered further.

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CHAPTER 8

List of Preparers

A list of persons who prepared various sections of the Environmental Impact Report (EIR), prepared significant background materials, or participated to a significant degree in preparing the EIR is presented below.

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PLACE
POSTAGE
HERE

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PLEASE CUT ALONG DOTTED LINES

PLEASE RETURN THIS POSTCARD TO REQUEST A COPY OF
THE FINAL ENVIRONMENTAL IMPACT REPORT

(NOTE THAT THE DRAFT EIR PLUS THE RESPONSES TO COMMENTS
DOCUMENT CONSTITUTE THE FINAL EIR)

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

SFPUC San Francisco Westside Recycled Water Project,

Planning Department Case No. 2008.00912E

Check one box: Please send me a copy of the Final EIR on CD.
 Please send me a paper copy of the Final EIR.

Signed: _____

Name: _____

Street: _____

City: _____ State: _____ Zip: _____

APPENDIX A

Notice of Preparation and Scoping Report

This appendix includes:

- **San Francisco Public Utilities Commission, San Francisco Westside Recycled Water Project Environmental Impact Report, Scoping Report, August 2014**

Includes the full published Notice of Preparation for the currently proposed Westside Recycled Water Project, dated July 16, 2014, and associated scoping meeting materials and transcripts from the scoping meeting convened on July 29, 2014, as well as copies and summaries of public comments received during the scoping period (July 16, 2014 through August 15, 2014).

The 2014 Notice of Preparation included an Initial Study Checklist identified resource topics that were determined not to apply to the proposed project and topics where the project would have no impact or less-than-significant impact (land use, aesthetics, population and housing, greenhouse gases, wind and shadow, recreation, utilities and service systems, public services, geology and soils, hazards and hazardous materials, minerals, and some criteria related to traffic, air quality, noise, and hydrology); or less-than-significant with mitigation (biological resources). For potential biological resource impacts identified as significant in the Initial Study, corresponding mitigation measures were included that would reduce these impacts to a less-than-significant level.

- **San Francisco Public Utilities Commission, San Francisco Westside Recycled Water Project Environmental Impact Report, Scoping Report, March 2011**

Includes the full published Notice of Preparation for the previously proposed Westside Recycled Water Project, dated September 8, 2010, and associated scoping meeting materials and transcripts from the scoping meeting convened on September 23, 2010, as well as copies and summaries of public comments received during the scoping period (September 8, 2010 through October 13, 2010).

- **San Francisco Public Utilities Commission, San Francisco Westside Recycled Water Project Environmental Impact Report, Scoping Report, September 2008**

Includes the full published Notice of Preparation for the previously proposed Westside Recycled Water Project, dated May 27, 2008, and associated scoping meeting materials and transcripts from the scoping meetings convened on June 16 and 17, 2008, as well as copies and summaries of public comments received during the scoping period (May 27, 2008 through July 7, 2008).

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APPENDIX A1

San Francisco Public Utilities Commission, San Francisco Westside Recycled Water Project Environmental Impact Report, Scoping Report, August 2014

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San Francisco Public Utilities Commission
San Francisco Westside Recycled Water Project
Environmental Impact Report

Final Scoping Report

August 2014

Prepared for the San Francisco Planning Department

Prepared by ESA

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San Francisco Public Utilities Commission San Francisco Westside Recycled Water Project Environmental Impact Report Scoping Report

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1.0 Introduction and Background

1.1 Introduction

The San Francisco Planning Department is the lead agency for implementation of California Environmental Quality Act (CEQA) requirements for all projects sponsored by the City and County of San Francisco (CCSF) or conducted within San Francisco. The San Francisco Planning Department is preparing a Draft Environmental Impact Report (EIR) for the San Francisco Public Utilities Commission's (SFPUC's) proposed San Francisco Westside Recycled Water Project (project or proposed project). The Draft EIR, which will assess the potential impacts of the project on the physical environment, is being prepared in accordance with CEQA. CEQA requires the preparation of an EIR when a proposed project could significantly affect the physical environment.

As part of the Draft EIR process, the San Francisco Planning Department conducted a public scoping effort in July and August, 2014, soliciting comments from interested parties, State and resource agencies, and the public to help determine the scope of the Draft EIR. This report describes the scoping process and summarizes the public and regulatory agencies' comments received during the scoping period.

1.2 Notice of Preparation

The San Francisco Planning Department published a revised Notice of Preparation (NOP) on July 16, 2014, announcing the preparation of the Draft EIR for the project under CEQA (see Appendix A). The NOP summarized the project objectives and provided a description of the proposed project. The NOP also described the scoping process and included information on the public scoping meeting. The scoping process, notification procedures, and outcome of the scoping meeting are described below, following a brief description of the proposed project.

1.3 San Francisco Westside Recycled Water Project

The primary purpose of the project is to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The San Francisco Public Utilities Commission (SFPUC) initially proposed the project as described in a Notice of Preparation (NOP) published by the San Francisco Planning Department in June 2008; SFPUC subsequently revised the project and the San Francisco Planning Department published a second NOP in September 2010. The SFPUC has again modified the proposed project, as described in this revised NOP; key features of the project as revised are summarized below:

- The proposed recycled water treatment plant would be located at the SFPUC's Oceanside Water Pollution Control Plant (WPCP), and within a portion of the adjacent California Army National Guard site.
- Recycled water produced at this facility would be used in Golden Gate Park (including the Panhandle portion of the park and fill for Golden Gate Park Lakes), Lincoln Park Golf

Course, and various areas of the Presidio, primarily for landscape irrigation. Storage and distribution facilities at the former Richmond/Sunset WPCP in Golden Gate Park and a storage facility within the Presidio are no longer proposed. Instead, the existing Central Reservoir and pump station in Golden Gate Park would be expanded to include additional storage and pumping capacity.

- A transmission pipeline would be constructed between the proposed recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park, primarily along 36th Avenue; transmission pipelines also would be constructed between the Central Reservoir and Lincoln Park and the Presidio, as well as adjacent to the Golden Gate Park Panhandle. Pipelines would not be constructed along the Great Highway between the Oceanside WPCP and the former Richmond-Sunset WPCP site.

The SFPUC first proposed the San Francisco Westside Recycled Water Project in June 2008 with the release of an NOP and scoping meetings by the San Francisco Planning Department. This first proposal was to construct a recycled water treatment plant at the Oceanside Water Pollution Control Plant (WPCP) that would supply recycled water to Golden Gate Park, Lincoln Park, the San Francisco Zoo, and other smaller parks. The project did not include reverse osmosis treatment of the water. The SFPUC subsequently determine that (1) reverse osmosis was a necessary component of the project, and (2) the original site location at the Oceanside WPCP was too small to include reverse osmosis treatment. The SFPUC then proposed to construct the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park that would supply recycled water to Golden Gate Park, Lincoln Park, and the Presidio Golf Course. The San Francisco Planning Department issued a second NOP in September 2010 and held scoping meetings on this second proposal. Substantial public comment was received following the release of the 2010 NOP, with many commenters expressing concern about the proposed location of the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park. Following the NOP scoping period, the SFPUC held a series of public workshops to inform the public of the planning process that led to the 2010 proposed project description and to solicit feedback on other potential project sites. As a result of that process, the SFPUC identified five sites as technically feasible, including the proposed Golden Gate Park site. Over the following year, the SFPUC evaluated the feasibility of the five potential project sites. This evaluation process resulted in the project as now proposed.

The primary purpose of the project, however, is the same: to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The revised project would meet the current demands of several SFPUC customers with substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and various areas in the Presidio. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers.

Effluent (treated to secondary treatment standards at the Oceanside WPCP) would be conveyed to the recycled water treatment plant to be processed to advanced tertiary standards, and this highly

treated recycled water would be used at Golden Gate Park (including the Panhandle portion of the park), the Lincoln Park Golf Course, and various areas in the Presidio (including the Presidio Golf Course, National Cemetery, and the Public Health Services District), primarily for landscape irrigation. Recycled water would also be used for lake fill and toilet flushing at California Academy of Sciences in Golden Gate Park.

The revised project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. The project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives.¹

2.0 Purpose of the Scoping Process

The purpose of the scoping process is to solicit input from the public, interested parties, and agencies with discretionary authority over the project on the appropriate scope, focus, and content of the Draft EIR. The San Francisco Planning Department will consider all of the input received during the scoping process in the preparation of the Draft EIR.

The Draft EIR will describe the existing environmental conditions of the area that could be affected by the proposed project and evaluate the potential effects of the project on the environment in accordance with CEQA. The comments provided by the public and agencies during scoping will help the San Francisco Planning Department identify pertinent issues, methods of analyses, and level of detail that should be addressed in the Draft EIR. The scoping comments will also provide input for development of a reasonable range of feasible alternatives to be evaluated in the Draft EIR.

The scoping comments will augment the information developed by the EIR project team, which includes specialists in each of the environmental subject areas covered in the EIR. This combined input will result in an EIR that is both comprehensive and responsive to issues raised by the public and regulatory agencies, and that meets CEQA requirements.

In addition to facilitating public and regulatory agency input on the scope and focus of the Draft EIR, scoping allows the San Francisco Planning Department to explain the EIR process to the public and to identify additional opportunities for public comment and public involvement during the EIR process.

¹ San Francisco Planning Department, *Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008.

3.0 Notification of Scoping

The scoping period began on July 16, 2014 with the issuance of the NOP. The San Francisco Planning Department held a scoping meeting on July 29, 2014 and accepted written comments through August 15, 2014. The following methods were used to notify agencies and the public about the availability of the NOP, the scoping meeting dates and locations, and details on the comment process:

- **Mailing List.** A mailing list was compiled, including approximately 5,300 contacts for federal, state, regional, and local agencies; federal, state, regional, and local elected officials; regional and local interest groups; member agencies of the Bay Area Water Supply and Conservation Agency; other potentially affected water districts; SFPUC Community Advisory Committee members; information repositories; media contacts; and property owners and residents within 300 feet of the proposed project limits.
- **Notice of Preparation of an EIR and Notice of Public Scoping Meeting.** Copies of the NOP were distributed via certified mail to responsible and trustee agencies and 15 copies were delivered to the State Clearinghouse (See Appendix A for a copy of the NOP and NOP Notice of Availability). In addition, a notice of availability of the NOP was distributed via first-class mail to the entire mailing list (approximately 5,300 addressees):
 - **Locations to obtain a copy of the NOP.** The NOP was posted to the San Francisco Planning Department’s website (<http://www.sf-planning.org/index.aspx?page=1829>). A printed copy of the NOP was also provided to anyone who requested it from the San Francisco Planning Department.
 - **Notice to entire mailing list.** Notifications of the scoping meeting, including information on the project EIR and the scoping process, and instructions on how to obtain a copy of the NOP and provide public comment were mailed to the entire project mailing list approximately two weeks prior to the scoping meeting.
 - **Legal notices.** Notices of the scoping meeting and information on how to obtain a copy of the NOP and provide public comment were placed in the legal classified section of the San Francisco Chronicle (07/16/14).

Table 1 presents an itemized list of mailings.

TABLE 1
NUMBER OF RECIPIENTS ON MAILING LIST FOR NOP AND NOTICE OF SCOPING MEETING

Category	Number of NOP Recipients	Number of NOP Notice of Availability Recipients
Owners and Occupants	0	4,894
Wholesale Customers	3	48
Other Agencies	10	39
SFPUC Citizen's Advisory Committee	0	15
Other Interested Parties	1	300
Responsible and Trustee Agencies	0	16
Local and Bordering Jurisdictions	0	10
Media, Libraries, and Individuals	9	37
TOTAL	23	5,359

4.0 Scoping Meeting

The San Francisco Planning Department held a public scoping meeting on July 29, 2014 at the Ortega Branch Library (3223 Ortega Street, San Francisco), approximately two weeks after publication of the NOP. The objective of the meeting was to solicit input from the public on potential environmental impacts of the proposed project, the appropriate scope of the EIR, potential mitigation measures, and potential alternatives to the proposed project.

The meeting included presentations on the environmental review process and the proposed project, followed by a formal public comment period. Attendees interested in presenting verbal comments submitted speaker cards and were allowed sufficient time to speak. The meeting concluded with closing remarks. Appendix B includes copies of the scoping meeting presentation, handouts, comment/speaker cards, and sign-in sheets.

The total attendance for the scoping meeting was 6 (based on the meeting sign-in sheets and excluding CCSF and EIR consultant staff). Meeting attendees primarily consisted of private citizens residing near the proposed project area. A total of 2 participants provided verbal comments at the meeting. The scoping meeting was recorded by a certified court reporter who provided verbatim written transcripts of the proceedings. The transcripts can be found in Appendix C of this report.

5.0 Overview of Comments Received

Agencies and members of the public utilized several different methods of providing input: verbal comments during the scoping meeting, written comments submitted at the scoping meeting, or written comments sent via U.S. mail, email and fax. Table 2 lists agencies and other parties that provided written comments in response to the NOP, listed by comment letter number. Table 3 lists individuals that commented at the scoping meeting, listed in alphabetical order by last name. Copies of comment letters and emails are located in Appendix D, while scoping meeting transcripts are located in Appendix C.

TABLE 2
INDEX OF WRITTEN COMMENTS

Comment Letter No.	Commenter
1. Agencies	
1A	National Park Service (Nancy Horner)
1B	Presidio Trust (Craig Middleton)
1C	State Water Resources Control Board (Ahmad Kashkoli)
2. Organizations	
2A	Golden Gate Audubon Society (Dan Murphy)
2B	Golden Gate Audubon Society (Dan Murphy)
3. Individuals	
3A	Glenn Rogers
3B	Steve Lawrence

TABLE 3
INDEX OF VERBAL COMMENTS

Verbal Comment No.	Commenter	Organization Name (if applicable)
4A	Joan Girardot	Coalition for San Francisco Neighborhoods
4B	Katherine Howard	Golden Gate Park Preservation Alliance

6.0 Summary of Comments by Subject Area

Table 4 provides a summary of scoping comments by commenter. (Appendices C and D also contain the commenter correspondence and copies of the scoping meeting transcripts.)

TABLE 4
SUMMARY OF COMMENTS BY COMMENTOR

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
1A	National Park Service (Nancy Hornor)	Page 1 Paragraph 1-2	Expresses interest in project which lies adjacent to lands managed by NPS.	Project Description	
1A	National Park Service (Nancy Hornor)	Page 1 Paragraph 3-4	Expresses concern about contaminants of emerging concern.	Project Description Initial Study, Hydrology and Water Quality Impact HY-2	
1B	Presidio Trust (Craig Middleton)	Page 1 Paragraph 1	Expresses support for SFPUC's effort to bring recycled water to San Francisco.		Expresses support for use of recycled water in San Francisco.
1B	Presidio Trust (Craig Middleton)	Page 1 Paragraph 2	Describes the purpose of the Presidio Trust and relation to the proposed project.	Project Description	
1B	Presidio Trust (Craig Middleton)	Page 1 Paragraph 4	Requests that compliance with Presidio Trust's permit to use recycled water be addressed.	Cumulative Projects	
1B	Presidio Trust (Craig Middleton)	Page 2 Paragraph 1	Recommends confirming whether additional pumping facilities would be necessary.	Project Description	
1B	Presidio Trust (Craig Middleton)	Page 2 Paragraph 2	Evaluate impacts of constituents in recycled water on water bodies.	Initial Study, Hydrology and Water Quality Impact HY-2	
1C	State Water Resources Control Board (Ahmad Kashkoli)	Page 1-8	Describes the Clean Water State Revolving Fund Program and requirements of the program.		SFPUC is not applying for funding from the Clean Water State Revolving Fund Program
2A	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 1 Page 2 Paragraph 4	Expresses support for the Project.		Supports the Project.
2A	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 2-3 Page 2 Paragraph 1-6 Page 3 Paragraph 1, 4	Address impacts on bird species and incorporate mitigation measures for bird species affected.	Initial Study, Biological Resources Impact BI-1 and Impact BI-4	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2B	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 3 Page 6 Paragraph 4	Expresses support for the use of recycled water.		Supports the use of recycled water.
2B	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 3	Supports the extension of recycled water to more SFPUC customers.	Project Description Alternatives	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 4	Recommends increasing the delivery capacity of the Project.	Project Description Alternatives	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 1 Paragraph 4 Page 2 Paragraph 1	Recommends using the largest diameter pipes discussed in the NOP-IS.	Project Description	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 2 Paragraph 2-4, 6-8 Page 3 Paragraph 1-3	Expresses concern about the visibility of structures being built for the Project, and provides mitigation measures.	Initial Study, Aesthetics Impact AE-1	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 2 Paragraph 5 Page 6 Paragraph 3	Recommends a vegetation plan be developed for each new building.	Initial Study, Biological Resources, Impact BI-1 and Impact BI-4	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 3 Paragraph 4-5, 6 Page 4 Paragraph 1-2, 3-4 Page 5 Paragraph 1, 4-5 Page 6 Paragraph 1	Incorporate mitigation measures for impacts to bird species, address quality of information used to analyze bird species, and incorporate specific documentation for records of bird species.	Initial Study, Biological Resources Impact BI-1 and Impact BI-4	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 5 Paragraph 2	Disagrees with impact determination on amphibians.	Initial Study, Biological Resources Impact BI-1	
2B	Golden Gate Audubon Society (Dan Murphy)	Page 5 Paragraph 3 Page 6 Paragraph 2-3	Recommends appropriate duration for bird nesting, and questions impact determinations for some bird species.	Initial Study, Biological Resources Impact BI-1, Impact BI-4	
3A	Glenn Rogers	Page 1 Paragraph 1	Recommends changing the city tax, use of recycled water, payment of water by schools, financing of park improvements.	Project Description	Financing not applicable to CEQA.

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3B	Steve Lawrence	Page 1 Paragraph 1	Recommends project alternatives including desalination.	Alternatives	Cost of desalination is not applicable to CEQA.
4A	Joan Girardot, Coalition for San Francisco Neighborhoods	Page 17 Paragraph 14 Page 18 Paragraph 1	Recommends EIR present volumes of water in terms that the public understands.	Acronyms, Abbreviations, and Glossary Project Description	
4B	Katherine Howard	Page 15 Paragraph 8 Page 16 Paragraph 1-2	Expresses gratitude for the SFPUC moving the treatment plant from Golden Gate Park to the proposed location near the zoo.		Supports the location of the proposed recycled water treatment plant.
4B	Katherine Howard	Page 16 Paragraph 3	Requests EIR address aesthetics and recreation impacts.	Initial Study, Aesthetics Impact AE-1 and Impact AE-2 Initial Study, Recreation Impact RE-1 and Impact RE-2	
4B	Katherine Howard	Page 16 Paragraph 4	Requests that any impact on the park, especially trees be addressed.	Initial Study, Biological Resources Impact BI-5	
4B	Katherine Howard	Page 16 Paragraph 5	Expresses gratitude about past efforts of protecting Golden Gate Park.		Supports the current project over previous proposed projects.
4B	Katherine Howard	Page 16 Paragraph 5 Page 17 Paragraph 1	Address EIR project impacts on Golden Gate Park including historic character, aesthetics, wildlife, and vegetation in the park.	Initial Study, Aesthetics, Impact AE-1 and Impact AE-2 Initial Study, Biological Resources Impact BI-1, Impact BI-4, and Impact BI-5 EIR Cultural and Paleontological Resources	

APPENDICES

- A. Notice of Preparation (NOP) and NOP Notice of Availability
- B. Scoping Meeting Materials
- C. Scoping Meeting Transcripts
- D. Comments Received During EIR Scoping Process

APPENDIX A

Notice of Preparation and NOP Notice of Availability



SAN FRANCISCO PLANNING DEPARTMENT

PUBLIC NOTICE Availability of Notice of Preparation of Environmental Impact Report and Notice of Public Scoping Meeting

Date: July 16, 2014
Case No.: 2008.0091E
Project Title: San Francisco Westside Recycled Water Project
Zoning: Various
Block/Lot: Various
Project Sponsor: San Francisco Public Utilities Commission
Scott MacPherson
smacpherson@sfwater.org
(415) 551-4525
Staff Contact: Steven H. Smith
(415) 558-6373
Steve.Smith@sfgov.org

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

A notice of preparation (NOP) of an environmental impact report (EIR) has been prepared by the San Francisco Planning Department in connection with this project. The report is available for public review and comment on the Planning Department's SFPUC Negative Declarations and EIRs web page (<http://www.sf-planning.org/puccases>). CDs and paper copies are also available at the Planning Information Center (PIC) counter on the first floor of 1660 Mission Street, San Francisco. Referenced materials are available for review by appointment at the Planning Department's office on the fourth floor of 1650 Mission Street. (Call (415) 558-6378).

PROJECT DESCRIPTION:

The San Francisco Public Utilities Commission (SFPUC) initially proposed the project as described in a Notice of Preparation (NOP) published by the San Francisco Planning Department in June 2008; SFPUC subsequently revised the project and the San Francisco Planning Department published a second NOP in September 2010. The SFPUC has since modified the proposed project, as described in the revised NOP; key features of the project as revised are summarized below:

- The proposed recycled water treatment plant would be located at the SFPUC's Oceanside Water Pollution Control Plant (WPCP), and within a portion of the adjacent California Army National Guard site.
- Recycled water produced at the facility would be used in Golden Gate Park, Lincoln Park Golf Course, and portion of the Presidio, primarily for landscape irrigation. The existing Central Reservoir and pump station in Golden Gate Park would be expanded to include additional storage and pumping capacity. Storage and distribution facilities at the former Richmond/Sunset WPCP in Golden Gate Park and a storage facility within the Presidio are no longer proposed.

- A transmission pipeline would be constructed between the proposed recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park, primarily along 36th Avenue; transmission pipelines also would be constructed between the Central Reservoir and Lincoln Park and the Presidio, as well as adjacent to the Golden Gate Park Panhandle. Pipelines would not be constructed along the Great Highway between the Oceanside WPCP and the former Richmond-Sunset WPCP site.

The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. Implementation of this project would contribute to meeting the overall WSIP goals and objectives.¹

The Planning Department has determined that an EIR must be prepared for the proposed project prior to any final decision regarding whether to approve the project. The purpose of the EIR is to provide information about potential significant physical environmental effects of the proposed project, to identify possible ways to minimize the significant effects, and to describe and analyze possible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove the project. However, prior to making any such decision, the decision makers must review and consider the information contained in the EIR.

The Planning Department will hold a **PUBLIC SCOPING MEETING** on **Tuesday, July 29, 2014 at 6:30 PM at the Ortega Branch Library,² 3223 Ortega Street, San Francisco, California, 94122**. Meeting location access and restrooms are compliant with the Americans with Disabilities Act. To request a language interpreter or to accommodate persons with disabilities at the scoping meeting, please contact the staff contact listed above at least 72 hours in advance of the meeting. The purpose of this meeting is to receive oral comments to assist the Planning Department in reviewing the scope and content of the environmental impact analysis and information to be contained in the EIR for the project. Written comments will also be accepted until 5:00 p.m. on **August 15, 2014**. Written comments should be sent to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 or sent by email to Steven Smith, the EIR coordinator for this project, at Steve.Smith@sfgov.org.

If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency. If you have questions concerning environmental review of the proposed project, please contact **Steven Smith** at **(415) 558-6373**.

Members of the public are not required to provide personal identifying information when they communicate with the Commission or the Department. All written or oral communications, including submitted personal contact information, may be made available to the public for inspection and copying upon request and may appear on the Department's website or in other public documents.

¹ San Francisco Planning Department, *Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008.

² Note: This is not a Library sponsored program.



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Date: July 16, 2014
Case No.: 2008.0091E
Project Title: **San Francisco Westside Recycled Water Project**
Location: The proposed project is located in the western portion of San Francisco. Proposed facilities would be constructed at the Oceanside Water Pollution Control Plant and the Central Reservoir in Golden Gate Park with a transmission pipeline between these facilities. Transmission pipelines also would be constructed between the Central Reservoir, Lincoln Park and the Presidio, and adjacent to the Golden Gate Park Panhandle.
BPA Nos.: Not Applicable
Zoning: Various
Block/Lot: Various
Lot Size: Various
Project Sponsor: San Francisco Public Utilities Commission
Scott MacPherson
smacpherson@sfgov.org
Lead Agency: San Francisco Planning Department
Staff Contact: Steven H. Smith
(415) 558-6373
Steve.Smith@sfgov.org

PROJECT DESCRIPTION

The primary purpose of the San Francisco Westside Recycled Water Project (the project) is to reduce the City and County of San Francisco's (CCSF's) reliance on potable water for nonpotable uses such as irrigation through the production and distribution of highly treated recycled water. The San Francisco Public Utilities Commission (SFPUC) initially proposed the project as described in a Notice of Preparation (NOP) published by the San Francisco Planning Department in June 2008; SFPUC subsequently revised the project and the San Francisco Planning Department published a second NOP in September 2010. The SFPUC has again modified the proposed project, as described in this revised NOP; key features of the project as revised are summarized below:

- The proposed recycled water treatment plant would be located at the SFPUC's Oceanside Water Pollution Control Plant (WPCP), and within a portion of the adjacent California Army National Guard site.
- Recycled water produced at this facility would be used in Golden Gate Park (including the Panhandle portion of the park and fill for Golden Gate Park Lakes), Lincoln Park Golf Course, and various areas of the Presidio, primarily for landscape irrigation. Storage and distribution facilities at the former Richmond/Sunset WPCP in Golden Gate Park and a storage facility within the Presidio are no longer proposed. Instead, the existing Central Reservoir and pump station in Golden Gate Park would be expanded to include additional storage and pumping capacity.

- A transmission pipeline would be constructed between the proposed recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park, primarily along 36th Avenue; transmission pipelines also would be constructed between the Central Reservoir and Lincoln Park and the Presidio, as well as adjacent to the Golden Gate Park Panhandle. Pipelines would not be constructed along the Great Highway between the Oceanside WPCP and the former Richmond-Sunset WPCP site.

The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. Implementation of this project would contribute to meeting the overall WSIP goals and objectives.¹

FINDING

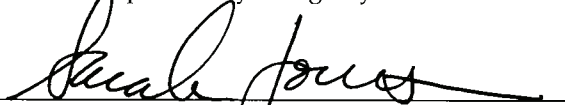
This project may have a significant effect on the environment and an Environmental Impact Report (EIR) is required. This determination is based upon the criteria of the State California Environmental Quality Act (CEQA) Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and for the reasons documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

PUBLIC SCOPING PROCESS

Pursuant to the State of California Public Resources Code Section 21083.9 and CEQA Guidelines Section 15206, a public scoping meeting will be held to receive oral comments concerning the scope of the EIR. The meeting will be held on **July 29, 2014 at 6:30 PM at the Ortega Branch Library,² 3223 Ortega Street, San Francisco, California, 94122.** Meeting location access and restrooms are compliant with the Americans with Disabilities Act. To request a language interpreter or to accommodate persons with disabilities at the scoping meeting, please contact the staff contact listed above at least 72 hours in advance of the meeting. Written comments will also be accepted at this meeting and until 5:00 p.m. on **August 15, 2014.** Written comments should be sent to Sarah Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

If you work for a responsible State agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

July 16, 2014
Date


Sarah B. Jones, Environmental Review Officer
for
John Rahaim, Director of Planning

¹ San Francisco Planning Department, *Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008.

² Note: This is not a Library sponsored program.

INITIAL STUDY

Case Number 2008.0091E San Francisco Westside Recycled Water Project

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INITIAL STUDY

San Francisco Westside Recycled Water Project Planning Department Case No. 2008.0091E

A. PROJECT DESCRIPTION

A.1 Project Background and Overview

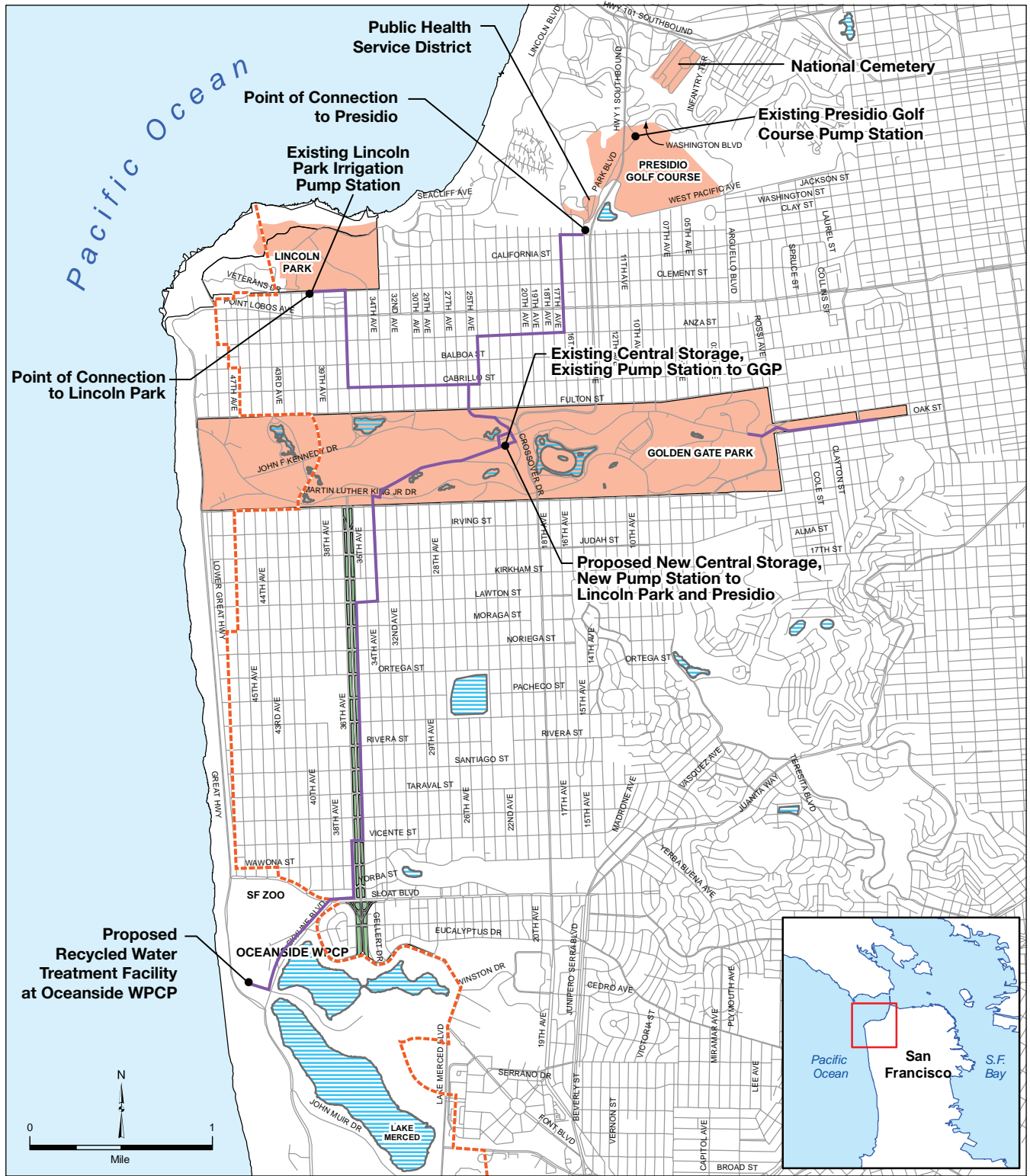
The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (the project). To meet California Environmental Quality Act (CEQA) requirements, the San Francisco Planning Department will prepare and distribute an Environmental Impact Report (EIR) to describe and analyze the environmental effects of the project.

The primary purpose of the project is to reduce the City and County of San Francisco's (CCSF) reliance on potable water for nonpotable uses such as irrigation through the production and distribution of highly treated recycled water. The project would meet the current water demands of several SFPUC customers that have substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), the Presidio Golf Course, and other irrigated areas within the Presidio. The project would involve the construction of a recycled water treatment plant and underground storage, as well as construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these existing customers (see **Figure 1**). The project is described in detail in Section A.5, Project Characteristics.

The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. Implementation of this project would contribute to meeting the overall WSIP goals and objectives.³

This San Francisco Planning Department Notice of Preparation (NOP) for the project has been preceded by two previous NOPs for the project, issued June 5, 2008, and September 8, 2010. These prior NOPs resulted in scoping meetings held on June 16 and 17, 2008, and September 23, 2010, after which the SFPUC decided to

³ San Francisco Planning Department, *Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008. Recycled water projects were evaluated at a program-level of detail in the Program EIR, which addressed the potential environmental impacts of constructing and operating the facility improvement projects, as well as the impacts of the proposed systemwide water supply and operations strategy. Because the proposed project is a component of the WSIP, the project would also contribute to the WSIP's systemwide water supply and operations impacts. The EIR as described in this Notice of Preparation (NOP) will address the same issues as the Program EIR for the San Francisco Westside Recycled Water Project but at a project level of detail; that is, this analysis will provide more project-specific and site-specific descriptions and analysis of project effects based on a much more detailed project description and more information about the project area than was described in the Program EIR.



- Proposed Pipeline Alignment
- - - Coastal Zone Boundary
- Customer Area Served

SOURCE: SFPUC, 2007; 2010; DOA, 2005; ESRI, 2008; ESA, 2013; CCSF, 2006.

San Francisco Westside Recycled Water Project

Figure 1
Project Location

further revise the project. For information on the previous proposals see Section A.2, Project History and Development, below. This NOP and Initial Study describes the project as now proposed by the SFPUC and announces the date of a scoping meeting to receive public comment.

A.2 Project History and Development

The project would contribute to meeting the level-of-service goals and system performance objectives identified in the WSIP. These goals include providing a total of 10 million gallons per day (mgd) of water supply from recycled water, groundwater, and conservation projects to meet retail demand in San Francisco. The original WSIP project description indicated that approximately 4 of the 10 mgd would come from recycled water projects in San Francisco, consisting of two components: the Westside Baseline and Harding Park/Lake Merced projects. Originally, the Westside Baseline Project proposed to deliver 2.8 mgd of recycled water to irrigation customers in western San Francisco, and the Harding Park/Lake Merced Project proposed to deliver 1.3 mgd of recycled water for irrigation of the Harding Park Golf Course and recharge of Lake Merced. The project described in this NOP includes only the components of the Westside Baseline Project, and is now referred to as the San Francisco Westside Recycled Water Project. The SFPUC has constructed a project that provides recycled water to Harding Park and is exploring the use of treated stormwater and groundwater to maintain lake levels at Lake Merced. Both of these projects are described briefly below. Also discussed in this section are the various changes to the proposed project since 2008 and the projected demand for recycled water use on the west side of San Francisco.

Although the SFPUC has revised the recycled water projects that it originally proposed in the WSIP, the SFPUC is still committed to meeting the 10 mgd of demand through conservation, recycled water, and groundwater projects.

A.2.1 Harding Park Recycled Water Project

The SFPUC has completed the construction of the Harding Park Recycled Water Project. This project involved constructing the necessary infrastructure—recycled water pipeline, underground storage reservoir, and irrigation pump station—to allow conveyance of recycled water produced by the North San Mateo County Sanitation District (at the Daly City treatment facility) to irrigate the TPC Harding Park and Fleming public golf courses, which are under the jurisdiction of the San Francisco Recreation and Park Department (SFRPD). Daly City certified the Harding Park Recycled Water Project EIR (State Clearinghouse No. 2009-012004) in 2009; construction began in November 2010 and was completed in October 2012. The project is meeting all of TPC Harding Park's irrigation water needs, estimated now at approximately 0.23 mgd on an average annual basis.

A.2.2 Vista Grande Drainage Basin Improvement Project

The WSIP includes the Lake Merced Project, which would raise the level of Lake Merced in San Francisco using a supplemental source of water, such as treated stormwater, recycled water, groundwater, or SFPUC system water. However, that project is not proceeding at this time, in light of Daly City's proposed Vista Grande Drainage Basin Improvement Project. Daly City is in the initial stages of engineering design and

environmental compliance for the Vista Grande Drainage Basin Improvement Project.⁴ The South Lake Merced Alternative, which is currently identified as the proposed Vista Grande Drainage Basin Improvement Project, would divert some stormwater (and authorized non-storm water) flows from the Vista Grande Canal to South Lake Merced, which would also help to fulfill the goals of the WSIP Lake Merced Project.

A.2.3 San Francisco Westside Recycled Water Project

Prior Proposals

The SFPUC first proposed the San Francisco Westside Recycled Water Project in June 2008 with the release of an NOP and scoping meetings by the San Francisco Planning Department. This first proposal was to construct a recycled water treatment plant at the Oceanside Water Pollution Control Plant (WPCP) that would supply recycled water to Golden Gate Park, Lincoln Park, the San Francisco Zoo, and other smaller parks. The project did not include reverse osmosis treatment of the water. The SFPUC subsequently determine that (1) reverse osmosis was a necessary component of the project, and (2) the original site location at the Oceanside WPCP was too small to include reverse osmosis treatment. The SFPUC then proposed to construct the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park that would supply recycled water to Golden Gate Park, Lincoln Park, and the Presidio Golf Course. The San Francisco Planning Department issued a second NOP in September 2010 and held scoping meetings on this second proposal. Substantial public comment was received following the release of the 2010 NOP, with many commenters expressing concern about the proposed location of the recycled water treatment plant at the site of the former Richmond-Sunset WPCP within Golden Gate Park. Following the NOP scoping period, the SFPUC held a series of public workshops to inform the public of the planning process that led to the 2010 proposed project description and to solicit feedback on other potential project sites. As a result of that process, the SFPUC identified five sites as technically feasible, including the proposed Golden Gate Park site. Over the following year, the SFPUC evaluated the feasibility of the five potential project sites. This evaluation process resulted in the project as now proposed.

Current Proposal

The new proposal would locate the recycled water treatment plant at the Oceanside WPCP and within a portion of the adjacent area leased by CCSF to the California Army National Guard. Effluent (treated to secondary treatment⁵ standards at the existing WPCP) would be conveyed to the recycled water treatment plant to be processed to advanced tertiary standards using reverse osmosis. The project would provide recycled water to Golden Gate Park (including the Panhandle portion of the park), Lincoln Park, and various uses in the Presidio. The main components of the project as now proposed include the following:

⁴ The Vista Grande Project is currently in environmental review. On February 28, 2013 the City of Daly City and the National Park Service published a Notice of Preparation/Notice of Intent that an environmental impact report/environmental impact statement would be prepared for this project (http://www.dalycity.org/City_Hall/Departments/public_works/Reports_1119/vistagrande_alts.htm).

⁵ Secondary effluent treatment is a process that *reduces suspended solids and biological oxygen demand* in wastewater by approximately 90 percent.

- The recycled water treatment plant would be located at the SFPUC's Oceanside WPCP and on a portion of the adjacent area leased by CCSF to the California Army National Guard site.
- The project would provide recycled water to Golden Gate Park, Lincoln Park, and the Presidio. Recycled water would be used within the Presidio at the golf course, and potentially the National Cemetery and the Public Service Housing District. The SFPUC is no longer proposing to construct facilities at the former WPCP in Golden Gate Park; nor would this project include distribution facilities within the Presidio. Instead, the SFPUC would expand the existing Central Reservoir and pump station in Golden Gate Park to increase storage and pumping capacity.
- The project includes a transmission pipeline to be constructed between the proposed new recycled water treatment plant at the Oceanside WPCP and the existing Central Reservoir in Golden Gate Park, primarily along 36th Avenue. Pipelines would not be constructed along the Great Highway between the Oceanside WPCP and the former Richmond-Sunset WPCP site.
- The project also includes transmission pipelines to be constructed primarily in City streets between the Central Reservoir in Golden Gate Park and Lincoln Park and the Presidio, and adjacent to the Golden Gate Park Panhandle.

The proposed siting of the recycled water treatment plant within the existing Oceanside WPCP would allow for the sharing of critical facilities, including the plant access road and chemical storage and offloading facilities, and would thereby reduce the space requirements for the new recycled water treatment plant.

A.2.4 Related Projects

Implementation of the project is related to the SFPUC's San Francisco Groundwater Supply Project, which involves the development of local groundwater supply and the blending of that supply with potable surface water supply. The San Francisco Groundwater Supply Project would convert two existing irrigation wells in Golden Gate Park to potable use; however, before those wells could be used to supply municipal water, the proposed project would first need to be implemented so that the recycled water could provide a replacement source of irrigation water. Alternatively, another landscaping water source could be identified to replace the irrigation water currently provided by these wells. The San Francisco Planning Commission certified the Groundwater Supply Project EIR (San Francisco Planning Department Case No. 2008.1122E, available online at <http://www.sf-planning.org/index.aspx?page=1829>) on December 19, 2013.

Implementation of the project is also related to potential future actions by customers that would need to retrofit irrigation facilities to accommodate the recycled water. This could include bringing systems into compliance with California Department of Public Health Services requirements, and adding distribution systems for use of recycled water (e.g., the Presidio would install a distribution pipeline to serve irrigated areas).

A.2.5 Recycled Water Demand

As stated above, the WSIP originally projected that the Westside Baseline Project would serve a recycled water demand of 2.8 mgd. The SFPUC has since refined the recycled water demand estimate for users on the west side of San Francisco and has identified three major recycled water customers for the project: Golden Gate Park, Lincoln Park/Lincoln Park Golf Course, and the Presidio Golf Course (as well as other areas within the Presidio). Together, the recycled water demand for these customers is estimated at 1.6 mgd

(annual average) or 4.0 mgd peak-day demand. The project would be sized to accommodate an additional 0.4 mgd annual average (additional 1.0 mgd peak-demand) for a total capacity to serve peak-day demands of up to 5.0 mgd (or 2.0 mgd annual average), in anticipation that the facility could also provide future service to other nearby parks or irrigated medians. These future customers are not known with specificity at this time. **Table 1** summarizes the proposed customers and their respective demands that would be served by the project, as currently known.

**TABLE 1
SUMMARY OF PROPOSED RECYCLED WATER CUSTOMERS**

End User	Average Annual Demand (mgd)	Peak-Day Demand (mgd)
<i>Golden Gate Park</i>		
Irrigation/California Academy of Sciences	0.94	2.41
Lake Fill	0.4	0.4
<i>Lincoln Park Golf Course</i>		
Irrigation	0.11	0.30
<i>Presidio (ALL)</i>		
Irrigation	0.18	0.89
<i>Capacity for Potential Future Users</i>		
Irrigation	0.4	1.0
Total (rounded)	2.0	5.0

mgd = million gallons per day

SOURCES: RMC Water and Environment (RMC), *Technical Memorandum, Westside Recycled Water Project Description*, June 17, 2009; San Francisco Public Utilities Commission (SFPUC), *WSIP Westside Recycled Water Project CUW302-01, Second Addendum to Project Description TM*, July 2, 2010.

A.3 Project Sponsor’s Objectives

On October 30, 2008, the SFPUC adopted the WSIP (known as the “Phased WSIP Variant”) to improve the regional water system with respect to water quality, seismic response, and water delivery based on a planning horizon through the year 2030. The WSIP was also adopted to improve the regional system with respect to water supply to meet water delivery needs in the SFPUC service area through the year 2018. The WSIP area spans seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco.

One of the WSIP goals is to meet customer water needs during both nondrought and drought periods, and two of the WSIP system performance objectives are to: (1) diversify water supply options during nondrought and drought periods; and (2) improve the use of new water sources and drought management strategies, including use of groundwater, recycled water, conservation, and transfers. The adopted WSIP includes the development of 20 mgd of conservation, recycled water, and groundwater within the SFPUC service area (10 mgd in the retail service area [i.e., within San Francisco] and 10 mgd in the wholesale service area [i.e., beyond San Francisco]).

The proposed project would contribute to these WSIP goals through the development of recycled water as an alternative water supply for nonpotable uses in the SFPUC's retail service area within San Francisco, thereby benefiting the regional system by reducing demands for potable water. The specific objectives of the project are to:

- Diversify the SFPUC's water supplies by developing recycled water
- Develop a new water supply in San Francisco that is both reliable and drought resistant
- Reduce the use of potable water and groundwater for irrigation and other nonpotable uses by supplying those demands with recycled water

A.4 Project Location

Facilities associated with the project would be constructed at several locations throughout western San Francisco (see Figure 1), including the SFPUC's Oceanside WPCP near Lake Merced; the Central Reservoir in Golden Gate Park; the Panhandle portion of Golden Gate Park; and pipelines connecting the WPCP to Golden Gate Park, the Presidio, and Lincoln Park.

A.4.1 Oceanside WPCP

As described in Section A.1.4, the recycled water treatment plant would be located at the existing SFPUC Oceanside WPCP, which is at 3500 Great Highway adjacent to North Lake Merced and the Pacific Ocean. The WPCP covers approximately 12 acres, and contains a number of buildings and structures. As described further under Section C, the site is located within the Public Use district and the Open Space height and bulk district.

A.4.2 Golden Gate Park

Golden Gate Park, managed by the SFRPD, is located in western San Francisco; it is bounded on the west by the Great Highway, on the north by Fulton Street, on the east by Stanyan Street, and on the south by Lincoln Way. Proposed facility sites within Golden Gate Park include the existing Central Reservoir and the existing booster pumps in the Panhandle portion of the park. The Central Reservoir, which covers approximately 5 acres, is located near the southwest quadrant of the intersection of John F. Kennedy Drive and Transverse Drive. The existing booster pump stations are located within the Panhandle area of Golden Gate Park. As described further under Section C, per the San Francisco Planning Code, both of these sites are located within the Public Use district and the Open Space height and bulk district.

A.4.3 Presidio of San Francisco

The Presidio of San Francisco is located on the northern end of the San Francisco peninsula. The Presidio is generally bounded on the north by San Francisco Bay, on the east by Lyon Street, on the south by Pacific Avenue and Lake Street, and on the west by the Pacific Ocean. The Presidio is within the Golden Gate National Recreation Area and contains a variety of historical and cultural features, including the San Francisco National Cemetery, the Presidio Golf Course, and the Public Health Services District. The proposed recycled water pipelines would connect to the Presidio boundary at approximately Lake Street and 14th Avenue, adjacent to the Presidio.

A.4.4 Lincoln Park

The Lincoln Park Golf Course is located in northwest San Francisco, at 300 34th Avenue at Clement Street. The course covers approximately 112 acres. The proposed recycled water pipelines would connect to an existing irrigation pump station north of the intersection of Clement Street and 39th Avenue.

A.4.5 Proposed Pipeline Routes

The proposed new transmission pipelines would run through the Sunset District from the proposed treatment plant at the Oceanside WPCP to the existing Central Reservoir in Golden Gate Park (both described above), then from the Central Reservoir through the Richmond District to proposed customers in Lincoln Park and the Presidio, and along Oak Street to serve the Panhandle. The majority of the pipeline between the Oceanside WPCP and the Central Reservoir would run along Skyline Boulevard and 36th Avenue. Pipelines between the Central Reservoir and Lincoln Park Golf Course and the Presidio would, for the most part, be routed along Cabrillo Street, 36th Avenue, 24th Avenue, Anza Street, and 16th Avenue.

A.5 Existing Uses on the Project Sites

A.5.1 Oceanside WPCP

The Oceanside WPCP, shown on **Figure 2**, is operated by the SFPUC and was constructed in 1994. The WPCP currently treats about 20 percent of the average annual wastewater flows for San Francisco. The site contains approximately seven buildings associated with the wastewater treatment processes, including headworks, primary treatment, secondary treatment, solids handling, and support facilities.⁶ Entrances to the WPCP are located along Skyline Boulevard and the Great Highway. The WPCP is located within a bermed area, and, with the exception of the existing facility entrances, lighting structures and fencing, and a retaining wall at the top of the berm in the vicinity of the Great Highway entrance, the WPCP facilities are not visible from public areas. The San Francisco Zoo is located to the north and the California Army National Guard is located to the east. The portion of the California Army National Guard site included in the proposed project is currently used as a landscaped berm and parking lot.

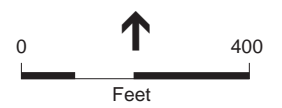
A.5.2 Golden Gate Park Central Reservoir

The Central Reservoir site is in a fenced maintenance area, which currently contains an underground reservoir, an above-ground pump station, and wood waste and composting areas (see **Figure 3**). The site is accessed by a road (Overlook Drive) that is primarily used by maintenance vehicles, and some bicyclists and pedestrians. The underground reservoir at the site is a buried 2,000,000-gallon reservoir, with a connected aboveground pump station used to serve the park's irrigation system. The existing above ground pump station is approximately 40 feet by 60 feet and 19 feet tall, with a connecting cement wall that is approximately 25 feet tall and 120 feet long.

⁶ San Francisco Public Utilities Commission (SFPUC), San Francisco Sewer System Master Plan, June 15, 2010. Available online at <http://www.sfwater.org/modules/showdocument.aspx?documentid=723>. Accessed October 29, 2013.



- Existing Oceanside WPCP
- Proposed Off-Site Staging Area
- Proposed Limit of Construction
- Proposed On-Site Staging Area
- Coastal Zone Boundary
- Area Appealable to the California Coastal Commission
- Jurisdiction Retained by the California Coastal Commission
- Local Coastal Zone Permit Area



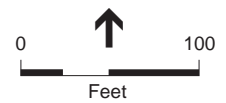
SOURCE: ESA, 2013; EMB, 2013.

San Francisco Westside Recycled Water Project
Figure 2
 Existing Conditions – Oceanside WPCP

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- Existing Central Reservoir Facility
- Proposed Limit of Construction



SOURCE: ESA, 2014

San Francisco Westside Recycled Water Project

Figure 3
Existing Conditions – Golden Gate Park Central Reservoir

A.5.3 Pipeline Routes

The proposed pipeline routes (see Figure 1) are primarily located within existing roadways and within trails/pathways in Golden Gate Park.

A.6 Project Characteristics

A.6.1 Project Components

The project would include the components listed below, which are described in greater detail in the following sections.

Treatment and Storage. The recycled water treatment facilities would include:

1. Proposed approximately 30,000 square foot (40 feet in height) treatment plant at the Oceanside WPCP with annual average production capacity of up to 2.0 mgd, but sized to meet peak-day demands (during summer months) of up to 5.0mgd
2. Reconfiguration of the existing chemical storage building at the Oceanside WPCP to house the additional chemicals required for the recycled water treatment process
3. New secondary effluent pumps at the Oceanside WPCP.
4. Proposed reconfiguration of the existing chlorine contact channels within the Oceanside WPCP to provide 760,000 gallons of secondary effluent equalization storage
5. Proposed 50,000-gallon reservoir underneath the recycled water treatment plant used during the treatment process
6. Proposed 840,000-gallon buried storage reservoir adjacent to the existing Central Reservoir in Golden Gate Park

Distribution. The distribution facilities would include:

1. Proposed recycled water transmission pump station (approximately 50 by 100 feet and 20 feet high) at the recycled water treatment plant, including a proposed 40,000 gallon recycled water pump wet well used to submerge pumps.
2. Use and potential modification (within existing footprint) of the existing pump station and Central Reservoir at the Golden Gate Park Central Reservoir site
3. Proposed recycled water distribution pump station adjacent to the existing Central Pump Station in Golden Gate Park. The new pump station would be about 50 feet by 100 feet and 20 feet tall.
4. Upgrade or replacement of the existing irrigation booster pumps in the Panhandle
5. Use of the existing irrigation pump station at Lincoln Park
6. Approximately 3 miles of proposed pipeline (16 to 20 inches in diameter) from the recycled water treatment plant at Oceanside WPCP to the Central Reservoir in Golden Gate Park

7. Approximately 5 miles of proposed pipeline (8 to 16 inches in diameter) from the Central Reservoir to proposed customers in Lincoln Park, the Presidio, and the Panhandle

Recycled Water Treatment Plant Facilities at the Oceanside WPCP Site

The proposed recycled water treatment plant would be constructed at the existing Oceanside WPCP complex, and partially within the California Army National Guard property (see **Figure 2**). The existing Oceanside WPCP is an approximately 5.5 acre facility, which includes several structures that are up to approximately 45 feet tall, located within a bermed area. A two-story treatment building (approximately 30,000 square feet total area) would be constructed to house water treatment equipment, electrical controls, pumping equipment, and other appurtenant equipment required for the proposed treatment process summarized below. The treatment building would also contain an electrical substation, operations room, and motor control center. The proposed building would be approximately 40 to 45 feet high.

The interior of the existing chemical building at the Oceanside WPCP (Building 510) would be reconfigured to house the chemical storage tanks and feed systems needed for the recycled water treatment processes. In addition, the existing chlorine contact channel at the Oceanside WPCP would be configured to provide secondary effluent equalization storage, which would provide for steady flow to the recycled water treatment plant during periods of low flow to the WPCP. Two underground storage reservoirs would be constructed beneath the treatment plant, including a 50,000-gallon reservoir used during the treatment process and a 40,000-gallon wet well used to submerge pumps.

Treatment Process

The recycled water treatment plant would treat secondary effluent from the Oceanside WPCP to remove suspended and dissolved solids, bacteria, viruses, organic materials, and other constituents, resulting in treated water that meets and/or exceeds the regulatory requirements of the California Department of Public Health for disinfected tertiary recycled water.⁷ The proposed recycled water treatment process includes microfiltration/ultrafiltration (MF), reverse osmosis (RO), and ultraviolet light (UV) disinfection. The MF membrane system would remove suspended solids. From the MF system, the treated water would be pumped to an RO membrane system to reduce dissolved salts, ammonia, and nutrients. The advanced treated recycled water would be disinfected with UV disinfection.

⁷ The water quality criteria, treatment process requirements, and treatment reliability criteria for water recycling operations established by the California Department of Health Services are set forth in Title 22, Division 4, Chapter 3, of the California Code of Regulations. Under this regulation, “disinfected tertiary recycled water” means filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater has been disinfected by either: (1) a chlorine disinfection process following filtration that provides a CT value (the product of total chlorine residual and modal contact time measured at the same point) of not less than 450 milligram-minutes per liter at all times, with a modal contact time of at least 90 minutes, based on peak dry-weather design flow; or (2) a disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus, in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters (mL) utilizing the bacteriological results of the past 7 days for which analyses have been completed, and the number of total coliform bacteria does not exceed a MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed a MPN of 240 total coliform bacteria per 100 mL.

The recycled water treatment plant would also contain chemical feed systems for coagulant, acid, and base, as well as other chemicals used in the treatment process. Typically, a chlorine residual is introduced into recycled water to prevent biological growth in the proposed distribution systems and in the existing irrigation distribution and sprinkler systems, and could be included as part of the project.

Recycled Water Distribution System

Distribution Pumps

Transmission pumps would be installed at the recycled water treatment plant to convey recycled water from the facility to the Central Reservoir in Golden Gate Park. Three transmission pumps (two duty and one standby) with motors of up to 200 horsepower (1,400-gallons-per-minute capacity) would be installed at the treatment plant. Space would be available for the future addition of two pumps (one duty and one standby, with motors of up to 75 horsepower and 700 gallons per minute) to serve potential future users. At the Central Reservoir, the existing pump station would pump recycled water into the Golden Gate Park irrigation system. A new pump station would be constructed adjacent to the existing facility and would house four distribution pumps (three duty and one standby) with motors of up to 150 horsepower (833 gallons per minute), as well as two hydropneumatic tanks to pump recycled water from storage to serve Lincoln Park and the Presidio. This new pump station would be enclosed inside a structure with concrete walls. The existing booster pump stations in the Panhandle would be upgraded to provide the required pressure to the Panhandle irrigation system. The existing Lincoln Park pump station would be used to distribute recycled water to the golf course irrigation system, and could require some upgrade of pump system controls to optimize system operation.

Distribution Pipelines

Approximately 8 miles of pipeline would be constructed to connect the recycled water treatment plant to the proposed customers in Lincoln Park, the Presidio, and the Panhandle. The pipes would be built primarily in public rights-of-way (streets). Pipe diameters would range from 8 to 20 inches. Figure 1 shows the proposed pipeline network, which is described below.

Recycled Water Treatment Plant to Golden Gate Park. The distribution pipeline running from the recycled water treatment plant at Oceanside WPCP to the Central Reservoir in Golden Gate Park would be routed as follows:

- From the recycled water treatment plant east either via the existing vehicle tunnel connecting the Oceanside WPCP to Skyline Boulevard, or through a berm to the east of the tunnel and along the west edge of the Armory parking lot
- Northeast along Skyline Boulevard to Sloat Boulevard
- East along Sloat Boulevard to 37th Avenue
- North along 37th Avenue to Vicente Street
- East along Vicente Street to 36th Avenue
- North along 36th Avenue to Lawton Street

- East along Lawton Street to 34th Avenue
- North along 34th Avenue to Lincoln Way
- Along a Golden Gate Park trail north from 34th Avenue/Lincoln Way to Middle Drive West
- Northeast along Middle Drive West to Overlook Drive
- Northeast along Overlook Drive to the Central Reservoir

The distribution pipeline would connect to the existing Central Reservoir and the proposed new reservoir.

Central Reservoir to Lincoln Park Golf Course. The distribution pipeline would continue from the Central Reservoir to Lincoln Park Golf Course as follows:

- North from Central Reservoir either to Overlook Drive or John F. Kennedy Drive
- East along Overlook Drive or John F. Kennedy Drive to Transverse Drive
- Northwest along Transverse Drive to Crossover Drive
- Northwest along Crossover Drive to 25th Avenue
- North along 25th Avenue to Cabrillo Street
- West along Cabrillo Street to 36th Avenue
- North along 36th Avenue to Clement Street
- West along Clement Street to the Lincoln Park point of connection at 39th Avenue and Clement Street

Central Reservoir to the Presidio. The distribution pipeline would continue from the Central Reservoir to the Presidio as described above to Cabrillo Street, and then as follows:

- East along Cabrillo Street from Cabrillo Street/25th Avenue to 24th Avenue
- North along 24th Avenue to Anza Street
- East along Anza Street to 16th Avenue
- North along 16th Avenue to Lake Street
- East along Lake Street to 14th Avenue
- North along 14th Avenue to a proposed turnout at 14th Avenue north of Lake Street

Panhandle Distribution System. The existing Golden Gate Park irrigation system pipeline loop in John F. Kennedy Drive and other roads within the park is connected to the existing Golden Gate Park Central Reservoir and pump station. However, the Panhandle portion of Golden Gate Park is currently served by municipal water supply and is not connected to the existing irrigation system described above. Thus, the project would include a pipeline segment to connect the Panhandle to the existing irrigation system in the Park (see Figure 1). The pipeline would be located along John F. Kennedy Drive and Oak Street. The pipeline would connect to existing booster pumps located within the Panhandle to provide sufficient water

pressure for Panhandle irrigation. Upgrade or replacement of the booster pumps would be required as part of the project.

Distribution Storage

The project would include use of the Golden Gate Park Central Reservoir, and the addition of a 840,000-gallon buried storage reservoir adjacent to the existing reservoir. As noted above, it could be necessary to provide connections between the existing and proposed storage tanks and modify the existing pump station to provide the necessary pressure sufficient to enable distribution of recycled water to the park.

Reverse Osmosis Concentrate (Brine) Disposal

The recycled water treatment process would produce a reverse osmosis concentrate, which is a concentrated brine solution. This brine would be conveyed to the ocean for disposal through the Oceanside WPCP Southwest Ocean Outfall. A short (about 2,000-linear-foot) segment of pipeline, approximately 8 to 10 inches in diameter, would be routed inside of the Oceanside WPCP from the recycled water treatment plant to the entrance to the outfall (within the plant).

A.6.2 Construction

Project construction is expected to begin in approximately January 2016 and end in approximately March 2019. Construction hours would vary depending on the construction locations. The proposed areas of disturbance, and off-site staging areas for the recycled water treatment plant, are shown on Figures 2 and 3. Construction and staging associated with pipelines would be along the alignments shown on Figure 1. Construction activities are proposed to occur primarily during the daytime hours (7:00 a.m. to 5:00 p.m.⁸), five days a week on non-holiday weekdays (Monday through Friday); however, restricted construction hours may be required in the vicinity of the Golden Gate Park Panhandle. Nighttime or weekend construction work is not anticipated, but may occur in order to expedite construction and reduce the duration of effects at a single location or daytime road closures. Nighttime construction would only be required at limited locations for limited duration in the event there are conflicts with San Francisco Municipal Transportation Agency (SFMTA) operations (i.e. at San Francisco Municipal Railway [MUNI] crossings). Approval by the Department of Public Works (SFRPD) for nighttime construction (i.e., between 8:00 p.m. and 7:00 a.m.) may be required and the project would be subject to review under the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code). More specifically, SFPUC construction specifications require the construction contractor to “Conduct all operations, use appropriate construction methods and equipment in accordance with the San Francisco Noise Ordinance” including nighttime noise requirements.⁹ In addition, if needed nighttime lighting would be used and directed downward to ensure safe illuminated areas for construction workers and to minimize glare effects.

In advance of project construction, SFPUC would provide a 10-day public notice describing project construction activities, schedule information, anticipated effects such as temporary closure of parking

⁸ Truck and worker trips at project facility sites would end at 4:30 p.m. However, trucks leaving the sites at 4:30 p.m. would not reach their destinations until about 5:00 p.m.

⁹ MacPherson, S, personal communication, June 4, 2014.

spaces or detours, and contact information. The notice would be distributed to adjacent properties¹⁰ and included on the SFPUC website along with project information.

Pipeline alignments are primarily within existing streets in the Sunset and Richmond District, and within trails and roads within Golden Gate Park. Prior to pipeline construction, the SFPUC's contractor would coordinate with the SFDPW and Department of Parking and Traffic to obtain any necessary construction approvals. Construction activities would also be coordinated with MUNI's Street Operations office to reduce any impacts on transit operations. All temporary construction easements and permits and other approvals, where applicable, would be obtained prior to starting construction.

Construction of the distribution pipelines would require excavation to depths on the order of 6 feet below ground surface. Excavations would be appropriately shored in accordance with the regulatory requirements of the California Department of Industrial Relations (Cal/OSHA) specified in Title 8 of the California Code of Regulations. Pipeline construction using the open-cut trench method would progress at an estimated rate of 200 to 300 feet per day (on average); ductile pipe installation would progress at approximately 100 feet per day, and sawcutting would progress at a rate of approximately 1,000 feet per day. It is estimated that the duration of construction at any one location would be approximately two weeks, including repaving and other finish work). Subsequent final paving would progress at a rate of approximately 300 feet per day, and would occur after a substantial length of pipeline had been constructed. During project construction, single-lane closures would be necessary along most pipeline routes, which would require implementation of two-way, alternating traffic in the remaining available lane. However, pipeline construction could require temporary closure of a trail within Golden Gate Park located north of Lincoln Way/34th Avenue, between Lincoln Way and Middle Drive West, for up to two months, and potential closure of narrow park roadways, such as Overlook Drive, during pipeline construction.

Construction activities at the existing Oceanside WPCP and associated off-site staging areas, and at the Central Reservoir, would be within existing facility areas that include similar functions as the proposed project. Construction of the new recycled water treatment plant and underlying wet wells would entail excavation to a maximum depth of about 23 feet below ground surface, or to an elevation of about 8 feet San Francisco City Datum (SFD). For this construction, one existing retaining wall near the property boundary with the Armory site would be demolished. Some dewatering may be necessary to maintain a dry excavation for construction. Construction of the wet well for recycled water storage would require excavation to a depth of five feet. Excavation walls for these construction activities would be supported by conventional shoring methods such as soldier piles and lagging¹¹ which would prevent the excavation sidewalls from becoming unstable. Once constructed, the recycled water treatment building would be 40 to 45 feet high.

Project construction, including the Oceanside WPCP site, Central Reservoir, and pipeline alignments, would require tree limbing and vegetation removal as follows: vegetation removal adjacent to the entrance to the

¹⁰ Those parcels adjacent to the work area.

¹¹ A soldier pile and lagging system includes concrete encased beams placed in drilled holes that extend below the bottom of the excavation. Timber lagging is placed between the beams to retain soil in the excavation sidewall as excavation proceeds.

Central Reservoir facility, if widening of the entrance is required; vegetation removal at a stretch of pipeline between the Central Reservoir pump station addition and Overlook Drive or John F. Kennedy; removal of small ornamental palm trees in the Oceanside WPCP parking area; and tree and vegetation removal at a short stretch of pipeline between the recycled water treatment plant, the California Army National Guard parking lot, and Skyline Boulevard. No tree removal would occur within Golden Gate Park or at other project locations, other than those described above. However, tree trimming could be required at any project location. In accordance with Section 808(c) of the San Francisco Public Works Code (Protection of Trees and Landscape Material), trees adjacent to construction areas that are not proposed for removal would be protected by:

- Establishing a Tree Protection Zone (TPZ) around any tree or group of trees to be retained. The formula typically used is defined as 1.5 times the radius of the dripline or 5 feet from the edge of any grading, whichever is greater. The TPZ may be adjusted on a case-by-case basis after consultation with a certified arborist.
- Marking the TPZ of any trees to be retained with permanent fencing (e.g., post and wire or equivalent), which would remain in place for the duration of construction activities in the area. “Keep out” signs would be posted on all sides of fencing.
- Prohibiting construction-related activities, including grading, trenching, construction, demolition, or other work within the TPZ; or, if work within the TPZ is necessary, performing the work in a manner that will adequately protect the tree. No heavy equipment or machinery would be operated within the TPZ. No construction materials, equipment, machinery, or other supplies would be stored within a TPZ. No wires or signs would be attached to any tree. Any modifications would be approved and monitored by a certified arborist.
- Pruning selected trees to provide necessary clearance during construction and to remove any defective limbs or other parts that may pose a failure risk. All pruning would be completed by a certified arborist or tree worker and adhere to the *Tree Pruning Guidelines* of the International Society of Arboriculture.

In Golden Gate Park, construction of the new underground storage reservoir would entail excavation to a depth of about 25 feet below ground surface. Excavation would be appropriately shored using conventional shoring methods such as soldier piles and lagging.¹² Jet grouting may also be used, depending on site conditions.¹³ The water level in the existing reservoir could also be lowered to reduce stresses on the reservoir, and the existing reservoir would also be underpinned if necessary to provide additional support.

The types of construction equipment include: jackhammer (pavement breaker), concrete saw, loader, dozer, excavator, grader, Compactor, dump truck, flatbed truck, concrete truck, forklift (gas-powered), street sweeper (vacuum), generator, pneumatic sheeting driver, compressor, mixer (batch plant), roller, crane, and auger drill rig. Impact tools, such as jackhammers, would be equipped with intake and exhaust mufflers approved by the SFDPW or the Director of Building Inspection, as required under the San Francisco Noise Ordinance. Construction of the recycled water treatment plant at the Oceanside WPCP and facilities at the

¹² San Francisco Department of Public Works, Infrastructure Design and Construction. *Geotechnical Report, Golden Gate Park Central Reservoir Expansion Project, San Francisco, California*. April 22, 2013.

¹³ Jet grouting involves mechanically mixing the in-place soil with grout to provide support for the excavation sidewalls.

Central Reservoir site in Golden Gate Park would each generate approximately four trucks per day, while pipeline construction is expected to generate approximately six trucks per day. Construction-related trucks associated with each project component (treatment plant, pump station, and distribution pipelines) would travel on different routes since they are not located near each other except when pipeline construction occurs near the two proposed facilities. During these times, it is possible that concurrent construction activities could result in approximately 10 haul trucks per day traveling on the same routes. Local and regional roadways would be used to haul construction materials; these roads would be designated based on the San Francisco Metropolitan Transportation Agency Truck Traffic Route Map.

The project would be implemented in accordance with relevant federal and State Occupational Safety and Health Administration (OSHA) regulations.¹⁴ The project is also subject to the San Francisco Public Works code. The SFPUC has established Standard Construction Measures¹⁵ that would be implemented as part of all WSIP projects, including the proposed Westside Recycled Water Project. The main objective of these measures is to reduce disruptions to surrounding neighborhoods, resources, and land uses during any SFPUC construction, maintenance, or repair activity or project that requires CEQA review. The Standard Construction Measures include activities such as onsite air and water quality measures during construction, traffic control plan, noise plan, hazardous materials handling plan, nighttime lighting orientation, early identification of sensitive environmental resources in the project area, and notification of businesses, owners, and residents in areas adjacent to the WSIP projects regarding the nature, extent, and duration of construction activities. The SFPUC would ensure that the proposed project's contract specifications contain uniform minimum provisions to address these issues.

Following construction, disturbed areas would be repaved or otherwise returned to their general pre-project condition, including re-grading of the site and revegetation of disturbed areas.

A.6.3 Operations and Maintenance

Operation of the recycled water treatment plant would require approximately four full-time employees. Operation and maintenance of other project facilities would utilize existing SFPUC employees and be similar to existing maintenance activities that already occur at the site. The systems used to supply water for irrigation and commercial uses would operate year-round, with peak production occurring during the dry months, usually April through October. When demand is low, portions of the treatment facilities could be placed in standby mode or operate at reduced output. Storage reservoirs in the distribution system would be used to balance daily demands.

The primary pump station at the proposed recycled water treatment plant would operate as needed to meet demand and to fill reservoirs in the distribution system. The pump station in Golden Gate Park and the booster pumps along the Panhandle would operate on an as-needed basis to maintain pressure in the system. Backup power for the treatment plant would be provided by existing Oceanside WPCP emergency

¹⁴ Project actions to comply with relevant OSHA regulations are described in detail in Impact UT-5.

¹⁵ San Francisco Public Utilities Commission (SFPUC), *Standard Measures to be Included in Construction Contracts and Project Implementation*, memorandum from Susan Leal, General Manager, and Tony Irons, Deputy General Manager, to Michael Carlin, Tom Franza, Barbara Hale, Harlan Kelly, Julie Labonte, Irina Torrey, Ivy Fine, and Tony Winnicker, February 7, 2007.

power supply facilities. Backup power at the Central Reservoir facility would be provided by an existing SFPUC portable diesel generators that would be transported to the facility from an offsite SFPUC storage location during an emergency.

Water Quality Objectives

The irrigation demands identified in Section A.1.5 are currently being met through the use of groundwater pumped from local wells in Golden Gate Park, and through the use of potable water for Lincoln Park, the Presidio, and the Panhandle portion of Golden Gate Park. The SFPUC determined that chloride and sodium concentrations are the key parameters of concern for these customers; therefore, water quality objectives were established for the project to minimize chloride, sodium, ammonia, and nutrient concentrations.¹⁶

Proposed Green Building Features

The project would incorporate green building features including energy efficiency, water efficiency, stormwater management, alternative transportation opportunities, green products and low-emitting materials, and materials recycling. The project is being designed to meet Leadership in Energy and Environmental Design (LEED) Gold standards. LEED New Construction certification was designed primarily for new commercial office buildings. LEED certification can be difficult to obtain for this type of project because energy reduction credits tend to be oriented towards the characteristics of energy use in office buildings and require inclusion of all process equipment. SFPUC would perform site-specific cost effectiveness evaluations of alternative technologies to increase the efficiency of the building shell; lighting and heat, ventilation, and air conditions (HVAC) systems.

To meet required minimum energy efficiency requirements, the project's facilities would be constructed in compliance with California's Energy Efficiency Standards specified in the California Code of Regulations, Title 24, Part 6. All facilities would utilize renewable energy in the form of hydroelectric power from the Hetch Hetchy Regional Water System for project operations under normal conditions. All lighting would comply with the 2013 Title 24 Energy Conservation Standard. Furthermore, all outdoor lighting would be light-emitting diode (L.E.D.)-type.

To achieve water efficiency of an estimated 30 percent reduction, recycled water would be used for irrigation and toilet/urinal needs at the recycled water treatment plant site. All new water closets, urinals and faucets installed under the project would comply with the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code.

SFPUC fleet and contractor diesel vehicles used during construction and operation of the project would use biodiesel fuel. Operations and maintenance activities would be performed by SFPUC staff located at existing and proposed SFPUC facilities, so existing SFPUC fleet vehicles may be utilized. However, if any new SFPUC fleet vehicles are required for project operations and maintenance activities, new purchases would be consistent with vehicle efficiency requirements. Similarly, all contracts issued for construction of the project would incorporate these biodiesel and best available control technology requirements into the

¹⁶ RMC Water and Environment (RMC), *Technical Memorandum, Westside Recycled Water Project Description*, June 17, 2009.

contract specifications. SFPUC adheres to these requirements for vehicles and equipment that fall under this category; therefore, all operations and maintenance activities would also comply with this ordinance. Bicycle storage would be provided for 5% of the building addition users used at building peak period.

Some of the products that would be needed for the project fall under the Approved Green Products List product categories, including (but not limited to): building materials, fuel, landscaping products, lighting, and paint and lacquer thinner. These products would be utilized during the project construction phase; therefore, construction specifications would include the requirement to use products from the Approved Green Products List when feasible. Any applicable products from the Approved Green Products List needed for conducting operations and maintenance activities would be utilized by SFPUC staff when feasible. Project design would incorporate the use of LEED compliant Low-Emitting Materials, where available. Products include rubber floor adhesives, ceramic tile adhesives, cove base adhesives, sealants, general use paints. All contracts associated with construction of the project would prohibit the utilization of the ordinance-listed tropical hardwoods and virgin redwood. All material removed from the project sites, including concrete, metal, and green waste, would be recycled to the maximum extent feasible, with a goal of 75% diversion or disposed of at an appropriate landfill in compliance with applicable federal, State, and local regulations. In addition, a Construction and Demolition Debris Management Plan would be prepared.

A.7 Approvals Required

The SFPUC may be required to obtain the following permits and approvals for project construction and operation.

A.7.1 *Federal*

- The Presidio Trust approval of a water supply agreement with the SFPUC that would set forth the terms of supply of the recycled water.

A.7.2 *State*

- The California Army National Guard approval of an amendment of the lease with the SFPUC to allow a portion of the Armory site to be used for the project.
- State Water Resources Control Board (SWRCB) Stormwater General Construction Permit and Stormwater Pollution Prevention Plan, if more than one acre of land is disturbed.¹⁷
- SWRCB Water Quality Order No. 2009-0006-DWQ, General Waste Discharge Requirements for Landscape Irrigation Uses of Recycled Water.
- California Coastal Commission (CCC), issuance of Coastal Development Permit (a portion of the proposed pipeline would pass through the Coastal Commission's retained permit jurisdiction south of Sloat Boulevard associated with the former tidelands connecting Lake Merced with the ocean [see Figure 2]). The CCC may also assert regulatory authority over change in effluent discharge at the outfall.

¹⁷ Applicable to areas that do not drain to the City's combined sewer system.

A.7.3 Local

- San Francisco Planning Commission certification of the Final EIR, issuance of Coastal Development Permit, and determination of consistency with the general plan
- SFPUC agreement with SFRPD for construction of recycled water-related facilities in Golden Gate Park, agreement with Presidio Trust of San Francisco setting forth terms for supply of recycled water to the Presidio, agreement with California Army National Guard for amendment of its lease with SFPUC to allow construction of a portion of the project on the leased area, construction contracts and other project implementation actions
- San Francisco Board of Supervisors appropriation of project funding, approval of new structure in Golden Gate Park (Charter Section 4.113 requires a two-thirds vote of the Board of Supervisors for construction of any new structures in the park.)
- SFRPD approval of agreement with SFPUC for construction of facilities for recycled water in Golden Gate Park and recommendation to the Board of Supervisors on construction of new structures in Golden Gate Park
- San Francisco Arts Commission approval of exterior design of structures on City property
- SFDPW and SFMTA approval of use of City streets for transmissions pipelines
- SFDPW approval of nighttime construction noise levels

B. PROJECT SETTING

As described above in Section A.3, Project Location, the project facilities would be located at several sites within western San Francisco, including the Oceanside WPCP and Golden Gate Park. The sites within the Oceanside WPCP and Golden Gate Park currently contain water resources infrastructure. The Oceanside WPCP site is surrounded on the southwest by the Great Highway and Fort Funston/Golden Gate National Recreation Area and on the southeast by Skyline Boulevard/State Route 35 and Lake Merced. On the west and north, the site is bordered by an open space buffer, the California Army National Guard armory, and the San Francisco Zoo. Buildings at the Oceanside WPCP were constructed within a large berm, and the roofs of many structures are covered with soil and planted with non-native landscaping. This berm generally separates the site from surrounding land uses. The areas surrounding the Central Reservoir and Panhandle sites are characterized by open space with recreational uses, including grassy areas, bicycle paths, and walking trails.

The Presidio Golf Course and Lincoln Park are also used for public recreation purposes and consist of facilities that are typically associated with golf courses, including greens, landscaping, and one- or two-story clubhouse facilities. The Presidio Golf Course is part of the Presidio National Historic Landmark.

As described below, the project sites are located within the Public Use district and the Open Space height and bulk district.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

C.1 San Francisco Planning Code

The San Francisco Planning Code (Planning Code), which incorporates the San Francisco Zoning Maps, governs permitted uses, densities, and configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless the project either conforms to the Planning Code or is granted an exception pursuant to provisions of the Planning Code.

C.2 Use District

The proposed project sites for the aboveground facilities are in the P Public Use district. Planning Code Section 234 states that the P district applies to land that is owned by a governmental agency and is in some form of public use, including open space. Principal uses of this district include structures and uses of CCSF and other governmental agencies and, under certain conditions, accessory nonpublic uses. The project would not conflict with the P Public Use requirements.

C.3 Height and Bulk District

The proposed project is within the Open Space height and bulk district. Planning Code Section 290 states that within the Open Space district, “the height and bulk of buildings and structures shall be determined in accordance with the objectives, principles and policies of the [General Plan], and no building or structure or addition thereto shall be permitted unless in conformity with the [General Plan].” Exemptions from height and bulk limitations are set forth in Planning Code Section 260(b). Section 260(b)(2)(M) provides an exemption for structures and equipment necessary for the operation of public utilities and government installations, where in conformance with the General Plan and otherwise permitted by the Planning Code. General Plan policies related to the height and bulk of objects in Open Space Districts include policies intended to preserve and improve the visual character of open spaces (e.g., ensuring consistency with the prevailing scale of development in the area). As described below under Section C.6, Plans and Policies, the proposed project would not obviously or substantially conflict with any General Plan goals, policies, or objectives and therefore is assumed to be in conformance with the Open Space height and bulk district guidelines. However, the San Francisco Planning Commission will ultimately determine whether the project, on balance, is consistent with most of the applicable objectives and policies of the General Plan and requirements for Open Space Districts.

C.4 Parking

The Planning Code does not specify parking requirements for the P Public Use District. As a result, the Zoning Administrator would determine the parking requirements applicable to the project. In general, it would be expected that sites that would simply contain infrastructure such as pumps or storage tanks would not require parking. Sites that would be occupied could be required to provide parking. As such, parking is only anticipated to be required at the proposed treatment plant at the Oceanside WPCP.

C.5 Loading

Similarly, the Planning Code does not specify loading requirements for the P Public Use District and loading requirements would be determined by the Zoning Administrator.

C.6 Plans and Policies

C.6.1 San Francisco Plans and Policies

San Francisco General Plan

The *San Francisco General Plan* (General Plan) provides general policies and objectives to guide land use decisions. The General Plan contains 10 elements—Commerce and Industry, Recreation and Open Space, Housing, Community Facilities, Urban Design, Environmental Protection, Transportation, Air Quality, Community Safety, and Arts—that set forth goals, policies, and objectives for the physical development of San Francisco. The proposed project would not obviously or substantially conflict with any General Plan goals, policies, or objectives. The compatibility of the proposed project with the General Plan goals, policies, and objectives that do not relate to physical and environmental issues will be considered by decision-makers as part of their assessment of whether to approve or disapprove the proposed project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the project.

In addition to the General Plan, a portion of the project area is within the Western Shoreline Area Plan, as described below.

Western Shoreline Area Plan

The Western Shoreline Area Plan, an area plan within the General Plan, is the CCSF plan for the Local Coastal Zone established by the California Coastal Act of 1976. The Western Shoreline Area Plan includes objectives and policies pertaining to open space in the area covered by the plan. The plan area extends approximately 6 miles from Fort Funston to the Point Lobos recreational area and includes the Lake Merced and Zoo areas. Policies related to the Lake Merced area include preserving recreational facilities, passive activities, playgrounds, and vistas of the Lake Merced area; maintaining a recreational pathway around the lake for multiple use; and only allowing activities that would not adversely affect the lake's water quality as a standby reservoir for emergency use. Zoo plan area policies relate to improvement of the quality of the zoo and its relationship to the coastal zone recreational system.

The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code to establish the following eight priority policies:

1. Preservation and enhancement of neighborhood-serving retail uses
2. Protection of neighborhood character (see Section E.1, Land Use and Land Use Planning, Question 1c)
3. Preservation and enhancement of affordable housing (see Section E.3, Population and Housing, Question 3b, with regard to housing supply and displacement issues)
4. Discouragement of commuter automobiles (see Section E.5, Transportation and Circulation, Questions 5a, 5b, and 5f)
5. Protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (see Section E.1, Land Use and Land Use Planning, Question 1c)
6. Maximization of earthquake preparedness (see Section E.14, Geology and Soils, Questions 14a through 14d)
7. Landmark and historic building preservation (see Section E.4, Cultural and Paleontological Resources, Question 4a)
8. Protection of open space (see Section E.9, Wind and Shadow, Questions 9a and 9b, and Question 10, Recreation, Questions 10a and 10c)

Prior to issuing a permit for any project that requires an Initial Study under CEQA, or issuing a permit for any demolition, conversion, or change of use, and prior to taking any action that requires a finding of consistency with the General Plan, the CCSF is required to find that the proposed project would be consistent with these priority policies. Consistency with policies applicable to the proposed project is discussed in Section E (specific subsections are noted in parentheses in the priority policies listed above).

San Francisco Bicycle Plan

In August 2009, the Board of Supervisors approved the San Francisco Bicycle Plan (Bicycle Plan), which includes a citywide bicycle transportation plan (comprised of a Policy Framework and a Network Improvement document) and implementation of specific bicycle improvements identified within the plan. The Bicycle Plan includes objectives and identifies policy changes that would enhance bicycle access and safety in San Francisco's "bike-ability." It also describes the existing bicycle route network (a series of interconnected streets in which bicycling is encouraged) and identifies gaps within the citywide bicycle route network that require improvement. The Bicycle Plan updates the 1997 Bicycle Plan. The final EIR analyzing the Bicycle Plan assessed a total of 56 short-term and long-term bicycle improvement projects. The adopted Bicycle Plan would implement minor improvements on the Great Highway, John F. Kennedy Drive, Martin Luther King Jr. Drive, and 47th Avenue. Project components would not be located in the vicinity of the Bicycle Plan improvements along Great Highway or 47th Avenue. However, proposed pipeline routes would be located along a short portion of John F. Kennedy Drive (just east of Transverse

Drive in Golden Gate Park) and would cross Martin Luther King Jr. Drive just north of the terminus of 34th Avenue.

C.7 SFPUC Plans and Policies

C.7.1 SFPUC Strategic Sustainability Plan

The SFPUC's 2011 Strategic Sustainability Plan provides a framework for planning, managing, and evaluating SFPUC-wide performance that takes into account the long-term economic, environmental, and social impacts of the SFPUC's business activities. This plan consists of a "Durable Section," which contains goals, objectives, and performance indicators to implement SFPUC's vision and values. The goals and objectives are then used to drive the "Dynamic Section" of the Sustainability Plan, which contains specific actions, targets, measures, and budgeting. The SFPUC utilizes this document to evaluate its performance semiannually, to provide an annual score card, and to help the SFPUC measure progress on an annual basis.¹⁸ The plan contains actions related to building WSIP projects on schedule, within scope and budget, and securing City agency approvals for WSIP projects.

The proposed project is a WSIP facility improvement project that would meet the SFPUC's objective in improving capital facilities.

C.8 San Francisco Recreation and Park Department Plans and Policies

C.8.1 Golden Gate Park Master Plan

The *Golden Gate Park Master Plan* (Master Plan), adopted by the Recreation and Park Commission in October 1998, is intended to provide a framework and guidelines to ensure responsible stewardship of Golden Gate Park. The Master Plan is a comprehensive planning document that includes general objectives and policies for the park, management strategies, and specific objectives and policies relating to park landscape, circulation, recreation facilities, visitor facilities, buildings and monuments, utilities and infrastructure, park maintenance and operations, and special area plans. The overarching goal of the Master Plan is to manage current and future park and recreation demands while preserving the historic significance of the park.¹⁹ Related to the Master Plan for Golden Gate Park is San Francisco Charter Section 4.113, which requires the Board of Supervisors by a 2/3 vote to approve buildings or structures in Golden Gate Park other than structures for nurseries, equipment storage, and comfort stations.

C.8.2 Park Code Section 3.19 Water Use Efficiency and Recycled Water

Park Code Section 3.19, adopted by the Recreation and Park Commission in April 2009, lays out a framework for maximizing water use efficiency and non-potable water use on all property under the jurisdiction of the Recreation and Park Commission. Park Code Section 3.19 calls for coordination between the SFRPD and the SFPUC to convert all park facility irrigation systems to water efficient systems and non-potable water use. The code also calls for the SFRPD to ensure that all renovated or rehabilitated irrigation

¹⁸ San Francisco Public Utilities Commission (SFPUC), *Strategic Sustainability Plan*, March 2011.

¹⁹ San Francisco Recreation and Park Department, *Golden Gate Park Master Plan*. Prepared by Royston Hanamoto Alley & Abey, October 1998.

systems within Recycled Water Use Areas²⁰ are compatible with the delivery of recycled water and that each golf course within jurisdiction of the Recreation and Park Commission utilizes recycled water. To aid in meeting these goals, the code calls for development of a Park Water Conservation Plan to identify top water consuming parks in the City and develop recommendations for increasing water use efficiency; and an Irrigation System Retrofits report to address needed retrofits to irrigation systems within City parks.

C.8.3 Other Plans

In 1995, the Recreation and Park Commission adopted a staff report on the Significant Natural Resource Areas Management Plan (SNRAMP). The staff report set forth general objectives, policies, and management actions to guide development of the SNRAMP. General policies and management actions in the staff report are relevant to biological resources in parts of Golden Gate Park and at Lake Merced, including general policies to maintain/promote indigenous plant species and control/remove invasive species, monitor wildlife populations, etc. The SFRPD is currently updating the SNRAMP.

C.9 Regional Plans and Policies

The recently adopted Plan Bay Area, which includes the region's Sustainable Communities Strategy, is a collaboration of the following four principal regional planning agencies and their policy documents that guide planning in the nine-county Bay Area:

- Association of Bay Area Governments: "Projections"
- Bay Area Air Quality Management District: *2010 Clean Air Plan* (2010 CAP)
- Metropolitan Transportation Commission: *Regional Transportation Plan – Transportation 2040*
- San Francisco Bay Conservation and Development Commission: *San Francisco Bay Plan*

In addition, the San Francisco Regional Water Quality Control Board's *San Francisco Basin Plan* guides planning of the water basin, and the California Coastal Act guides land use planning and development throughout the Coastal Zone.

The *Presidio Trust Management Plan* calls for implementation of water conservation measures including retrofitting landscaped areas with low-flow irrigation devices and pursuing the use of recycled water for irrigation and other non-potable water needs.²¹ Strategic Goal 3.6 of the *Presidio Trust 2005 – 2009 Strategic Plan* also calls for increasing the use of recycled water for landscape irrigation.²²

The project would not obviously or substantially conflict with any adopted environmental plan or policy adopted for the purpose of avoiding an environmental effect.

²⁰ Designated Recycled Water Use areas are defined per San Francisco Reclaimed Water Ordinances and San Francisco Public Works Code, as described and mapped at: <http://www.sfwater.org/index.aspx?page=687>.

²¹ The Presidio Trust, *Presidio Trust Management Plan: Land Use Policies for Area B of the Presidio of San Francisco*, May 2002. Available online at <http://www.presidio.gov/about/Administrative%20Documents/PLN-301-PTMP02-Plan.pdf>, accessed January 24, 2014.

²² The Presidio Trust, *The Presidio Trust Strategic Plan: Fiscal Year 2005 – 2009*. Available online at <http://www.presidio.gov/about/Administrative%20Documents/PLN-301-PTMP07-StratPlan.pdf>, accessed January 24, 2014.

C.10 Approvals and Permits

See Section A.7, Approvals Required, above for a discussion of applicable approvals and permits.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

<input type="checkbox"/>	Land Use	<input checked="" type="checkbox"/>	Air Quality	<input checked="" type="checkbox"/>	Biological Resources
<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Geology and Soils
<input checked="" type="checkbox"/>	Population and Housing	<input type="checkbox"/>	Wind and Shadow	<input checked="" type="checkbox"/>	Hydrology and Water Quality
<input checked="" type="checkbox"/>	Cultural and Paleo. Resources	<input type="checkbox"/>	Recreation	<input checked="" type="checkbox"/>	Hazards/Hazardous Materials
<input checked="" type="checkbox"/>	Transportation and Circulation	<input type="checkbox"/>	Utilities and Service Systems	<input type="checkbox"/>	Mineral/Energy Resources
<input checked="" type="checkbox"/>	Noise	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Agricultural and Forest Resources
				<input checked="" type="checkbox"/>	Mandatory Findings of Significance

E. EVALUATION OF ENVIRONMENTAL EFFECTS

All items on the Initial Study Checklist that have been checked “Less than Significant Impact,” “No Impact,” or “Not Applicable” indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked “Less than Significant Impact” and for most items checked with “No Impact” or “Not Applicable.” For all of the items checked “Not Applicable” or “No Impact” without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff and consultant experience and expertise on similar projects, and/or standard reference material available within the San Francisco Planning Department, such as the Planning Department’s *Transportation Impact Analysis Guidelines for Environmental Review*, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. For each checklist item, the evaluation has considered the impacts of the proposed project, both individually and cumulatively.

Approach to Cumulative Impact Analysis

Two approaches to a cumulative impact analysis are provided in CEQA Guidelines Section 15130(b)(1): (a) the analysis can be based on a list of past, present, and reasonably foreseeable future projects producing closely related impacts that could combine with those of a proposed project, or (b) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The following factors were used to determine an appropriate list of individual projects to be considered in this cumulative analysis:

- **Similar Environmental Impacts.** A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one that is “reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or has approved funding.

- **Geographic Scope and Location.** A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects to air quality consists of the affected air basin.
- **Timing and Duration of Implementation.** Effects associated with activities for a relevant project (e.g., short-term construction or demolition or long-term operations) would likely coincide in timing with the related effects of the proposed project.

Based on the above, the following plans and projects in the project site vicinity are examples of the types of projects considered in the cumulative impact analysis:

- **San Francisco Groundwater Supply Project.** The SFPUC is proposing a project that would provide an average of up to 4 mgd of groundwater to augment San Francisco's municipal water supply. The proposed groundwater well facilities would supply groundwater to existing reservoirs, where it would be blended with San Francisco's existing municipal water supply before distribution within San Francisco. The San Francisco Groundwater Supply Project well facilities would be located on the west side of San Francisco on land owned by CCSF. The project is under Planning Department Case No. 2008.1122E.
- **Vista Grande Drainage Basin Improvement Project.** The City of Daly City is proposing a project that would improve existing facilities and construct new facilities to screen stormwater, route flows to the existing Vista Grande Canal and to Lake Merced, route a portion of low flows through a constructed wetlands treatment system, control the water surface elevation in Lake Merced, and reduce the potential for localized flooding within the Vista Grande watershed. The Vista Grande stormwater system drains the northwestern portion of Daly City and an unincorporated portion of San Mateo County. The project consists of the following: partial replacement of the existing Vista Grande Canal to incorporate a gross solid screening device, a treatment wetland, and diversion and discharge structures to route some stormwater flows from the Vista Grande Canal to South Lake Merced; replacement of the existing Vista Grande Tunnel to expand its capacity; and replacement of the existing outfall structure at Fort Funston. These improvements would alleviate flooding and protect the ocean outfall from ongoing coastal erosion while reconnecting a significant portion of the Lake Merced Watershed.
- **Regional Groundwater Storage and Recovery Project.** The purpose of the WSIP Regional Groundwater Storage and Recovery Project is to further the use of the South Westside Groundwater Basin as an underground storage reservoir by storing water in the basin during wet periods for subsequent recapture during dry periods. This new dry-year water supply would be made available to the cities of Daly City and San Bruno, the California Water Service Company in its South San Francisco service area, and SFPUC wholesale water customers. The proposed project facilities would include up to 16 new groundwater production well facilities within the South Westside Groundwater Basin. Each groundwater well facility site would contain a groundwater production well, pump station, underground distribution piping, utility connections, and disinfection unit. Well facilities would be connected to Daly City, San Bruno, California Water Service Company, or SFPUC distribution systems. In addition, upgrades to the existing Westlake pump station in Daly City are planned as part of the project. Construction is scheduled for June 2014 through May 2016.
- **ParkMerced Project.** The proposed Parkmerced Project is a long-term mixed-use development program to comprehensively re-plan and redesign the site. The ParkMerced Project would: increase residential density, new commercial and retail services, modify transit facilities,

renewable energy, and improve utilities and open space. Over a period of approximately 20 years, 1,538 existing apartments would be demolished in phases and fully replaced, and an additional 5,679 net new units would be added to the Project Site, resulting in a total of about 8,900 units on the Project Site.^{23,24}

- **800 Brotherhood Way.** Construction of up to 182 dwelling units on an approximately 7.7 acre undeveloped site located on the north side of Brotherhood Way. The project would involve subdividing the site into about 121 lots and constructing 60 single-family homes and 61 2-unit dwellings, and includes additional on- and off-street parking, tree removal, and a new traffic light on Brotherhood Way. Construction is underway and is scheduled to conclude in early 2015.
- **Pacific Rod and Gun Club Upland Soil Remediation Action Project.** The SFPUC proposes to implement the Pacific Rod and Gun Club Upland Soil Remedial Action Project, which would remediate upland²⁵ soil contamination at the Pacific Rod and Gun Club, located at 520 John Muir Drive, on the southwest side of Lake Merced. Construction is scheduled for early 2015 and expected to require approximately one year.
- **Significant Natural Resources Area Management Plan Proposed Update.** Fragments of unique plant and animal habitats within San Francisco and Pacifica, known as Significant Natural Resource Areas, have been preserved within parks that are managed by the SFRPD. Management priorities have been set for these areas based on levels of sensitivity, species presence, and habitat complexity. The Lake Merced Natural Area covers approximately 395 of the lake's 614 acres and generally encompasses the lake, the bordering freshwater marsh wetland, and the upland vegetation. Implementation activities have not been scheduled yet, but could begin in 2014 or later.
- **Golden Gate Park, Lincoln Park, and Presidio Irrigation Retrofits and Additions.** Potential future actions could be required by recycled water customers to retrofit their irrigation facilities, which could include bringing systems into compliance with California Department of Public Health Services requirements and adding distribution systems for use of recycled water (e.g., the Presidio would install distribution systems to serve irrigated areas).
- **Beach Chalet Athletic Fields Renovation.** The project includes replacement of turf grassfields with synthetic turf, installation of field lighting, renovation of the existing restroom building, installation of player benches and seating, and other site modifications intended to improve the overall conditions of the facility and increase the amount of play time available on the athletic fields.

²³ San Francisco Planning Department, *Parkmerced Project*. Available online at <http://sf-planning.org/index.aspx?page=2529>. Accessed January 23, 2014.

²⁴ San Francisco Planning Department, *Final Environmental Impact Report, Parkmerced Project*, File No. 2008.0021E, State Clearinghouse No. 200905073. Available online at http://www.sf-planning.org/index.aspx?page=1828#2008_0021E. Accessed November 6, 2013.

²⁵ Upland refers to the elevated areas lying above the level where water flows or where flooding occurs.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
1. LAND USE AND LAND USE PLANNING—					
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact LU-1: The proposed project would not physically divide an established community. (Less than Significant)

The proposed project would construct a recycled water treatment plant, booster pump stations, distribution pipelines and storage, and associated infrastructure. After construction, sections of the pipeline installed during the project would be underground and would not divide an established community. The new aboveground facilities would be constructed adjacent to existing facilities with similar uses. Because the facilities would be relatively small in size, would be constructed in areas that are not commonly used by the public, and would not block access between adjacent land uses, operation of these facilities would not divide an established community. During construction, access to neighborhoods, commercial areas, industrial uses, schools, and parks could be temporarily modified by pipeline construction and lane closures. However, all such construction activities would be temporary. As a result, the impact would be *less than significant*.

Mitigation: None required.

Impact LU-2: The proposed project would not conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Land use impacts are considered to be significant if the proposed project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As described above in Section C, Compatibility with Existing Zoning and Plans, the proposed project would not obviously or substantially conflict with applicable plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the proposed project would have a *less-than-significant* impact with regard to conflicts with applicable plans, policies and regulations adopted for the purpose of avoiding or mitigating environmental effects.

Mitigation: None required.

Impact LU-3: The proposed project would not have a substantial impact upon the existing character of the vicinity. (Less than Significant)

Impacts on existing land use character in the project vicinity could result if the proposed project were to result in a long-term change in land use that would be incompatible or conflict with established land uses. The proposed project would be constructed within lands zoned for public uses owned by CCSF and within City streets.²⁶ As described above, the project would construct a recycled water treatment plant, booster pump stations, distribution pipelines and storage, and associated infrastructure. The approximately 30,000 square foot recycled water treatment plant, reconfigured chemical storage building, secondary effluent pumps, underground reservoir, and transmission pump station and wet well would be constructed within the existing Oceanside WPCP and on adjacent land leased by CCSF to the California Army National Guard (see Figure 2). The portion of the California Army National Guard site included in the proposed project is currently used as a landscaped berm and parking lot. Because the area is already in public use, the majority of which houses buildings and structures used for wastewater treatment purposes, the proposed project would not constitute a change in land use patterns and the recycled water treatment plant would be compatible with the existing character of the site.

At Lincoln Park, the project would connect to the existing pump station; no changes in land use would occur. At Golden Gate Park, the project would upgrade the following existing facilities: irrigation booster pumps in the Panhandle, and pump station and Central Reservoir at the Golden Gate Park Central Reservoir site. At the Central Reservoir, the project would also construct a new buried storage reservoir adjacent to the existing Central Reservoir and construct a new pump station that would be approximately 50 feet by 100 feet and 20 feet tall, adjacent to the existing 40 feet by 60 feet facility that is 19 feet tall. The new and upgraded facilities all would be located within the existing approximately 3.3 acre maintenance and wood waste storage area. Although the new and upgraded facilities would be within Golden Gate Park, they would be located adjacent to existing similar infrastructure and park maintenance facilities, and thus would not alter the existing land uses or character of these areas. After construction, the proposed reservoir underneath the recycled water treatment plant, the storage reservoir adjacent to the existing Central Reservoir in Golden Gate Park, and the pipeline installed during the project would be underground and would not be visible. Therefore, the proposed project's impact on the existing character of the project's vicinity would be *less than significant*.

Mitigation: None required.

Impact C-LU: The proposed project would not have a significant cumulative impact on land use. (Less than Significant)

The geographic scope for potential cumulative land use impacts encompasses land uses in the vicinity of project facilities. The area generally includes the western portions of San Francisco, including public street areas in the Sunset and Richmond Districts, the Oceanside WPCP, and portions of Golden Gate Park and

²⁶ San Francisco Planning Department, Zoning Map. Available online at <http://www.sf-planning.org/index.aspx?page=1569>. Accessed October 11, 2013.

Lincoln Park Golf Course. Long-term or permanent cumulative impacts on the existing character of the project vicinity could occur if the proposed project and cumulative projects in the western portion of San Francisco were to involve the construction of permanent aboveground facilities or alter the landscape in the same area. There are no known cumulative projects that would include substantial changes to the land use character of areas immediately adjacent to proposed project facilities. Further, as described above, the proposed project would not result in long-term adverse effects on the existing character of the project vicinity because all of the proposed project elements would be constructed underground or adjacent to existing infrastructure facilities, or would entail improvements to existing facilities and therefore would not substantially alter the existing uses or character of these areas. Thus, no significant cumulative land use impacts related to the existing character of the project vicinity would occur (*less than significant*).

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
2. AESTHETICS—Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact AE-1: The proposed project would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)

The proposed project is located in the vicinity of scenic resources and areas of high or moderate scenic quality, including the Great Highway, Golden Gate National Recreation Area, Golden Gate Park, and Lincoln Park. The project would include a recycled water treatment plant, booster pump stations, distribution pipelines and storage, and associated infrastructure. Construction activities associated with proposed pipelines would only be visible briefly as potential viewers pass the work area. After construction, pipelines would be below ground and the sites would be returned to their general pre-construction conditions.

The project includes both upgrade and modification of some existing infrastructure, as well as construction of new facilities. For upgrades to existing structures, there is no substantial change in visual character; the facility type and structure size would remain consistent with the existing structure. For new above-ground

structures, visibility is generally limited. More specifically, the recycled water treatment plant project area would be within the existing Oceanside WPCP and a portion of the adjacent area leased to the California Army National Guard and would not be visible from public areas. At Lincoln Park, the project connects to the existing pump station and no change to above ground structures would occur as a result of the proposed project.

At Golden Gate Park, the project would upgrade the following existing facilities: irrigation booster pumps in the Panhandle, and the pump station and Central Reservoir at the Golden Gate Park Central Reservoir site, which is within a fenced park maintenance area of limited visibility to park users. The upgrades would be below ground or within an existing structure, or in the case of the booster pumps, would include changes to mechanical elements and no change to the appearance of these facilities would occur. The project would construct a new underground storage reservoir adjacent to the existing Central Reservoir which would not be visible following completion of construction. The proposed project would construct a new pump station building within the fenced Central Reservoir and park maintenance area. The new pump station would be 20 feet tall, about a foot taller than the adjacent existing pump station, but not as tall as an existing cement wall attached to the existing pump station. Although there is some limited visibility of the existing Central Reservoir facilities from certain vantage points (i.e. South Drive), the Central Reservoir site is not located in an area that is highly used by park visitors (visitors in this area would likely be walking or bicycling along Overlook Drive). The type of building materials that would be used for the new pump station would be consistent with the existing facilities. As such, the new facilities would not substantially alter visual quality of this area, which serves as an existing maintenance area; the proposed project would have a *less-than-significant* impact on scenic vistas, scenic resources, and the scenic quality and character of the area. Vegetation removal may be required immediately adjacent to the existing entrance to the facility area and on the north side of Overlook Drive; however, the adjacent areas are heavily vegetated and removal of vegetation would not substantially alter views of the area. As discussed in Section A.6.2, Construction, following construction, disturbed areas would be repaved or otherwise returned to their general pre-project condition, including re-grading of the site and revegetation of disturbed areas.

Mitigation: None required.

Impact AE-2: The proposed project would not result in a substantial source of light and glare. (Less than Significant)

As described above, the recycled water treatment plant would be mostly within the existing Oceanside WPCP, and not visible from public areas. The facility would not include rooftop or other lighting that could project beyond the existing interior areas of the WPCP. Lighting associated with the Central Reservoir, if required, would be within a fenced area that is not in the vicinity of light-sensitive receptors such as residential areas. New operational lighting would be consistent with existing security lighting over doorways, which are operated on timers. As discussed in Section A.6.2, Construction, nighttime pipeline construction may be required for limited durations at certain locations. However, as discussed in that section, nighttime lighting would be used and directed downward to ensure safe illuminated areas for construction workers and to minimize glare effects. For these reasons, the proposed project would have a *less-than-significant* light and glare impact.

Mitigation: None required.

Impact C-AE: The proposed project would not have a significant cumulative impact on aesthetics. (Less than Significant)

The geographic scope for potential cumulative aesthetics impacts includes areas adjacent to proposed project locations. The geographic scope for potential long-term aesthetic impacts includes the Central Golden Gate Park area. Cumulative impacts on aesthetic resources in the project vicinity could occur if the proposed project in combination with other projects in these areas could result in a substantial adverse effect on a scenic vista, substantially damage a scenic resource, substantially degrade the existing visual character of the site and its surroundings, or result in a source of substantial light or glare. However, there are no known cumulative projects that would include substantial changes to the aesthetic resources of areas immediately adjacent to proposed project facilities. Further, as described above, the proposed project would not result in adverse effects on the existing aesthetic resources because construction activities associated with proposed pipelines would only be visible briefly, all of the proposed project elements would be constructed underground or in areas not visible from public areas and adjacent to existing infrastructure facilities, or would entail improvements to existing facilities and therefore would not substantially alter aesthetic resources of these areas. Thus, the proposed project would not result in a significant cumulative impact on aesthetic resources.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
3. POPULATION AND HOUSING— Would the project:					
a) Induce substantial 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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact PH-1: The proposed project would not induce substantial population growth, either directly or indirectly. (Less than Significant)

In general, a project would be considered growth-inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project were not implemented. The project would not directly involve the development of new housing to attract

additional population, nor would it indirectly induce growth by establishing substantial permanent employment opportunities that could stimulate population growth. There could be a temporary demand for housing during construction to provide housing for workers; however the project is not expected to involve employment opportunities substantially beyond what would normally be available to construction workers in the area, and workers are expected to be drawn from the local labor pool. It is expected that the construction workforce requirements could be met using San Francisco Bay Area labor and that construction employees would commute from elsewhere in San Francisco or the Bay Area, rather than relocate from more distant cities and towns. Although some workers might temporarily relocate from other areas, any population increase due to this relocation would be minor (fewer than 45 workers) and temporary. The recycled water treatment plant would provide new employment opportunities, but these jobs are not expected to induce population growth because the existing available SFPUC labor pool is sufficient to meet the project needs. The number of such employees would be minute compared to the total population and the available housing stock in San Francisco and the Bay Area; thus, it would not generate a substantial, unplanned population increase. As a result, project-related direct effects with respect to population and housing would be *less than significant*.

The project would contribute to the WSIP goals through the development of recycled water as an alternative water supply for nonpotable uses, thereby benefiting the regional system by reducing demands for potable water, or making more potable water available for new customers. The project, as a facility improvement project in the WSIP, would be a contributing factor in the growth-inducement potential of the overall WSIP. Growth inducement of the proposed project within the context of the WSIP and the regional water system will be discussed in the EIR discussion of Growth-Inducing Impacts, including a discussion of indirect effects of the project on population and housing growth, due to growth inducement potential, and secondary effects of growth.

Mitigation: None required.

Impact PH-2: The proposed project would not displace existing housing units or substantial numbers of people, nor would it create substantial demand for additional housing that would necessitate the construction of replacement housing. (No Impact)

As noted above, the project does not include development or removal of any residential or commercial uses, nor is any planned. Hence, no residents would be displaced as a result of the project; therefore, there would be *no impact*.

Mitigation: None required.

Impact C-PH: The proposed project would not have a project-specific impact on population and housing and, therefore, would not directly result in a significant cumulative impact on population and housing, but could result in an indirect impact related to growth inducement. (Potentially Significant)

The geographic scope for potential cumulative population and housing impacts includes the SFPUC water supply service area. However, as discussed in the Project Description, the proposed project's direct

contribution to population and housing growth is less than significant and not expected to involve employment opportunities substantially beyond what would normally be available to construction workers in the area, and workers are expected to be drawn from the local labor pool. Therefore, the project would not directly contribute to any significant cumulative effect on population and housing (*less than significant*).

As noted above, as a facility improvement project in the WSIP, the project would be a contributing factor in the growth-inducement potential of the overall WSIP. Growth inducement of the proposed project within the context of the WSIP and the regional water system will be discussed in the EIR discussion of Growth-Inducing Impacts, including a discussion of potentially significant indirect effects of the project on population and housing growth, due to growth inducement potential, and secondary effects of growth.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
4. CULTURAL AND PALEONTOLOGICAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco <i>Planning Code</i> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Construction activities that would be required to implement the project, such as excavation activities, have the potential to impact cultural resource that may be located within or adjacent to the project area. Therefore, the project effects on historical resources, archeological resources, paleontological resources, and human remains will be analyzed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
5. TRANSPORTATION AND CIRCULATION – Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not near an airfield; San Francisco International Airport is approximately eight miles to the southeast, and Metropolitan Oakland International Airport is approximately 14 miles to the east. These distances are outside of the limits of established height restrictions for development in the vicinity of airports, described in Federal Aviation Administration (FAA) regulations.²⁷ Therefore, the Topic 5.(c) is *not applicable*.

The proposed project could result in temporary construction-related transportation- and circulation-related impacts. Construction activity effects on transportation and circulation, including intersection operations, transit demand, and impacts on pedestrian and bicycle circulation, will be analyzed in the EIR (Topic 5.(a) and (d) through (f)).

²⁷ Federal Aviation Administration (FAA). Federal Regulations Part 77 (14 CFR 77). <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=14:2.0.1.2.9&idno=14>. Accessed April 28, 2014.

Impact TR-1: The project would not result in a conflict with an applicable congestion management program (Less than Significant).

The project site is located in the City and County of San Francisco, which has established level-of-service (LOS) standards and a congestion management plan (CMP) that are intended to monitor and address long-term traffic impacts due to future development, but do not apply to temporary impacts associated with construction projects. Operation of the recycled water treatment plant would require approximately four full-time employees, while the operation and maintenance of other project facilities would utilize existing SFPUC employees. An increase of four full-time employees would not be substantial as long-term traffic generated by the increase in employees would be minute compared to the total current volumes. Furthermore, the increased traffic trips would not impact the LOS standards and CMP roadways or local roadways during operation. Therefore, with respect to project operations, Topic 5(b) is *less than significant*.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
6. NOISE – Would the project:					
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not within an airport land use plan area, nor is it in the vicinity of a private airstrip. The project would not be affected by existing noise levels because proposed recycled water facilities are not a noise-sensitive use. Therefore, Topics 6.(e), 6.(f), and 6.(g) are *not applicable*.

Sensitive Receptors. People in residences, schools, libraries, churches, hospitals, nursing homes, and auditoriums are generally more sensitive to noise than those at commercial and industrial establishments. Consequently, the noise standards for such sensitive land uses are more stringent than those for less sensitive uses. Sensitive receptors in the vicinity of project components include residences, schools, hospitals, and religious facilities. In general, residences and schools are among the land uses considered to be the most sensitive to noise. Active parks, recreation centers, and playgrounds are not as sensitive to noise as residences, schools, hospitals, or convalescent care facilities, because the levels of background noise at parks and recreation centers with active recreational uses and school playgrounds are elevated. However, users of natural recreation areas may value an increased degree of quiet for passive recreational uses.²⁸ The closest sensitive receptors are residential uses located as close as approximately 1,900 feet from the proposed recycled water treatment plant at the existing SFPUC Oceanside WPCP (3500 Great Highway), 1,000 feet from proposed facilities at the Central Reservoir site in Golden Gate Park, and 20 to 25 feet from the proposed distribution pipeline alignments that extend through the Sunset and Richmond Districts.

During construction, the project would potentially result in a substantial temporary increase in ambient noise levels in the project vicinity above levels existing without the project, and could expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code). Therefore, the EIR will evaluate the proposed project's construction related impacts.

Impact NO-1: The project would not result in substantial groundborne vibration or groundborne noise levels. (Less than Significant)

Groundborne noise is that which is experienced inside a building or structure from vibrations produced outside of the building and transmitted as ground vibration between the source and receiver. Groundborne noise can be a problem in situations where the primary airborne noise path is blocked, such as in the case of a subway tunnel passing near homes or other noise-sensitive structures. The project's noise and vibration-generating construction activities would involve shallow excavation of pipeline trenches for distribution pipelines, and no tunneling or underground construction activities would be associated with this project component. Deeper excavation activities would occur during construction of proposed underground storage facilities at the Oceanside WPCP and proposed storage tank/reservoir at the Central Reservoir site, but the closest off-site structures are located approximately 700 feet away at the Oceanside WPCP and 1,000 feet away from the Central Reservoir site (excluding existing structures at the Oceanside WPCP and Central Reservoir site, which SFPUC would presumably ensure are not damaged by project construction activities). At this distance, adjacent or nearby uses would not be affected by groundborne noise. Therefore, construction-generated groundborne noise associated with the proposed project would be *less than significant*.

This analysis applies a significance threshold of cosmetic damage to buildings of 0.5 inch per second (in/sec) peak particle velocity (PPV). Typical vibration levels from various types of construction equipment at 20 feet are listed in **Table 2**; some of these are similar to the equipment proposed to be used for this project.

²⁸ Construction noise effects on wildlife is discussed under Biological Resources.

**TABLE 2
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	Peak Particle Velocity (in/sec)
	At 20 Feet ^a
Large vibratory compactor (Truck-mounted)	0.293
Large bulldozer/earthmoving equipment	0.124
Loaded trucks	0.106

^a Vibration amplitudes for construction equipment assume normal propagation conditions.
SOURCE: FTA, 2006.²⁹

As indicated in Table 2, project-related construction activities would generate vibration levels well below the 0.5-in/sec PPV vibration threshold for adjacent buildings. This would be true even if two pieces of equipment (e.g., two excavators or two trucks) were both operating 20 feet from a structure. Therefore, vibration effects on adjacent or nearby offsite buildings or structures would be *less than significant*.

Mitigation: None required.

Impact NO-2: Project operations would not result in the exposure of persons to, or generation of, noise levels in excess of standards or a substantial increase in ambient noise levels in the project vicinity. (Less than Significant)

Project components would include treatment, storage, and distribution facilities. The primary sources of noise associated with project facilities would be pumps at the proposed recycled water treatment plant adjacent to the Oceanside WPCP as well as at the Central Reservoir pump station in Golden Gate Park. An emergency back-up generator would also be a potential occasional source of noise at the Central Reservoir pump station. There would be no noise sources associated with proposed distribution pipelines, and no noise increases would occur as a result of their operation or maintenance.

Pump Operation. Pumps are the primary source of noise typically associated with the operation of water facilities. The degree of impact would differ for each part of the project, and would depend on pump sizes, proximity to sensitive receptors, and the extent of noise attenuation incorporated into the facility design. The San Francisco Noise Ordinance (Police Code Section 2909[d]) states the following:

(d) Fixed Residential Interior Noise Limits. In order to prevent sleep disturbance, protect public health and prevent the acoustical environment from progressive deterioration due to the increasing use and influence of mechanical equipment, no fixed noise source may cause the noise level measured inside any sleeping or living room in any dwelling unit located on residential property to exceed 45 dBA³⁰ between the hours of 10:00 p.m.

²⁹ U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

³⁰ Because the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called "A-weighting," expressed as "dBA." The A-weighted decibel, dBA, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA.

to 7:00 a.m. or 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. with windows open except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

On average, open windows typically reduce exterior noise levels by approximately 15 dBA, while closed windows reduce noise levels by approximately 25 dBA.³¹ Therefore, the maximum exterior noise limit that would ensure interior noise levels do not exceed 45 dBA during the nighttime hours (10:00 p.m. to 7:00 a.m.) and 55 dBA during the daytime hours (7:00 a.m. to 10:00 p.m.) would be 60 dBA and 70 dBA, respectively. Since proposed pumps, which are considered to be fixed noise sources, could operate during the daytime or nighttime hours, this analysis applies both exterior noise limits of 60 dBA (L_{eq})³² and 70 dBA (L_{eq}).

The proposed recycled water treatment plant would operate a total of 13 pumps, including two very small pumps (5 horsepower (hp) or less), four small pumps (50 to 75 hp), and seven large pumps (200 to 250 hp) at any given time. All pumps would be located in a building enclosure. As shown in **Table 3** below, concurrent operation of 13 pumps at this facility are estimated to generate noise levels of up to 82 dBA (L_{eq}) at 50 feet or 88 dBA (L_{eq}) at 25 feet. However, since the proposed facility at the Oceanside WPCP is surrounded by an earthen berm and the pumps would be enclosed, estimated noise levels would be 18 to 33 dBA (L_{eq}) at the property boundary (outside the berm) and up to 19 dBA (L_{eq}) at the closest residential receptor, which is approximately 1,900 feet to the east (across Lake Merced on Lakeshore Boulevard). The estimated noise levels of up to 19 dBA (L_{eq}) would not exceed the ordinance 60-dBA nighttime and 70-dBA daytime exterior noise limits described above, and the estimated 18 to 33 dBA (L_{eq}) at the property boundary would remain below the minimum measured ambient nighttime noise level of 41 dBA (L_{eq})³³ along Zoo Road near the property boundary. Therefore, noise generated by project operation would not cause interior noise levels at the closest residences to exceed the 45-dBA and 55-dBA (L_{eq}) interior limits (windows open) nor would ambient noise levels in the project vicinity increase substantially, resulting in a *less than significant* impact.

The project would include operation of three large pumps (150 hp) within a building enclosure at the Central Reservoir site in Golden Gate Park (four 150 hp pumps are proposed within the enclosure with up to three pumps operating at any given time and one on standby). As shown in Table 3, operation would generate noise levels of 76 dBA (L_{eq}) at 50 feet. However, accounting for the enclosure of the pumps and the distance of approximately 100 feet to the nearest park users on Overlook Drive, the estimated noise levels would be 45 dBA (L_{eq}) at the closest potential receptor. Such noise levels would remain below measured ambient noise levels of 47 to 74 dBA, L_{eq} , during park operating hours of 7 a.m. and 10 p.m., and at or below the lowest measured ambient nighttime noise level of 45.3 dBA, L_{eq} .³⁴ Such levels are considered to be a less-than-significant impact since the noise level associated with the project would not perceptibly increase ambient levels. Moreover, the lowest existing ambient noise levels occur during the nighttime when people are not permitted to use the park. At the closest residential receptors located approximately

³¹ U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, Table B-4*, March 1974. Available online at http://www.fican.org/pdf/EPA_Noise_Levels_Safety_1974.pdf.

³² L_{eq} : Variations in noise exposure over time are typically expressed in terms of a steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement.

³³ ESA. 2008. "San Francisco Westside Recycled Water Project (CS-822), Environmental Technical Memorandum – Noise." November 18, 2008.

³⁴ Ibid.

**TABLE 3
ESTIMATED OPERATIONAL NOISE LEVELS AT THE CLOSEST SENSITIVE RECEPTORS AND CONSISTENCY WITH SIGNIFICANCE CRITERIA**

Project Component/ Receptor Location	Pump Size (Horsepower per Pump)	Maximum Number of Duty Pumps Operating at One Time	Reference Hourly L_{eq} in dBA @ 50 feet ^a	Distance between Project and Closest Residential Receptor (feet)	Distance and Enclosure Adjustments (dBA)	Adjusted L_{eq} (dBA)	Lowest Applicable Ordinance Exterior Noise Limit (dBA) ^b	Does Project Noise Exceed Limit?
Recycled Water Treatment Plant at Oceanside WPCP								
MF/UF Backwash Pump	50	1	66	1,900	-63	3	60	No
MF/UF CIP Circulation and/or Drain Pump	75	1	68	1,900	-63	5	60	No
High Pressure Feed Pumps	250	3	78	1,900	-63	15	60	No
RO Permeate/CIP Pumps	60	2	70	1,900	-63	7	60	No
Neutralization Tank Transfer Pumps	3	1	54	1,900	-63	0	60	No
Decarbonator Pumps	5	1	56	1,900	-63	0	60	No
RW Distribution Pumps to GGP Park	200	2	75	1,900	-63	12	60	No
Secondary Effluent Pumps at Pump Gallery	200	2	75	1,900	-63	12	60	No
Combined Noise Level		13	82	1,900	-63	19	60	No
Central Reservoir Pump Station at Golden Gate Park								
RW Distribution Pumps to GGP Park	150	3	76 ^c	1,000	-51	25	60	No

NOTES:

hp = horsepower

^a Estimated noise levels are based on a reference noise level of 69 dBA (L_{eq}) for a 1,800-rpm, 100-Hp pump. This level was adjusted for the proposed Hp rating of proposed pumps to establish an average pump noise level (L_{eq}) as follows: $L_{eq1} = L_{eqR} + K * \log; (HP_1/HP_R)$ are the horsepower ratings of the candidate and reference pumps, and K is a pump constant. Pump noise level was obtained from Bruce and Moritz (1998).³⁵ Since pumps would be enclosed, pump noise levels would actually be at least 25 dBA lower than the unenclosed noise level listed above. To evaluate worst-case conditions, this analysis assumes the above-listed equipment would operate simultaneously 24 hours per day, not be enclosed, and all pumps would be located at the project boundary closest to the receptor. It also assumes that no reduction is applied to any intervening development that interrupts the line of sight between the noise source and receptors.

^b The San Francisco Noise Ordinance (Police Code Section 2909(d)) interior noise limits from fixed noise sources are 45 dBA between 10:00 p.m. and 7:00 a.m. and 55 dBA between 7:00 a.m. and 10:00 p.m. with windows open. These interior noise limits are equivalent to exterior noise limits of 60 dBA between 10:00 p.m. and 7:00 a.m. and 70 dBA between 7:00 a.m. and 10:00 p.m. at the closest residential receptors (windows open).

^c The equivalent noise level from operation of these three, enclosed pumps at Overlook Drive in Golden Gate Park (the closest location to potential park users) would be 45 dBA (L_{eq}). Such noise levels would remain below measured ambient noise levels during park operating hours (47 to 74 dBA, L_{eq} , between 7 a.m. and 10 p.m.) and at or below measured ambient nighttime noise levels (lowest measured level was 45.3 dBA, L_{eq}).³⁶ Such levels are considered to be a less-than-significant impact since the lowest ambient noise levels only occur during the night when people don't use the park.

SOURCE: Orion Environmental Associates

³⁵ Bruce, R.D. and C.T. Moritz. 1998. "Sound Power Level Predictions for Industrial Machinery." *Handbook of Acoustics*. Chapter 69. New York: John Wiley & Sons, Inc.

³⁶ ESA. 2008. "San Francisco Westside Recycled Water Project (CS-822), Environmental Technical Memorandum – Noise." November 18, 2008.

1,000 feet away, pump noise levels would be 25 dBA (L_{eq}) with enclosure of the pumps. Such noise levels would not exceed the ordinance 60-dBA nighttime and 70-dBA daytime exterior noise limits described above. Therefore, noise generated by proposed pump operations at this site would not substantially increase ambient noise levels or cause interior noise levels at the closest residences to exceed the interior limits (windows open), a *less than significant* impact.

Emergency Power Generators. A portable diesel generator would be available to provide backup power to enable operation of the Central Reservoir pump station at Golden Gate Park during an emergency, but would not be required at the recycled water treatment plant given the availability of emergency power supply at the Oceanside WPCP. As discussed in Section A.6.3, Operations and Maintenance, it is assumed that existing SFPUC portable generators would be used for the project and testing of such equipment would not likely be conducted at the Central Reservoir. However, this analysis considers the effect of use of an emergency generator at the Central Reservoir site. As stated above, the San Francisco Noise Ordinance (Police Code Sections 2909[d]) equivalent exterior noise limits (with windows open) from fixed noise sources are 60 dBA between 10:00 p.m. and 7:00 a.m. and 70 dBA between 7:00 a.m. and 10:00 p.m. at the closest residential receptors.

The emergency generators would create temporary noise from use during a power failure and during periodic testing to ensure their continued reliability, and could operate continuously following a catastrophic emergency until electric power service is restored to the area. Sound levels from these generators vary depending on the type of generator and the noise attenuation that has been incorporated into its design. Without any noise attenuation, the emergency generators could generate sound levels of up to 76 dBA at 50 feet from the generator.³⁷ As shown in **Table 4**, operation of emergency generators for maintenance as well as during power outages would produce noise levels of approximately 50 dBA (L_{eq}) at the closest residential receptors near the Central Reservoir site. Generator-related noise would not exceed the ordinance’s 60-dBA nighttime and 70-dBA daytime exterior noise limits at the closest residential receptors, and therefore, noise generated by proposed emergency generators would not cause interior noise levels at the closest residences to exceed the above ordinance 45-dBA and 55-dBA interior limits (windows open), a *less than significant* impact.

TABLE 4
AMBIENT NOISE LEVEL INCREASE FROM EMERGENCY GENERATOR USE

Location	Emergency Generator Noise Level (L_{eq}) at 50 feet	Emergency Generator Noise Level (L_{eq}) at Closest Residential Receptor Located 1,000 feet Away	Lowest Applicable Ordinance Exterior Noise Limit	Does Project Noise Exceed Limit?
Central Reservoir Pump Station Site	76	50	60	No

Mitigation: None required.

³⁷ U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
7. AIR QUALITY – Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

There would be no point source emissions that would expose sensitive receptors to substantial pollutant concentrations associated with the operation of proposed pipeline, reservoir, and pumping facilities; there would not be any vents where air emissions would be released. For the recycled water treatment facilities, the only point source emissions typically associated with these facilities are emergency generators. However, no new emergency generators are proposed as part of the project. The Oceanside WPCP already has emergency power supply facilities, and the recycled water treatment plant would connect to these facilities during an emergency. Existing SFPUC portable diesel generators would be transported from an offsite SFPUC storage location to provide backup power to the Central Reservoir facility during an emergency. Since the proposed recycled water treatment plant facility would not require addition of an emergency generator and there are no emissions associated with the filters or UV disinfection systems, there would be no new stationary point sources associated with the project. However, any emergency power outages at project facilities would result in temporary, incremental increases in criteria pollutant emissions associated with operation of the portable diesel generators. Since such emissions would only occur periodically (during an emergency only and minimal when considered on a daily basis), the project's operational daily emissions would be limited to mobile sources associated with maintenance operations.

Operation of the recycled water treatment plant facilities at the Oceanside WPCP site would require four full-time employees. Operation and maintenance of other project facilities would utilize existing SFPUC employees. Therefore, mobile source emissions associated with project operation would not be substantial and would be limited to up to eight additional one-way vehicle trips generated by the four new project-related employees and an average of two to four one-way truck trips per week associated with one or two weekly chemical deliveries (up to two one-way truck trips per day from up to four weekly chemical deliveries during peak production).

The primary pump station at the proposed recycled water treatment plant would operate as needed to meet demand and fill reservoirs in the distribution system. The booster pumps in the system would operate on

an as-needed basis to maintain pressure in the system. These new facilities would increase the demand for electricity, and if electricity were generated from fossil fuel sources, an indirect increase in criteria pollutant emissions would be attributable to project operation. However, under normal conditions, all facilities would utilize renewable energy in the form of hydroelectric power from the Hetch Hetchy Regional Water System. Therefore, project-related operational increases in electricity demand is not expected to indirectly increase criteria pollutant emissions.

As explained above, project operation would not result in generation of substantial pollutant concentrations or otherwise result in air quality impacts. However, construction of the proposed project could result in violation of air quality standards or expose sensitive receptors to substantial pollutant concentrations. Therefore, the EIR will evaluate the proposed project’s construction air quality impacts.

Impact AQ-1: The project would not create objectionable odors that would affect a substantial number of people. (Less than Significant)

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. The proposed above ground project facilities would be located at the existing Oceanside WPCP and Central Pump Station, and would not include a new source of odors within proximity to sensitive receptors. Therefore the project would not create a significant source of new odors and odor impacts would be *less than significant*.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
8. GREENHOUSE GAS EMISSIONS— Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will contribute to global climate change and its associated environmental impacts.

The Bay Area Air Quality Management District (BAAQMD) has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of greenhouse gases and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions* (GHG Reduction Strategy)³⁸ which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's Qualified GHG Reduction Strategy in compliance with CEQA guidelines. The actions outlined in the strategy have resulted in a 14.5 percent reduction in GHG emissions in 2010 compared to 1990 levels, exceeding the year 2020 reduction goals outlined in the BAAQMD's *2010 Clean Air Plan*, Executive Order S-3-05,³⁹ and Assembly Bill 32 (also known as the Global Warming Solutions Act.)^{40,41}

Given that the City's local greenhouse gas reduction targets are more aggressive than the State and Region's 2020 GHG reduction targets and consistent with the long-term 2050 reduction targets, the City's Greenhouse Gas Reduction Strategy is consistent with the goals of EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan. Therefore, proposed projects that are consistent with the City's Greenhouse Gas Reduction Strategy would be consistent with the goals of EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Given the analysis is in a cumulative context, this section does not include an individual project-specific impact statement.

Impact C-GG-1: The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions

³⁸ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. The final document is available online at: <http://www.sf-planning.org/index.aspx?page=2627>.

³⁹ Executive Order S-3-05, sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million MTCO₂E); by 2020, reduce emissions to 1990 levels (estimated at 427 million MTCO₂E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO₂E).

⁴⁰ San Francisco Department of Environment (DOE), "San Francisco Community-Wide Carbon Emissions by Category." Excel spreadsheet provided via email between Pansy Gee, DOE and Wade Wietgreffe, San Francisco Planning Department. June 7, 2013.

⁴¹ The *Clean Air Plan*, Executive Order S-3-05, and Assembly Bill 32 goals, among others, are to reduce GHGs in the year 2020 to 1990 levels.

from electricity providers, energy required to pump, treat, and convey water, and emissions associated with waste removal, disposal, and landfill operations.

The proposed project would increase the activity onsite by constructing and operating a recycled water treatment plant and underground storage, and distribution facilities. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and operations that result in an increase in energy use, water use, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. The regulations that are applicable to the proposed project include the Commuter Benefits Ordinance, Emergency Ride Home Program, Bicycle Parking requirements, Mandatory Recycling and Composting Ordinance, SF Green Building Requirements for Energy Efficiency, and Stormwater Management. Compliance with these regulations will reduce GHG emissions associated with the construction and operation of the project, largely by reducing use of fossil fuels.

These regulations, as outlined in San Francisco's *Strategies to Address Greenhouse Gas Emissions*, have proven effective as San Francisco's GHG emissions have measurably reduced when compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan GHG reduction goals for the year 2020. The proposed project was determined to be consistent with San Francisco's GHG Reduction Strategy.⁴² Other existing regulations, such as those implemented through AB 32, will continue to reduce the proposed project's contribution to climate change. Therefore, the proposed project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and thus the proposed project's contribution to GHG emissions would not be cumulatively considerable or generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

For informational purposes it is noted that in 2009, pursuant to San Francisco's Greenhouse Gas Reduction Ordinance, the SFPUC presented a departmental climate action plan focused on energy efficiency and renewable energy programs that would help reduce GHG emissions. The total energy savings potential for all SFPUC facilities is estimated to be 11.8 million kilowatt-hours of electricity. A number of SFPUC energy-efficiency and renewable energy generation projects have already been implemented, and many more are in the planning, design, or construction phases.⁴³

The SFPUC manages and implements energy-efficiency projects in municipal buildings and facilities and provides energy-efficiency services such as energy audits and design and construction management. Energy-efficiency technologies are commonly applied to lighting; heating, ventilation, and air conditioning;

⁴² SF Planning Department. Compliance Checklist for Greenhouse Gas Analysis: Table 2. Municipal Projects, SFPUC San Francisco Westside Recycled Water Project, June 16, 2014. This document is available for review as part of Case File No. 2008.0091E at the SF Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103.

⁴³ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. The final document is available online at: <http://www.sf-planning.org/index.aspx?page=2627>.

facility pumps and motors; and electrical controls. The SFPUC estimated that the energy-efficiency improvement projects had resulted in a CO₂ emissions reduction of approximately 11,000 MT per year since 2007.⁴⁴

The SFPUC currently operates over 2 megawatts of solar electric photovoltaic projects throughout San Francisco that collectively generate over 2 million kilowatt-hours of clean renewable electricity annually. A large-scale solar electric photovoltaic project planned for Sunset Reservoir is expected to produce an additional 5 megawatts of solar energy. Other potential opportunities for large-scale solar projects are being considered for the SFPUC Tesla Portal facility in San Joaquin County and for SFPUC water supply facilities in the Sunol Valley. In addition, the SFPUC has installed wind-monitoring equipment at sites in and around the San Francisco Bay Area and the Sierra Nevada mountains to evaluate the potential for wind power development.⁴⁵ SFPUC projects that reduce electrical energy consumption and/or generate renewable energy help reduce GHG emissions associated with SFPUC facility operations.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
9. WIND AND SHADOW – Would the project:					
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact WS-1: The proposed project would not alter wind in a manner that substantially affects public areas. (Less than Significant)

The proposed project would include construction and operation of a recycled water treatment plant, reservoir underneath the recycled water treatment plant used during the treatment process, pump stations, distribution pipelines, new buried storage reservoir adjacent to the existing Central Reservoir, and associated infrastructure. All proposed pipelines and reservoirs would be installed below ground and would not alter wind patterns in the project area. Once constructed, the recycled water treatment building would be 40 to 45 feet high. This building would be located in the Oceanside WPCP complex and would not exceed the current building height of the complex, which is restricted from public use. The topography of the site is such that the recycled water treatment plant would be situated in a depressed area surrounded by a berm. As such, the elevation of the building would not contribute to wind pattern alteration in a manner that would substantially affect public areas. Upgrade of the existing Central Reservoir pump station and the

⁴⁴ Ibid.

⁴⁵ Ibid.

addition of a new pump station building would be located at an existing facility. The existing pump station building is the largest structure on the site, covering an area approximately 40 feet by 60 feet, and approximately 19 feet tall with a connecting cement wall which is approximately 25 feet tall and 120 feet long. The new pump station building would be approximately 50 feet by 100 feet and 20 feet in height, which is somewhat larger but approximately the same height as the existing adjacent pump station building and shorter than the connecting cement wall, with a height of approximately 25 feet. The height of the new building would not be of a size that would substantially alter wind patterns in a manner that adversely affects public use. Further, the Central Reservoir pump station site is enclosed by a fence and within a forested area not highly used by the public. For this reason, any changes in wind speeds due to the project would be *less than significant*.

Mitigation: None required.

Impact WS-2: The proposed project would not create new shadow in a manner that could substantially affect outdoor recreation facilities or other public areas. (Less than Significant)

The project does not propose any features that would substantially affect shadow patterns of recreation facilities or public areas. As described above, the proposed project would construct new structures, including the recycled water treatment plant building and Central Reservoir pump station, that could result in new shadows; however, these facilities would not substantially affect outdoor recreational facilities or other public areas because of their siting relative to surrounding uses and site inaccessibility. The recycled water treatment plant would be 40 to 45 feet high and would be within the Oceanside WPCP complex, which is restricted from public access. The new pump station structure at the Central Reservoir would be adjacent to the existing pump station, surrounded by forested areas, and within a fenced area not accessed by the public. The new pump station structure would be larger than the existing pump station, as discussed in Impact WS-1. However, due to the size, height, and placement of these buildings, shading would not affect actively used public areas. All proposed pipelines and reservoirs would be installed below ground and would not affect shadow patterns of recreation facilities or public areas. For these reasons, the project would not create new shadow that would substantially affect outdoor recreational facilities or other public areas. As a result, the impact would be *less than significant*.

Mitigation: None required.

Impact C-WS: The proposed project would not have significant cumulative wind and shadow impacts. (Less than Significant)

The geographic scope for potential cumulative wind and shadow impacts encompasses land uses in the vicinity of project facilities. The area generally includes the Sunset and Richmond Districts, Golden Gate Park, Lincoln Park Golf Course, and the Presidio. Long-term or permanent cumulative wind and shadow impacts could occur if the proposed project and cumulative projects in the western portion of San Francisco were to involve permanent aboveground facilities that would also contribute to alteration of wind patterns and speed, or shadows affecting recreational facilities or public areas. However, there are no known cumulative projects that would include substantial changes to wind and shadow patterns in recreation areas

immediately adjacent to proposed project facilities. Further, as described above, the proposed project would not result in long-term adverse wind and shadow effects because all of the proposed project elements would be constructed underground or in areas not accessible or highly used as public areas, or adjacent to existing infrastructure facilities, and thus would not substantially alter wind and shadow patterns in these areas. There would be no cumulative effect associated with altered wind patterns and speed, or shadows as a result of implementation of the proposed project in conjunction with other cumulative projects.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
10. RECREATION – Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact RE-1: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities resulting in, substantial physical deterioration or degradation of the facilities. (Less than Significant)

The proposed project would not permanently affect existing recreation resources. The existing Central Reservoir facility in Golden Gate Park contains a water storage and pumping facility, wood waste storage and a composting area, within a fenced area that is accessed by a road (Overlook Drive) that is primarily used by maintenance vehicles, bicyclists and pedestrians. The fenced area may be slightly enlarged under the proposed project to expand the entrance to the facility, but would not affect Golden Gate Park recreation use areas. Project construction activities could require short-term closure of a trail located north of Lincoln Way/34th Avenue, between Lincoln Way and Middle Drive West, for approximately one week, and potential closure of narrow park roadways, such as Overlook Drive, during pipeline construction. However, these areas would be restored to conditions similar to pre-project conditions following pipeline construction (see Section A. 6.2, Construction). The proposed project would not include new residential or other uses that would generate substantial increased demand for parks or other recreational facilities. Any increase in demand for parks or other recreational facilities generated by the approximately four employees of the proposed treatment plant would be negligible and would be readily met by existing parks and recreational facilities in the project area, including Golden Gate Park, Lake Merced, Ocean Beach, and other local/neighborhood parks. As such, the proposed project would have a *less-than-significant impact* on the physical condition of existing parks and other recreational facilities.

Mitigation: None required.

Impact RE-2: The proposed project would not require the construction or expansion of recreational facilities that might have a significant effect on the environment. (No impact)

The proposed project does not include recreational facilities or residential use, and would not require the construction or expansion of recreational facilities. Therefore, the project would not result in the construction of recreational facilities that would themselves have a physical environmental impact. As a result, there would be *no impact*.

Mitigation: None required.

Impact C-RE: The proposed project would not have a significant cumulative impact on recreation. (Less than Significant)

The geographic scope for potential cumulative recreation impacts encompasses recreation land uses in the vicinity of project facilities. The area generally includes the Lake Merced, Sunset Boulevard medians, and neighborhood parks in the vicinity of the proposed projects. Cumulative impacts could occur if additional recreation facilities are required as a result of the cumulative projects or if increased use of existing facilities could result in the degradation or deterioration of existing facilities. The proposed project and currently planned or proposed cumulative projects would not result in direct physical deterioration of physical resources. The proposed project would not result in increases in housing or population and thus would not result in a substantial increase in the use of parks or other recreational facilities in the area; therefore the proposed project's contribution to cumulative recreational impacts is less than significant. Other currently planned or proposed cumulative projects do not include substantial increases in housing (with the exception of the Parkmerced project and the 800 Brotherhood Way project and), or other aspects that would result in substantial increases in the use of parks or other recreational facilities in the project vicinity. The increase in population and employment on the Parkmerced project site would result in an increased demand for and use of existing neighborhood parks; however the Parkmerced project would provide 68 acres of open space in a network of publically accessible neighborhood parks, athletic fields, public plazas, greenways, and an organic farm.⁴⁶ Additionally, future developments, such as the 800 Brotherhood Way project, would be subject to Planning Code open space requirements regarding provision of public and/or private open space. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would result in a *less-than-significant* cumulative impact on recreation.

Mitigation: None required.

⁴⁶ San Francisco Planning Department, Final Environmental Impact Report, Parkmerced Project, File No. 2008.0021E, State Clearinghouse No. 200905073. Available online at http://www.sf-planning.org/index.aspx?page=1828#2008_0021E. November 6, 2013.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. UTILITIES AND SERVICE SYSTEMS – Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact UT-1: Implementation of the proposed project would not result in construction or expansion of water or wastewater treatment facilities or stormwater drainage facilities, exceed wastewater requirements, or result in a determination by the wastewater treatment provider that there is insufficient capacity to serve the project. (Less than Significant)

Criteria “b” and “c” above, relates to the primary purpose of the proposed project, which is to construct a recycled water system that includes advanced wastewater treatment and that would add recycled water as a source of irrigation water supply in San Francisco. The primary purpose of this CEQA analysis is to evaluate the potential impacts of implementing the project; construction and operation would cause environmental effects as identified throughout this CEQA analysis. The project itself, as explained below, would have no measurable effect on the need for water or generate substantial wastewater.

Operation of recycled water treatment plant and Central Reservoir pump station facilities would likely include restrooms, sinks, and emergency eye wash/shower stations that require water supplies and generate wastewater, which would be provided by connections from the facilities to existing SFPUC water and wastewater pipelines. The quantity of water supply used and wastewater produced would be minimal, given that only four employees would operate these facilities and need those types of uses, and wastewater from restrooms and sinks would likely be of a quality that would not exceed the SFPUC’s wastewater treatment requirements, since it can be reasonably assumed that they were designed specifically for this type of waste. The recycled water treatment plant and Central Reservoir pump station would be located within developed areas and impervious surface areas would not be substantially increased as a result of the

project.⁴⁷ Therefore, additional stormwater runoff/drainage would not occur. Thus, the potential impacts related to water, wastewater, and stormwater treatment and/or capacity would be *less than significant*.

Mitigation: None required.

Impact UT-2: The proposed project would have sufficient water supply available, and would not require new or expanded water supply resources or entitlements. (Less than Significant)

As described in the Project Description, the proposed project is a component of the WSIP and would provide up to 2.0 mgd (annual average) or 5.0 mgd (peak-day demand) of recycled water to offset potable demand for nonpotable uses, which would augment potable water supply. Project construction would require a limited amount of water for dust suppression and soil washing. The temporary use of water during construction would be minimal, relative to the available water supply provided by the SFPUC. Project operation water supply needs would be minimal and restricted to eye wash/shower stations and sinks required for worker safety during operation; this water would be provided through the SFPUC regional water system. Toilets/urinal facilities at the recycled water treatment plant would be served using recycled water produced by the project. Operation of the proposed project is not expected to require more water supply than would be available through existing entitlements and resources, nor would it require new or expanded water supply resources or entitlements; therefore this potential impact would be *less than significant*.

Mitigation: None required.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. (Less than Significant)

The Altamont Landfill has a permitted peak maximum daily disposal of 11,150 tons per day and accepted 1.16 million tons in 2012.⁴⁸ The landfill has an estimated remaining capacity of approximately 46 million cubic yards or 74 percent of its permitted capacity. The estimated closure date of the landfill is January 2025.⁴⁹ In 2012, San Francisco generated approximately 454,500 tons of solid landfilled waste and sent approximately 375,000 tons to the Altamont Landfill, about 40 percent of the total volume of waste received at that facility.⁵⁰

In 1988, San Francisco contracted for the disposal of 15 million tons of solid waste at the Altamont Landfill. The City contract with the Altamont Landfill expires in 2015. Through August 1, 2009, the City had used

⁴⁷ Refer to Impact HY-2 below for a discussion regarding storm drainage system capacity and runoff.

⁴⁸ CalRecycle, "2012 Landfill Summary Tonnage Report". Available online at: <http://www.calrecycle.ca.gov/SWFacilities/Landfills/tonnages>; accessed November 8, 2013.

⁴⁹ CalRecycle, "Active Landfills Profile for Altamont Landfill and Resource Recovery (01-AA-0009)". Available online at: <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/>, accessed on May 28, 2013.

⁵⁰ Data includes only landfilled waste. Most of the City's remaining solid waste was sent to the Ox Mountain Landfill in San Mateo County. CalRecycle, Single-year Countywide Origin Detail, 2012, San Francisco. Available online at: <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=OriginJurisdictionIDs%3d438%26ReportYear%3d2012%26ReportName%3dReportEDRSJurisDisposalByFacility>. Reviewed November 27, 2013.

approximately 12.5 million tons of this contract capacity. The City projects that the remaining contract capacity will be reached no sooner than August 2014. In 2009, the City announced that it could award its landfill disposal contract to a Recology subsidiary for shipment of solid waste by truck and rail to the Recology Ostrom Road Landfill in Yuba County. This facility has an expected closure date of 2066 with a total design capacity of over 41 million cubic yards.⁵¹ The ultimate determination with respect to future landfill contracting will be made by the Board of Supervisors on the basis of solid waste planning efforts being undertaken by the City's Department of the Environment.

Although the proposed project could incrementally increase total waste generation from San Francisco, the proposed project would be subject to the CCSF's Mandatory Recycling and Composting Ordinance, which requires all San Francisco residents and commercial landlords to separate their refuse into recyclables, compostables, and trash, thereby minimizing solid waste disposal and maximizing recycling, which would result in a decreasing share of total waste that requires deposition into the landfill. As described in the Project Description, construction activities would result in an estimated 26,000 cubic yards of excess soils from the excavation activities for the recycled water treatment facility, Central Reservoir facilities, and pipelines.⁵² Excavated soil would be taken to an appropriate facility for recycling, reuse, or disposal. The proposed project would be subject to the CCSF's Construction and Demolition Debris Recovery Ordinance, which requires all construction and demolition debris to be transported to a registered facility that can divert a minimum of 65 percent of the material from landfills. The remaining 35 percent, a maximum of approximately 9,100 cubic yards, could be disposed of at the Altamont Landfill or another location to be determined. Given the existing and anticipated increase in solid waste recycling and the existing and potential future landfill capacities, the project would not result in either landfill exceeding its permitted capacity or non-compliance with federal, State, and local statutes and regulations related to solid waste.

As a result, the impact would be *less than significant*.

Mitigation: None required.

Impact UT-4: The construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste. (No Impact)

The San Francisco Construction and Demolition Ordinance (Ordinance No. 27-06) requires that a minimum of 65 percent of all construction and demolition debris be recycled and diverted from landfills. Furthermore, the proposed project would be required to comply with the City's Ordinance 100-09, the Mandatory Recycling and Composting Ordinance, which requires all San Francisco residents to separate their refuse into recyclables, compostables, and trash. Landfills are required to meet federal, state, and local solid waste

⁵¹ San Francisco is currently participating as a responsible agency in the environmental review process that Yuba County has begun for the Recology Ostrom Road Green Rail and Permit Amendment Project and to conduct CEQA review of San Francisco's proposal to enter into one or more new agreements with Recology. On March 28, 2013, Yuba County and San Francisco entered into a Cooperative Agreement to designate Yuba County as the lead agency for this project and to outline their cooperative efforts concerning environmental review.

⁵² Excavation calculation includes a 25 percent expansion factor.

regulations. Implementation of the proposed project would not impede the CCSF from meeting these requirements. As a result, there would be *no impact*.

Mitigation: None required.

Impact UT-5: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. (Less than Significant)

Construction activities for the proposed project could result in damage to or interference with existing water, sewer, storm drain, natural gas, electricity, and/or telecommunication lines. A majority of the project pipelines are located along transportation rights-of-way, which frequently serve as utility corridors. Although the exact location of underground utilities is not known at this time, utility lines of varying sizes are located along and across the pipeline routes. Excavation and trenching activities could result in accidental damage to utilities.

Although it can be reasonably assumed that project construction planning would include avoidance of overhead utility lines, the use of the telescopic crane to stage and lay pipeline segments could result in accidental damage to existing overhead utility lines. In addition, overhead utility poles and underground utility lines along the roadways could be damaged accidentally from the movement of large construction equipment and vehicles throughout the project area. Accidental rupture of or damage to these utility lines during project construction could temporarily disrupt utility services and, in the case of high-priority utilities, could result in significant safety hazards for construction workers and the public. The project does not propose to relocate utilities, but it is possible that relocation would be necessary once the locations and characteristics of any potentially conflicting utilities are confirmed. Consequently, installation of the project pipelines could require the temporary relocation of utility lines that are owned and operated by other utility companies. For the above reasons, potential impacts on existing utilities and utility services during project construction could be potentially significant. However, compliance with the following existing regulations and codes established to avoid or minimize the potential for disrupting utilities and utility services by identification and protection or temporary disconnection of utility lines, notification and coordination with emergency response providers, and reconnection of utilities, would reduce potential impacts to a *less-than-significant* level.

Prior to construction activities, the SFPUC or its contractor(s) would determine the locations of overhead and underground utility lines, such as natural gas, electricity, sewer, telephone, cable, fuel, water, and MUNI lines, that may be encountered during construction work. Pursuant to various provisions of California law, the SFPUC or its contractor(s) is required to notify USA North so that utility companies may be advised of the work and may field-mark or otherwise protect and warn the contractor of their existing utility lines. Information regarding the location of existing utilities shall be reviewed before construction activities begin. Utilities may be located by customary techniques such as geophysical methods and hand excavation.

The project would adhere to Article 2.4 (Excavation in the Public Right of Way) of the Public Works Code, which requires SFPUC to coordinate projects by entering project information into the SFDPW 5 year plan as

well as issuing a Notice of Intent (NOI) letter.⁵³ SFPUC and its contractors are bound to the CULCOP (Committee on Utility Liaison on Construction and other Projects), and the utility coordination process. SFPUC is also required, to the extent possible, to coordinate with other agencies to identify conflicts and opportunities for coordination of excavations. In 2013, the SFDPW, Bureau of Street Use & Mapping launched the new Envista Utility Coordination tool. Using this tool, all governmental and private utilities enter their projects into the five year plan. In addition, the new Envista Utility Coordination tool is used to issue and track (NOI) & Request for Information tickets as well as to issue and track Transmittal of Final Preliminary Plan (TFPP) tickets. All agencies have been informed to respond to the tickets through the Envista Utility Coordination tool.

Contract specifications generally include procedures for the excavation, support, and fill of areas around subsurface utilities, cables, and pipes. If the project encounters overhead electric and/or telephone lines during pipeline construction, the SFPUC or its contractor(s) would coordinate with SFMTA and appropriate telecommunication service providers to de-energize overhead electric lines as required by the federal and State OSHA regulations.

As required by Cal/OSHA (Section 1926.651), while any excavation is open, the SFPUC or its contractors would protect, support, or remove underground utilities as necessary to safeguard employees. If construction activities result in damage to high-priority utility lines, the SFPUC or its contractor(s) would immediately notify the San Francisco Fire Department to protect worker and public safety.

As part of contract specifications, the contractor(s) would be required to provide updates on excavations planned for the upcoming week and to specify when construction will occur near a high-priority⁵⁴ utility. At the beginning of each week when this work will take place, per Cal/OSHA, the contractor is required to hold safety tailgate meetings and to document contents of meeting. The SFPUC or its contractor(s) would promptly notify utility providers to reconnect any disconnected utility lines as soon as it is safe to do so.

As required by Cal/OSHA, the SFPUC or its contractor(s) would develop an emergency response plan prior to commencing construction activities. The emergency response plan would identify measures to be taken in response to a leak or explosion resulting from a utility rupture. In addition, the SFPUC or its contractor(s) would notify the appropriate emergency response department whenever damage to any utility results in a threat to public safety.

Based on project compliance with relevant provisions of the City's Public Works Code, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool, there would be a *less-than-significant impact* to existing utilities.

Mitigation: None required.

⁵³ The purpose of the 5 year plan and NOI letter is to provide information to all Governmental Agencies and private utility companies about the upcoming project. The 5 year plan and NOI letter also provides the project engineer or responsible party an opportunity to coordinate with other projects that may fall within the project's schedule and limits and identify potential conflicts that requires further coordination (potholing, adjustment of utilities, redesign of project's alignment, etc).

⁵⁴ Electric, water, and/or sewer lines.

Impact C-UT: The proposed project would not have a significant cumulative impact on utilities and service systems. (Less than Significant)

The geographic scope for potential cumulative utilities and service system impacts encompasses project sites in the vicinity of project facilities. The area generally includes the Sunset and Richmond Districts, Golden Gate Park, Lincoln Park Golf Course, and the Presidio. The proposed cumulative development in the project vicinity includes projects such as the ParkMerced development, which could result in increased water, wastewater, and stormwater generation and capacity. Such developments would be required to pay the applicable Wastewater Capacity Charge to fund the cost of expansion of the wastewater conveyance and treatment system, if necessary. All funds raised through the capacity charge are directly used to offset the cost of future wastewater capital improvement projects and repairs. As described above, the quantity of wastewater that would be produced would be minimal and would not likely be of a quality that could exceed the SFPUC's wastewater treatment requirements (since it can be reasonably assumed that they were designed specifically for this type of waste), and there would be no additional stormwater runoff/drainage.

Increased waste generation from the project and cumulative development would be partially offset by existing San Francisco ordinances and policies regarding waste reduction. The increasing rate of diversion by cumulative projects through recycling, composting, and other methods would result in a decreasing share of total waste that requires deposition in local landfills. They would not contribute to cumulative operational demands for water, wastewater treatment, or solid waste disposal.

Concurrent implementation of this project in conjunction with other cumulative projects could cause service disruptions for the same set of customers within a short timeframe. However, the proposed project's impacts related to damaging existing utilities and disrupting utility services, and relocation of utilities would be less than significant with compliance with relevant regulations. These requirements would apply to cumulative projects as well. Collectively, implementation of these regulatory requirements would ensure that existing utilities are accurately located and protected during construction and that emergency response procedures are in place to address the situation if an existing utility is damaged during construction. Therefore, potential cumulative impacts related to disruption of utility operations or accidental damage to existing utilities and relocation of regional or local utilities would not be cumulatively considerable.

Thus, cumulative impacts on utilities systems would be *less than significant*.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
12. PUBLIC SERVICES – Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, 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 public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project’s impacts on Recreation are analyzed in Section 10, above.

Impact PS-1: The proposed project would not increase demand for public services to an extent that would require new or physically altered facilities to be constructed or physically altered in order to maintain acceptable service ratios, response times, or other performance objectives. (No Impact)

The project site currently receives emergency services from the San Francisco Fire Department and San Francisco Police Department. The proposed project facilities would be serviced by several fire stations, including: Station 19 at 390 Buckingham Way, which is approximately 1.3 miles east of the recycled water treatment plant; Station 22 at 1290 16th Avenue at Irving Street, which is approximately 0.5 mile northwest of the Central Reservoir site; and Station 34 at 499 41st Avenue, which is approximately 0.3 mile south of irrigation pump station at Lincoln Park.⁵⁵ The proposed project is serviced by the Taraval and Richmond district stations; the Taraval station is located at 2345 24th Avenue, which is approximately 1.5 miles west of the recycled water treatment plant, and the Richmond station is located at 461 6th Avenue, which is approximately 1.2 miles northeast of the Central Reservoir site.⁵⁶ The San Francisco Unified School District provides school services to residents in the project vicinity.

As discussed in the Project Description, the proposed project would utilize and upgrade existing aboveground facilities as well as construct new facilities for recycled water treatment and conveyance purposes. No new structures would be habitable. The proposed new structures would be subject to and would comply with the regulations of the California Fire Code, which establishes requirements pertaining to fire protection systems, including the provision of state-mandated smoke alarms, fire extinguishers, appropriate building access, and emergency response notification systems.

Given that the proposed project is located in proximity to (and already served by) public services, the proposed new structures would be required to comply with fire codes, and the proposed project facilities would only incrementally increase service population in the area; as a result, there would be *no impact*.

Mitigation: None required.

⁵⁵ San Francisco Fire Department (SFFD), Available online at <http://www.sf-fire.org/>. Accessed October 14, 2013.

⁵⁶ San Francisco Police Department (SFPD). Available online at <http://sf-police.org/>. Accessed October 14, 2013.

Impact C-PS: The proposed project would not result in a significant cumulative impact on public services. (Less than Significant)

The geographic scope for potential cumulative public service impacts encompasses land uses in the vicinity of project facilities. The area generally includes the Sunset and Richmond Districts, Golden Gate Park, Lincoln Park Golf Course, and the Presidio. The proposed project could incrementally increase demand for public services (e.g., by adding service employees). Cumulative development in the project area would incrementally increase demand for public services, but not beyond levels anticipated and planned for by public service providers. Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable impact on public services (*less than significant*).

Mitigation: None required.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. BIOLOGICAL RESOURCES –					
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan because there are no adopted habitat conservation plans, natural community plans, or other approved plans that cover the project area; therefore, the Topic 13.(f) is not applicable to the project.

Approach to Analysis

The approach to analysis for this project is as follows: (1) review available biological resource surveys of the project area and relevant surrounding vicinity; (2) review special-status species lists derived from the California Natural Diversity Database (CNDDDB), the US Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), and the California Native Plant Society (CNPS); and, (3) to perform a field reconnaissance of the project area to record current site conditions.

Special-Status Species Lists

Special-status species lists were derived from the CNDDDB, USFWS, and CNPS for the San Francisco North, San Francisco South and seven surrounding 7.5-minute US Geological Survey quadrangles. The primary sources of data referenced for this study were as follows:

- CDFW, CNDDDB, data request for U.S. Geological Survey San Francisco North 7.5-minute topographic quadrangle and eight surrounding quads, information accessed January, 2014.
- CNPS, Online Inventory of Rare and Endangered Plants
- USFWS species list for San Francisco North 7.5-minute US Geological Survey quadrangle

The findings of these database searches and species lists were used to compile the list of special-status species that may occur in the project area (Appendix 1).

Reconnaissance Survey

Biological resources within the project area were verified by an ESA biologist during a field reconnaissance conducted on February 7, 2014. Prior to the reconnaissance survey, databases were reviewed for the project site and surrounding area. The field reconnaissance consisted of a pedestrian survey within the project facility site's boundary and observations of the adjacent environments. The field surveys were focused on identifying habitat for special-status plant and wildlife species. General habitat conditions were noted and incidental species observations were recorded. The findings of the reconnaissance survey, the literature review, and the database queries were used to compile the list of special-status species that may occur in the project area (Appendix 1) and to characterize the local project setting, described below.

Local Project Setting

The proposed project is located in western San Francisco and spans from the Oceanside WPCP to the Golden Gate Park, and then to the edge of the Presidio and the Lincoln Golf Course. The Oceanside WPCP is bordered on the north by the California Army National Guard, and is within 0.25 mile of Lake Merced to the east, Fort Funston to the south, and the San Francisco Zoo to the north. Lake Merced consists of four interconnected freshwater lakes: North Lake, South Lake, East Lake, and Impound Lake. They offer habitat

for many species, including migratory birds and aquatic species. Fort Funston consists of coastal dunes and beach, which offers habitat for special-status species including bank swallow (*Riparia riparia*) and western snowy plover (*Charadrius alexandrinus nivosus*). Golden Gate Park is a heavily wooded and otherwise vegetated open space urban park, although major intersections, ponds and meadows are maintained and landscaped. It provides habitat for a variety of common avian species as well as raptors.

Observed Wildlife Habitat in Project Area

An ESA biologist conducted a reconnaissance survey of the aboveground project sites (San Francisco Westside recycled water treatment plant and the Central Pump Station), as well as nearby North and South Lake Merced and pipeline route areas on February 7, 2014. The recycled water treatment plant site provides limited wildlife habitat in the vegetated area between the Oceanside WPCP and the California Air National Guard site, located just north of the WPCP, and surrounding the WPCP on the east and south sides. These areas consist mainly of planted pines (*Pinus* sp.), dense stands of acacia (*Acacia melanoxylon*), ceanothus (*Ceanothus* sp.), hairy rockrose (*Cistus incanus*), and also non-native species including iceplant (*Carpobrotus edulis*), English ivy (*Hedera helix*), and sprouts of Himalayan blackberry (*Rubus armeniacus*). This habitat would be most suitable for a variety of songbird species and potentially some bat species. The following common avian species were observed on site and in the vicinity of the Oceanside WPCP: killdeer (*Charadrius vociferus*), gulls (*Larus* sp.), goldfinch (*Spinus* sp.), Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), dark-eyed junco (*Junco hyemalis*), spotted towhee (*Pipilo maculatus*), and Townsend's warbler (*Setophaga townsendi*).

Although surrounded on all sides by major roadways and developed areas (including parks and golf courses), Lake Merced provides habitat for a wider variety of wildlife species than surrounding areas. Habitat at the Central Pump Station to the north in Golden Gate Park provides a mix of shrubs, blackberry (*Rubus armeniacus*), stands of eucalyptus (*Eucalyptus* spp.) which border the staging area, and a few pines (*Pinus* spp.). Vegetation on the site is generally disturbed, with English ivy (*Hedera helix*) and fennel (*Foeniculum vulgare*) surrounding the staging area. The proximity of the eucalyptus and pine trees to nearby fields, open areas of Elk Glen Lake and Lloyd Lake, and surrounding open woodlands, provides suitable nesting and foraging habitat for raptors such as Cooper's hawk, red-shouldered hawk, red-tailed hawk, merlin (*Falco columbarius*), and American kestrel (*Falco sparverius*). All of these raptor species utilize field edges, open areas such as parks and fields, and suburban settings. The following common wildlife species were observed on site and at the surrounding ponds in the project vicinity: American crow (*Corvus brachyrhynchos*), gulls, chestnut-backed chickadee (*Poecile rufescens*), dark-eyed junco (*Junco hyemali*), and great egret (*Ardea alba*).

Although the existing buildings of the Oceanside WPCP are not abandoned, it is possible that bat species less sensitive to human disturbance could use building awnings, eaves, and openings into building space for roosting, if activity in and around the buildings and structures is minimal. Bats might also roost in some of the dense stands of willow and pines located adjacent to the WPCP. Habitat around the Central Pump Station and Lake Merced might be ideal for bat species that prefer open areas, water, and habitat edges for foraging. These project areas also provide plentiful tree and shrub foliage for roosting. Common bat species that might occur at or nearby Oceanside WPCPC, Lake Merced, and the Central Pump Station include Yuma myotis (*myotis yumanensis*) and big brown bat (*Eptesicus fuscus*). Special-status bat species that may

occur at Oceanside WPCP, Lake Merced, and the Central Pump Station include the hoary bat (*Lasiurus cinereus*) and Western red bat (*Lasiurus blossevillii*).

Wetlands and Other Waters of the United States

Two definitions of “wetland” are considered for purposes of this project, one administered by the U.S. Army Corps (Corps) under the federal Clean Water Act and the other administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB) under the Porter-Cologne Water Quality Control Act and the CCC under the California Coastal Act. Both definitions are presented below.

Federal Wetland Definition. Wetlands are a subset of waters of the United States and receive protection under Section 404 of the Clean Water Act. The term “waters of the United States,”⁵⁷ as defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]), includes:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b)] as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.)
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States under the definition.
5. Tributaries of waters identified in paragraphs (1) through (4).
6. Territorial seas.
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the

⁵⁷ Based on the Supreme Court ruling in *Solid Waste Agency for Northern Cook County v. U.S. Army Corps of Engineers* related to federal jurisdiction over isolated waters (January 9, 2001), non-navigable, isolated, intrastate waters are no longer defined as waters of the United States based solely on their use by migratory birds. Jurisdiction over non-navigable, isolated, intrastate waters may be exercised if their use, degradation, or destruction could affect other waters of the United States or interstate or foreign commerce. According to this ruling, jurisdiction over such other waters must be analyzed on a case-by-case basis, as should impoundments of waters, tributaries of waters, and wetlands adjacent to waters. The Supreme Court’s recent decisions (e.g., *Rapanos* and *Carabel*) have yet to be interpreted in U.S. Army Corps of Engineers regulations or definitions.

purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the U.S. Environmental Protection Agency (USEPA).

California Wetland Definition. California agencies have adopted the Cowardin et al. (1979) classification system to define wetlands. According to this classification system, wetlands must have one or more of the following three attributes: (1) at least periodically, the land predominantly supports hydrophytes;⁵⁸ (2) the substrate is predominantly undrained hydric soil; or (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al., 1979).

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. Jurisdictional wetlands and other Waters of the United States and Waters of the State occur adjacent to the project site.

Regulation of Activities in Wetlands. The regulations and policies of various federal agencies, such as the Corps, USEPA, USFWS, and National Marine Fisheries Service (NMFS), mandate that filling wetlands be avoided unless it can be demonstrated that no practicable alternatives exist. The Corps has primary federal responsibility for administering regulations that concern waters and wetlands. In this regard, the Corps acts under two statutory authorities: the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in “navigable waters,” and the Clean Water Act (Section 404), which governs the fill of waters of the United States, including wetlands. The Corps requires that a permit be obtained if a project proposes to place fill in navigable waters and/or to alter waters of the United States below the ordinary high-water mark in non-tidal waters. The USEPA, USFWS, NMFS, and several other agencies may comment on Corps permit applications. The USEPA provides the primary criteria for evaluating the biological impacts of Corps permit actions in wetlands.

The State’s authority to regulate activities in wetlands and waters at the project site resides primarily with the RWQCB, which regulates fill in and discharges to Waters of the United States and Waters of the State of California, including activities in wetlands, under Section 401 of the Clean Water Act, and the Porter-Cologne Water Quality Control Act. The CDFW provides comment on Corps permit actions under the Fish and Wildlife Coordination Act. Moreover, under Sections 1600–1616 of the California Fish and Game Code, the CDFW regulates activities that would substantially divert, obstruct the natural flow of, or change rivers, streams, and lakes. The jurisdictional limits of the CDFW are defined in Section 1602 of the California Fish and Game Code as the bed, channel, or bank of any river, stream, or lake. The CDFW regulates activities that would result in the deposit or disposal of debris, waste, or other materials into any river, stream, or lake, and requires preparation of a streambed alteration agreement for activities that are proposed within or near a river, stream, or lake.

Within the California Coastal Zone, the CCC also has authority to regulate development under the California Coastal Act. The coastal zone generally extends three miles seaward and about 1,000 yards

⁵⁸ The USFWS has developed the following definition for hydrophytic vegetation: “plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (Cowardin et al., 1979).

inland from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards. In order to carry out the policies of the Coastal Act, each of the 73 cities and counties in the coastal zone is required to prepare a local coastal program (LCP) for the portion of its jurisdiction within the coastal zone and to submit the program to the Commission for certification. The CCC manages protection of biological resources through a permitting process for all projects in the coastal zone. Once the CCC certifies a LCP, the local government gains authority to issue most coastal development permits (CDP). The CCC retains permit authority over tidelands, submerged lands and public trust lands. Only the CCC can grant a coastal development permit for development in areas of its retained jurisdiction. San Francisco's LCP is discussed further below as the *Western Shoreline Plan* in the Local Plans and Policies subsection.

Local Plans and Policies

Western Shoreline Area Plan

The Western Shoreline Area Plan of the San Francisco General Plan is the CCSF's certified Local Coastal Program (LCP) and sets forth policies and objectives governing development in the coastal zone within the City and County of San Francisco.⁵⁹ Most coastal development permits for projects in San Francisco's coastal zone are issued by the San Francisco Planning Commission, in accordance with the provisions of Section 330 et seq. of the San Francisco Planning Code. A portion of the project, including the recycled water treatment plant site and a portion of the pipeline within Skyline Boulevard, is within the coastal zone (see Figure 2). Vegetation on the berm adjacent to the WPCP is not considered an Environmentally Sensitive Habitat Area (ESHA) as it does not meet any of the following criteria according to the CCC definition of an ESHA as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities".⁶⁰ Portions of the pipeline along Skyline Boulevard and the Harding Road Staging Area adjacent to Lake Merced, are within 100 feet of Lake Merced, an area within which coastal development permits are appealable to the CCC. A small area of the project, along Skyline Boulevard, is within an area of retained CCC jurisdiction.

San Francisco Recreation and Park Department Significant Natural Resources Areas Management Plan

The SFRPD 1995 Significant Natural Resource Areas Management Plan (SNRAMP) applies to designated significant natural areas in the CCSF. The purpose of the SNRAMP is to protect, restore, and enhance these significant natural areas within the CCSF. General policies and management actions presented in the approved 1995 plan relevant to biological resources at Lake Merced include the following:

⁵⁹ City of San Francisco General Plan, Western Shoreline Area Plan, 2014.

⁶⁰ California Coastal Commission, 2014. California Coastal Act, Section 30107.5. Definition of Environmentally sensitive area.

III. General Policies and Management Actions

A. Vegetation

- a. Maintain and promote indigenous plant species; propagate native plants using seed collected from the specific site to avoid alteration of unique genetic strains of native plant species
- b. Control or remove invasive species; remove exotic plants that adversely affect indigenous plant growth
- c. Enhance riparian areas
- d. Reforest or replant areas where appropriate to maintain diversity of indigenous plant communities
- e. Preserve habitat that supports wildlife

B. Water Resources

- a. Maintain or improve water quality of streams and ponds
- b. Protect riparian zones from erosion and sedimentation
- c. Maintain drainage and erosion prevention devices along roads and service trails
- d. Control drainage and runoff from roads
- e. Establish and maintain tule encroachment zone around lakes
- f. Use proper controls when using aquatic herbicide

San Francisco Public Works Code

The CCSF's Urban Forestry Ordinance (Article 16 of the Public Works Code) was enacted to ensure the protection of several categories of trees: street trees, significant trees, and landmark trees in areas under SFDPW jurisdiction. Trees adjacent to proposed pipeline routes would qualify as street trees and significant trees; however, there are no landmark trees in the project vicinity. Section 808 of the article pertains to protection of such trees:

- (a) **Injury to or Destruction of Trees Prohibited.** It shall be unlawful for any person to intentionally, maliciously or through gross negligence injure or destroy a street tree, any tree on City property, a significant tree, or a landmark tree. Removal of a tree under City order or removal in accordance with a permit issued pursuant to Section 806, 810, or 810A of this Article is exempt from this prohibition.
- (b) **Injury to or Destruction of Landscape Materials Prohibited.** It shall be unlawful for any person to intentionally, maliciously or through gross negligence injure or destroy any landscape material in any street median, center strip, or other landscaped portion of a public right-of-way under the City's jurisdiction, except as authorized by the Department.
- (c) **Construction Work: Protection of Trees Required.** It shall be unlawful for any person to engage in any construction work on private or public property without first taking steps to protect street trees, significant trees, and landmark trees from damage, including damage caused by soil compaction or contamination, excavation, or placement of concrete or other pavement or foundation material. If excavation, construction, or street work is planned within the dripline of a significant tree, a landmark tree or a tree on any street or other publicly owned property said

tree(s) shall be adequately protected. If any construction work results in the injury or damage to such trees, the responsible party(ies) may be subject to the penalties set forth in Section 811 of this Article.

Golden Gate Park Master Plan

The *Golden Gate Park Master Plan* provides a framework and guidelines to ensure responsible and enlightened stewardship of the park.⁶¹ The main goal of the plan is to balance public recreation in the park with the preservation of the park's historical significance. Objectives and policies in the plan aim to preserve the park's contribution to the diversity of cultural, natural, and recreational resources available to park visitors from San Francisco, the Bay Area, and elsewhere. Policies relevant to biological resources are described include:

Objective II, Policy B – Preserve and Renew the Park's Forests

2. The forest management program should focus on:
 - b. Removal of hazardous, diseased and dying trees; replacement with appropriate tree species. (Some dead/dying trees should be retained for wildlife habitat ecological purposes.)
 - g. Control of invasive plant species.

The *Golden Gate Park Master Plan*⁶² proposes the following recommendations for preserving Golden Gate Park's forests:

- Structurally weak trees that pose a significant risk to the public and to property need to be identified, monitored, and removed as part of an ongoing safety program.
- Individual large trees should be replaced in kind with similar species. Specimen sized trees should be used where judged to be feasible.

Objective II, Policy C – Wildlife and Habitat

1. Manage, protect, and enhance the park's landscape for wildlife habitat and other natural values. Managing the landscape for these values should include preserving and enhancing food sources, nesting sites, and roosting sites, thinning and providing openings in the forest canopy, and maintaining understory vegetation.
2. Continue diversification of tree species within the park by planting California native species such as oak, buckeye, madrone, bay laurel, and toyon, where appropriate.
3. Preserve selected dead and aging trees for habitat value.
5. Designate areas within the park that have special resources or habitat values as natural resource areas. Natural resource areas should be managed to preserve and enhance the natural resource values. Control park uses in and near natural resource areas to preserve natural values.

⁶¹ San Francisco Recreation and Park Department (SFRPD), *Golden Gate Park Master Plan*. Prepared by Royston Hanamoto Alley & Abey. Adopted October 1998.

⁶² Ibid.

San Francisco Recreation and Parks Department Park Code

Section 4.06 – Removal of Trees, Wood, etc. The SFRPD has jurisdiction over all trees in Golden Gate Park. Thus, the SFRPD must grant permission for any trimming or removal of trees in these areas.

Special-Status Species

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects the fish and wildlife species and their habitats that the USFWS or NMFS has identified as threatened or endangered. The term endangered refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range. The term threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code, Section 2070). The CDFW also maintains a list of candidate species," which are those formally under review for addition to either the list of endangered species or the list of threatened species. In addition, the CDFW maintains a list of "species of special concern," which serves as a watch list.

The CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. "Take" in the context of the CESA means to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts when a person is attempting to take individuals of a listed species. The take prohibitions also apply to candidates for listing under the CESA. However, Section 2081 of the CESA allows the CDFW to authorize exceptions to the State's take prohibition for educational, scientific, or management purposes.

In accordance with the requirements of the CESA, an agency reviewing a project within its jurisdiction must determine if any State-listed endangered or threatened species could be present in the project area. The agency also must determine if the project could have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any project that could affect a candidate species.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (CNPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The CNPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. The CESA expanded on the original CNPPA and enhanced legal protection for plants. The CESA established threatened and endangered species categories and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

Special-Status Natural Communities

The CDFW's Natural Heritage Division identifies special-status natural communities, which are those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The CNDDDB tracks 135 such natural communities in the same way that it tracks occurrences of special-status species: Information is maintained on each site for the natural community's location, extent, habitat quality, level of disturbance, and current protection measures. The CDFW is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of the potential impacts of a project on biological resources of statewide or regional significance.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA; United States Code, Title 16, Section 703, Supplement I, 1989) prohibits taking, killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. The ESA defines take as "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species." Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction). Therefore, for projects that would not result in the direct mortality of birds, the MBTA is generally also interpreted in CEQA analyses as protecting active nests of all species of birds that are on the List of Migratory Birds, published in the *Federal Register* in 1995. With respect to nesting birds, while the MBTA itself does not provide specific take avoidance measures, the USFWS and CDFW over time have developed a set of measures sufficient to demonstrate take avoidance. Since these measures are typically required as permitting conditions by these agencies, they are often incorporated as mitigation measures for projects during the environmental review process. The exception is if the project as proposed were to incorporate and be consistent with these protections. These requirements include avoiding tree removal during nesting season, preconstruction nesting bird surveys and establishment of appropriate buffers from construction if active nests are found.

California Fish and Game Code

Birds of prey are protected in California under the State Fish and Game Code, Section 3503.5 (1992). This code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW. Typically CDFW recommends a 250-foot exclusion zone (buffer) around active passerine nests, and a 500-foot exclusion zone around active raptor nests. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Project impacts to these species would not be considered significant unless they are known or have a high potential to nest in the project area or to rely on it for primary foraging. Section 3503 of the California State

Fish and Game Code protects the nests or eggs of any bird, and also the rookeries⁶³ of colonial nesting birds such as herons and egrets. All bat species are protected under the California Fish and Game Code Section 4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as otherwise provided in the code or in accordance with regulations adopted by the commission.

Special-Status Species in the Project Area

A list of special-status plant and animal species that could occur in the vicinity of the project area was compiled based on data described above in Approach to Analysis. Appendix 1 lists special-status plants and animals, their preferred habitats, and their potential to occur in the project area. Conclusions regarding habitat suitability and species occurrence are based on the results described in previous studies, the reconnaissance survey conducted by ESA on February 7, 2014, and the analysis of existing literature and database queries described above.

It was then determined whether there is a low, moderate, or high potential for species occurrence at the project facility sites and in the project vicinity based on previous special-status species record locations and current site conditions. Only species with a low, moderate, or high potential for occurrence in the project area are included in Table A1-1 (see Appendix 1) and considered under this analysis.

The CNDDDB documents 60 special-status wildlife species in the nine US Geological Survey (USGS) 7.5-minute quadrangles including and surrounding the project area⁶⁴ which were considered for the potential to occur on or near the project facility sites. Many species were eliminated from further consideration because the project site is outside of their known range and does not provide suitable habitat. The remaining species have a moderate or high potential to occur in the project area, and include special-status birds and bats.

CNDDDB identifies a variety of colonial nesting birds; which are black-crowned night heron (*Nycticorax nycticorax*), double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), and snowy egret (*Egretta thula*). Although the facility sites themselves do not provide suitable habitat for these species, nearby Lake Merced provides nesting habitat and double-crested cormorant, great egret, and great blue heron are known to breed here. Black-crowned night heron may breed around the lake. CNDDDB also identifies several raptors which are Cooper's hawk (*Accipiter cooperi*), white-tailed kite (*Elanus leucurus*), merlin (*Falco columbarius*), and northern harrier (*Circus cyaneus*). Although not known to occur at the facility sites, these raptors have a moderate potential to occur in the project area. Many of the large eucalyptus, cypress, and pine trees around Lake Merced and in Golden Gate Park could support nests for Cooper's hawk and potentially for merlin if old crow, raven, and hawk nests are available for them to reuse in these trees. Additionally, freshwater wetlands of Lake Merced may provide nesting habitat for northern harrier. Other identified species such as white-tailed kite may be found at the freshwater wetlands of Lake Merced and wooded areas of Golden Gate Park. Other special-status raptor species that are likely to occur in the project area are red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*),

⁶³ Rookery is defined as a breeding colony of birds, typically seen as a collection of nests high in a group of trees.

⁶⁴ California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDDB), 2014. Data request for U.S. Geological Survey San Francisco North 7.5-minute topographic quadrangle and eight surrounding quads. Accessed January, 2014.

American kestrel (*Falco sparverius*), and great horned owl (*Bubo virginianus*). Additionally, CNDDDB identified species that are known to breed in the project area include saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*) and yellow-headed blackbird (*Xanthocephalus xanthocephalus*) which nest in freshwater marshes of Lake Merced (*Geothlypis trichas sinuosa*), and bank swallow (*Riparia riparia*) which nest in the sand dunes at Fort Funston.

Of the 60 special-status wildlife species identified by the CNDDDB, there are a few special-status bat species that could occur at the facility sites and in the project area, which are hoary bat (*Lasiurus cinereus*), western red bat (*Lasiurus blossevillii*), and Yuma myotis (*Myotis yumanensis*). Hoary bat has a Western Bat Working Group rating of medium priority, meaning that more information is needed about the species in order to fully understand and assess its status. Western red bat is a state species of special concern, and Yuma myotis is listed on the state Special Animal List. Hoary bat, western red bat, and Yuma myotis, all have a moderate potential to occur in the project area; Lake Merced and Golden Gate Park provide open wooded habitat, edge habitat, and sources of water for foraging as well as large trees with dense foliage for roosting. All three species have a moderate potential to occur at the Central Pump Station, and western red bat and Yuma myotis also have a moderate potential to occur at the WPCP. Both the pallid bat and Townsend's big-eared bat are extremely sensitive to disturbance, and therefore are not likely to be present in the project area given the frequent vehicle traffic at the Central Pump Station and along major roadways adjacent to Lake Merced, and given the long-term operational activity at the Oceanside WPCP.

There are no CNDDDB identified special-status amphibian, invertebrate, fish, or plant species with a moderate or high potential to occur at the project facility sites because there is no suitable habitat. Furthermore, a number of the special-status plant species have been extirpated from San Francisco. Although California red-legged frog (*Rana draytonii*) habitat does not exist at the facility sites, potential aquatic habitat exists at the small ponds in Golden Gate Park. However, the ponds in Golden Gate Park lack emergent aquatic vegetation required for egg laying, and therefore these areas are not likely to support breeding red-legged frogs. In contrast, Western pond turtle (*Emys marmorata*) is known to occur at Lake Merced,⁶⁵ and there is plentiful basking habitat found in riprap, matted bulrush, abandoned piers, and wooden debris; however upland breeding habitat is limited. Potentially suitable aquatic habitat is also located in Golden Gate Park approximately 400 feet from the Central Reservoir facility.

Impact BI-1: The project would potentially have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. (Less than Significant with Mitigation)

Nesting Birds. Existing trees, in particular those located between the existing Oceanside WPCP facility and the California Army National Guard property, which could be removed in order to expand the plant footprint, and in the vicinity of the Central Pump Station, could support native nesting birds, which are

⁶⁵ San Francisco Recreation and Park Department (SFRPD), *Significant Natural Resource Areas Management Plan*, February 2006; San Francisco Planning Department, *Significant Natural Resource Areas Management Plan Draft Environmental Impact Report*, Planning Department Case No. 2005.1912E, State Clearinghouse No. 2009042102, August 2011.

protected under California Fish and Game Code Sections 3503 and the MBTA. Removal and/or relocation of trees with active nests, and construction noise and activity adjacent to such trees during the bird nesting season (March 1 through August 31) could result in nest abandonment, destruction, injury or mortality of nestlings, and disruption of reproductive behavior during the breeding season. Specifically, initial vegetation clearing activity associated with preparation of the Oceanside WPCP and Central Pump Station project areas for construction of additional facilities, could result in the mortality of individual birds, including special-status birds such as red-shouldered hawk, red-tailed hawk, Cooper's hawk, or American kestrel, and/or destruction of nests and nestlings, if nests are present and occupied. This would be a significant impact because it could directly harm individuals and could threaten reproductive success. Implementation of **Mitigation Measures BI-1a, Nesting Bird Protection Measures** would reduce potential impacts on special-status birds to a *less-than-significant* level by requiring surveys of the project site to identify nests and protection of nesting birds, should any be present.

Mitigation Measure M-BI-1a: Nesting Bird Protection Measures.

Nesting birds and their nests shall be protected during construction by use of the following:

- Conducting vegetation and tree removal and construction activities outside the bird nesting season (February 1 to August 30), to the extent feasible.
- If construction occurs during the bird nesting season, a qualified wildlife biologist would conduct preconstruction surveys within seven days of the start of construction or after any construction breaks of 14 days or more to identify active nests. A nest is defined to be active for raptors if there is a pair of raptors displaying reproductive behavior (i.e., courting) at the nest and/or if the nest contains eggs or chicks. Surveys shall be performed for the project site and suitable habitat within 250 feet of the project site in order to locate any active passerine nests and within 500 feet of the project site to the extent access is granted by other property owners to locate any active raptor (birds of prey) nests or double-crested cormorant or heron rookeries.
- If active nests are located during the preconstruction bird nesting survey, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nest and the following measures shall be implemented based on their determination:
 - If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply.
 - If construction may affect the active nest, the biologist shall establish a no disturbance buffer. The biologist shall determine the appropriate buffer taking into account the species involved, the presence of any obstruction, such as a building, is within line-of-sight between the nest and construction, and the level of project and ambient activity (i.e. adjacent to a road or active trail). No disturbance buffers for passerines typically vary from 25 feet and greater and for raptors from 300 feet and greater. For bird species that are federally and/or state-listed sensitive species (i.e., threatened, endangered, fully protected, species of special concern), an SFPUC representative, supported by the wildlife biologist, shall consult with the USFWS and/or CDFW regarding nest buffers.
- Removing inactive passerine nests may occur at any time. Inactive raptor nests shall not be removed unless approved by the USFWS and/or CDFW.

- Removing or relocating active nests shall be coordinated by the SFPUC representative with the USFWS/and or CDFW, as appropriate, given the nests that are found on the site.
- Any birds that begin nesting within the project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases.

Roosting Bats. Existing trees in the vicinity of the recycled water treatment plant and Central Pump Station facility sites, could support native roosting bats, which are protected under California Fish and Game Code Section 4150. Removal and/or relocation of trees with active roosts, and construction activities adjacent to such trees during the bat roosting season could result in roost destruction, injury or mortality of pups, and general disturbance during breeding season.

Although no bats or evidence of their presence was observed at the Oceanside WPCP and Central Pump Station or in the immediate vicinity, including Lake Merced, this does not rule out the possibility that bats occupy the project area. Initial vegetation clearing activity associated with project development could kill and/or injure roosting and breeding special-status bats if roost sites occur in vegetation that would be removed. Direct impacts include the mortality of individual bats and/or destruction of maternal roosts and pups. These impacts would be significant because they could kill or injure adult and juvenile bats. However, implementation of **Mitigation Measures M-BI-1b: Pre-Construction Bat Surveys** would reduce potential impacts on roosting bats to a *less-than-significant* level by requiring surveys of the project site to no more than two weeks in advance of tree removal.

Mitigation Measure M-BI-1b: Avoidance and Minimization Measures for Special-Status Bats.

In coordination with the SFPUC, a qualified wildlife biologist shall conduct preconstruction special-status bat surveys before trees and structures that are suitable for bat roosting (*i.e.*, excluding temporary trailers, retaining walls, etc.) are removed. If active day or night roosts are found, the wildlife biologist shall take actions to make such roosts unsuitable habitat before trees and structures are removed. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. Bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary.

Reptiles and Amphibians. Western pond turtle is known to occur in Lake Merced with suitable habitat present in South Lake Merced.⁶⁶ California red-legged frog was historically present at Lake Merced, but now is believed to be extirpated from the area.⁶⁷ Suitable habitat for both species occurs in the vicinity of the Central Reservoir site in Golden Gate Park.

Although project construction would not occur within or adjacent to aquatic habitat known to support these two species, pipeline work would occur along Route 35/Skyline Boulevard, which is less than 1/4 mile from Lake Merced. The proposed Harding Road staging area also is located adjacent to Lake Merced. If western pond turtles are present in upland habitat of North and South Lake Merced nearby construction-related activity, they could be injured or killed. Construction-related activity would also occur within Golden Gate

⁶⁶ San Francisco Public Utilities Commission (SFPUC), *Lake Merced Watershed Report*, January 2011.

⁶⁷ Jones and Stokes, *Probable Absence of California Red-Legged Frog from Lake Merced*, Oakland, CA, 2007.

Park at the Central Pump Station and along a pipeline route that passes in proximity to Metson Lake and Lloyd Lake. If red-legged frogs or western pond turtles are present in upland habitat near these ponds or migrate to other areas of upland habitat close to construction activity around the Central Pump Station, they could be injured or killed (although the potential is considered low, as no red-legged frogs have been identified in Golden Gate park for nine years). The potential for the project to result in injury or mortality to red-legged frog or western pond turtle during project construction and implementation is considered a significant impact. However, this impact would be reduced to a *less-than-significant* level with implementation of **Mitigation Measures M-BI-1c: Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle**. This would require pre-construction surveys be conducted by a qualified biologist no more than 14 days prior to any construction related activity.

Mitigation Measure M-BI-1c: Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle.

During construction on Route 35/Skyline Boulevard, at the Central Pump Station well facility site, on the pipeline route within Golden Park near aquatic habitat, and during use of the Harding Road staging area, the SFPUC shall ensure a biological monitor is present during installation of exclusion fencing and initial vegetation clearing and/or grading, and shall implement the following measures:

- Within one week before work at these sites begins (including demolition and vegetation removal), a qualified biologist shall supervise the installation of exclusion fencing along the boundaries of the work area, as deemed necessary by the biologist, to prevent California red-legged frogs and western pond turtles from entering the work area. The construction contractor shall install suitable fencing with a minimum height of 3 feet above ground surface with an additional 4-6 inches of fence material buried such that species cannot crawl under the fence.
- A qualified biologist shall conduct environmental awareness training in person or via video for all construction workers prior to construction workers beginning their work efforts on the project. The training shall include information on species identification, avoidance measures to be implemented by the project, and the regulatory requirements and penalties for noncompliance. If necessary, the content shall vary according to specific construction areas (e.g., workers on city streets will receive training on nesting birds but not on California red-legged frog identification).

A qualified biologist shall survey the project area within 48 hours before the onset of initial ground-disturbing activities and shall be present during initial vegetation clearing and ground-disturbing activities. The biological monitor shall monitor the exclusion fencing weekly to confirm proper maintenance and inspect for frogs and turtles. If California red-legged frogs or western pond turtles are found, the SFPUC shall halt construction in the vicinity that poses a threat to the individual as determined by the qualified biologist. If possible, the individual shall be allowed to move out of the project area of its own volition (i.e., if it is near the exclusion fence that can be temporarily removed to let it pass). For western pond turtles, a qualified biologist shall relocate turtles to the nearest suitable habitat. For California red-legged frog, a SFPUC representative shall contact the USFWS and/or CDFW for instructions on how to proceed. Construction shall resume after the individual is out of harm's way.

- During project activities, excavations deeper than 6 inches shall be covered overnight or an escape ramp of earth or a wooden plank at a 3:1 rise shall be installed; openings such as pipes where California red legged frogs or western pond turtles might seek refuge shall be covered

when not in use; and all trash that may attract predators or hide California red-legged frogs or western pond turtles shall be properly contained on a daily basis, removed from the worksite, and disposed of regularly. Following construction, the construction contractor shall remove all trash and construction debris from work areas.

Impact BI-2: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. (Less than Significant)

The project does not include activities or project facilities in the vicinity of riparian habitat (specifically, willow riparian scrub) or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Because the project would avoid these sensitive areas, this impact would be *less than significant*.

Mitigation: None required.

Impact BI-3: The project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act. (Less than Significant)

Lake Merced is considered jurisdictional water of the U.S. and of the state and is subject to the regulatory authority of the Corps, CDFW, the RWQCB, and the CCC. Although Lake Merced would not be directly affected by construction of the proposed project, one of the three proposed staging areas is located on Harding Road, which is adjacent to the South Lake. Transportation of project materials to and from the various staging areas could generate dust and other construction materials and fluids that may enter the South Lake, North Lake, and wetlands associated with these aquatic features. However, as discussed in Topic 15, Hydrology and Water Quality, the SFPUC would require the construction contractor to develop and implement an Erosion and Sediment Control Plan in accordance with Article 4.1 of the Public Works Code. During construction, the SFPUC could also conduct routine inspections of all Best Management Practices (BMPs) to document compliance and identify deficiencies to be corrected. Implementation of construction site stormwater requirements developed to comply with Article 4.1 of the Public Works Code would therefore ensure that water quality impacts related to stormwater runoff during construction would be *less than significant*.

Mitigation: None required.

Impact BI-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant)

Several known rookeries of double crested cormorant and great blue heron exist in the large eucalyptus trees located along the shores of North and South Lake Merced. Additionally, red-shouldered and red-

tailed hawks nest in large trees (eucalyptus, Monterey cypress, and pines) around all of the lakes.⁶⁸ Although project activities would not affect rookery trees in particular, project-related activities could result in disturbance to the general Lake Merced area and thus may adversely impact rookeries. However, most historical rookeries have existed in this highly urbanized and disturbed area, and thus project construction is not expected to substantially affect rookeries and the potential impacts are considered *less than significant*.

The project facility sites and staging areas are largely developed and are surrounded on all sides by City streets and major roadways, and are generally situated within a developed, urban environment that doesn't provide substantial natural habitat or movement corridors for any native or migratory wildlife species. Furthermore, the majority of the proposed pipeline work would take place within city streets and would not occur in or immediately adjacent to aquatic/riparian habitat of Lake Merced and the small ponds within the Golden Gate Park, and therefore impacts to rookeries and fish species mentioned above would be *less than significant*.

Mitigation: None required.

Impact BI-5: The project would not conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (No Impact)

Project construction, including the Oceanside WPCP site, Central Reservoir, and pipeline alignments, would require tree limbing and vegetation removal as follows: vegetation removal adjacent to the entrance to the Central Reservoir facility, if widening of the entrance is required; vegetation removal at a stretch of pipeline between the Central Reservoir pump station addition and Overlook Drive or John F. Kennedy; removal of small ornamental palm trees in the Oceanside WPCP parking area; and tree and vegetation removal at a short stretch of pipeline between the recycled water treatment plant, the California Army National Guard parking lot, and Skyline Boulevard. No tree removal would occur within Golden Gate Park or at other project locations, other than those described above. However, tree trimming could be required at any project location. Article 16, Section 808 of the Public Works Code prohibits damage to protected trees in areas under SFDPW jurisdiction and trees located on City owned property. Therefore, the project includes several measures to protect trees adjacent to work areas as detailed in Section A.6.2, Construction, and as listed below.

- Establishing a Tree Protection Zone (TPZ) around any tree or group of trees to be retained. The formula typically used is defined as 1.5 times the radius of the dripline or 5 feet from the edge of any grading, whichever is greater. The TPZ may be adjusted on a case-by-case basis after consultation with a certified arborist.
- Marking the TPZ of any trees to be retained with permanent fencing (e.g., post and wire or equivalent), which would remain in place for the duration of construction activities in the area. "Keep out" signs would be posted on all sides of fencing.

⁶⁸ San Francisco Recreation and Park Department (SFRPD), *Significant Natural Resource Areas Management Plan*, February 2006.

- Prohibiting construction-related activities, including grading, trenching, construction, demolition, or other work within the TPZ; or, if work within the TPZ is necessary, performing the work in a manner that will adequately protect the tree. No heavy equipment or machinery would be operated within the TPZ. No construction materials, equipment, machinery, or other supplies would be stored within a TPZ. No wires or signs would be attached to any tree. Any modifications would be approved and monitored by a certified arborist.
- Pruning selected trees to provide necessary clearance during construction and to remove any defective limbs or other parts that may pose a failure risk. All pruning would be completed by a certified arborist or tree worker and adhere to the *Tree Pruning Guidelines* of the International Society of Arboriculture.

Implementation of these measures would ensure compliance with Article 16, Section 808 of the Public Works Code and thus avoid impacts associated with conflicts with applicable local policies or ordinances protecting biological resources. Further, because construction of facilities within Golden Gate Park would not require removal of trees, SFRPD Park Code and Golden Gate Park Master Plan policies regarding tree removal are not applicable to the proposed project. Therefore, the project would not conflict with local policies or ordinances protecting biological resources and there would be *no impact*.

Mitigation: None required.

Impact C-BI-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources. (Less than Significant with Mitigation)

The geographic context for the analysis of cumulative impacts on biological resources generally encompasses the open space areas around Lake Merced and central Golden Gate Park. Potential project impacts on biological resources could include those on special-status species: western pond turtle, California red-legged frog, special-status and migratory birds, and special-status bats. Past cumulative projects, including the development of civic facilities, residences, commercial and industrial areas, and infrastructure, have already caused substantial adverse cumulative changes to biological resources in San Francisco. For example, the project area was converted from its original sand dune habitat beginning over a century ago, with a nearly complete loss of the original habitat types and many of the species that once occurred there. Revegetated areas have matured over time and provide habitat for both native and non-native plant and animal species. However, the diversity of species in these revegetated areas is often simplified and the areas support a different suite of species than once existed. Overall, this is true of many areas throughout the region.

Many of the cumulative projects in the project vicinity would result in temporary impacts associated with construction. Most current and reasonably foreseeable projects that could result in significant cumulative construction impacts on biological resources are those that would be implemented in the Lake Merced area. These projects include infill development or renovation of facilities, such as the Vista Grande Drainage Basin Improvement Plan and the Parkmerced Project. Other projects with potential cumulative impacts are the construction of new pipelines and facilities for the San Francisco Groundwater Supply Project. These projects would primarily have temporary construction-related impacts on biological resources and are not

expected to convert or remove more than minor areas of habitat for plants and wildlife. Other projects, such as the proposed update to the SNRAMP, would include elements likely to result in beneficial effects on biological resources. Conservatively, this analysis assumes that there could be a significant cumulative impact on biological resources from the combination of these projects, given the historical impacts on biological resources in the vicinity.

The contribution of the proposed project to significant cumulative biological resources impacts could be considerable, due to the project’s potential to cause significant, project-specific impacts on sensitive biological resources. However, implementing **Mitigation Measures M-BI-1a through M-BI-1c** would avoid or substantially minimize the project’s effect on special-status species. As a result, these measures would reduce the project’s contribution to cumulative impacts on biological resources to a less-than-cumulatively considerable level (*less than significant*).

<i>Topics:</i>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
14. GEOLOGY AND SOILS—					
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Topics:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

None of the proposed project facilities would traverse areas of mapped earthquake-induced landslide susceptibility identified by the California Department of Conservation under the Seismic Hazards Mapping Act of 1990.⁶⁹ Therefore, Topic 14.(a)(iv) is *not applicable*.

The artificial fill and dune sand beneath the project area are sandy and would not be expansive. Further, any backfill materials used for the project would have a low expansion potential in accordance with the recommendations of the geotechnical reports for the project. Therefore, initial study Topic 14(d) is *not applicable*.

The proposed project would connect to the combined sewer system which is the wastewater conveyance system for San Francisco, and would not use septic tanks or other on-site land disposal systems for sanitary sewage. Therefore, initial study Topic 14(e) is *not applicable*.

Evaluation of geology and soils impacts that would result from implementation of the project is based on geotechnical reports prepared for the recycled water treatment plant⁷⁰ and proposed storage reservoir at the Central Reservoir site⁷¹ as well as published geologic information. Potential seismic impacts related to the project include seismically induced groundshaking, as well as liquefaction and related ground failures that could damage structures constructed under the proposed project. Construction-related impacts include potential erosion, excavation instability, and settlement from excavation dewatering.

Impact GE-1: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, or seismically induced ground failure. (Less than Significant)

Fault Rupture. The project area is not located within an Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults exist on or in the immediate vicinity of the area. The City College fault crosses the pipeline alignment north of Golden Gate Park. This fault was historically mapped as a fault but is currently considered a shear zone.⁷² Because this is not an active fault, minor displacement could occur in response to an earthquake on one of the regional faults. However, the potential for substantial fault

⁶⁹ California Department of Conservation, Division of Mines and Geology, State of California Seismic Hazard Zones, City and County of San Francisco, Official Map, November 17, 2000.
⁷⁰ Geotechnical Consultants, Inc. *Final Geotechnical Interpretive Report, Westside Recycled Water Project (WRWP), San Francisco, California*. January 2013.
⁷¹ San Francisco Department of Public Works, Infrastructure Design and Construction. *Geotechnical Report, Golden Gate Park Central Reservoir Expansion Project, San Francisco, California*. April 22, 2013.
⁷² Schlocker, Julius, 1974. Geology of the San Francisco North Quadrangle, California. Geological Survey Professional Paper 782. Available at <http://pubs.er.usgs.gov/pubs/pp/pp782>

displacement to occur along this shear zone is considered low. Therefore, impacts related to fault rupture would be *less than significant*.

Groundshaking. The intensity of the seismic shaking, or strong ground motion, in the project area during an earthquake would be dependent on the distance between the site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the site. Earthquakes occurring on faults closest to the site would most likely generate the largest ground motions. The US Geological Survey (USGS) concluded that there is a 63 percent probability of a strong earthquake (moment magnitude [Mw] 6.7⁷³ or higher) occurring in the San Francisco Bay region in the 30-year period between 2007 and 2036.⁷⁴ The faults that would be capable of causing the strongest groundshaking in the project area are the San Andreas fault, located a minimum of about 1.5 miles to the west and the Hayward fault, located a minimum of approximately 14 miles to the east as well as the San Gregorio, Calaveras, Mt. Diablo, and Rodgers Creek faults.

Based on regional shaking hazard mapping by the Association of Bay Area Governments (ABAG), the project area would experience violent ground shaking due to an earthquake one of the regional faults.⁷⁵ The intensity of earthquake-induced ground motions can also be described in terms of “peak ground acceleration,” which is represented as a fraction of the acceleration of gravity (g).⁷⁶ The site-specific seismic analyses for the Oceanside WPCP and Central Reservoir sites estimated that the expected peak ground acceleration at these sites would be 0.64g and 0.63g, respectively, and these values are consistent with very strong groundshaking.

Although the project area would be subject to very strong ground shaking in the event of a major earthquake, the project would not expose people or structures to substantial adverse effects related to ground shaking because all of the proposed facilities would be constructed according to current engineering standards which would ensure that they would not be substantially damaged as a result of seismic groundshaking. As is required by SFPUC design specifications, the proposed treatment plant at the Oceanside WPCP and storage reservoir at the Central Reservoir site would be designed and constructed in accordance with the most current engineering standards for design of structures, including the *San Francisco Building Code*, *California Building Code*, and the 2010 American Society of Civil Engineers/Structural Engineering Institute “Minimum Design Loads for Buildings and Other Structures” (ASCE/SEI 7-10). This standard provides definitions of seismic sources and specifies the procedures used to calculate seismic forces on structures during groundshaking. In accordance with this standard, the proposed treatment building would be a Risk Category III structure (i.e., an essential facility which would pose a substantial hazard to the community if it failed); the site would be classified as Site Class D (i.e. stiff soil); and the

⁷³ An earthquake is classified by the amount of energy released, expressed as the magnitude of the earthquake. Traditionally, magnitudes have been quantified using the Richter scale. However, seismologists now use a moment magnitude (Mw) scale because it provides a more accurate measurement of the size of major and great earthquakes. Moment magnitude is directly related to the average slip and fault rupture area.

⁷⁴ U.S. Geologic Survey (USGS), *The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)*, by the Working Group on California Earthquake Probabilities, Open File Report 2007-1437, 2008.

⁷⁵ Association of Bay Area Governments, 2014. *Earthquake and Hazards Program*, San Francisco County Earthquake Hazard. <http://quake.abag.ca.gov/earthquakes/sanfrancisco/>, accessed April 28, 2014.

⁷⁶ Acceleration of gravity (g) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

structure would be assigned Seismic Design Category F (i.e. site with a mapped spectral acceleration greater than 0.75).

Regarding the distribution pipelines and the new buried reservoir at the Central Reservoir site, the Building Seismic Safety Council (BSSC) acknowledges that facilities such as hydraulic structures, buried utility lines, and their appurtenances, are not typical structures and require technical considerations beyond the scope of the *California Building Code*.⁷⁷ However, these structures are covered by other well-established industry design criteria such as the American Water Works Association's standards for design and installation of steel pipe as well as pipe welding and flanges; standards of the American Society of Mechanical Engineers; and standards of the American Welding Society for structural welding.

Design in accordance with the *San Francisco Building Code*, *California Building Code*, and ASCE/SEI 7-10 as well as the other well-established industry design criteria such as those described above would be required by the SFPUC in their contract specifications for the project design. Incorporation of the appropriate engineering and design features would ensure that the proposed facilities would be able to withstand the calculated seismic forces and also ensure that they would not be substantially damaged in the event of a major earthquake. Therefore, impacts related to ground shaking would be *less than significant*.

Liquefaction, Lateral Spreading, and Earthquake-Induced Settlement. Liquefaction is a phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced, strong groundshaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude of earthquakes likely to affect the site. Saturated, unconsolidated silts, sands, silty sands, and gravels within 50 feet of the ground surface are most susceptible to liquefaction. The primary liquefaction-related phenomena include vertical settlement⁷⁸ and lateral spreading.⁷⁹ Pipelines constructed within liquefiable materials are more subject to damage in the event of an earthquake than those that are not, and water and wastewater pipelines are the most susceptible to damage.⁸⁰

During an earthquake, underground utilities tend to fail at the interface between a softer unit and a stiffer unit due to the settlement that occurs within the softer unit, a phenomenon known as differential settlement. Differential settlement is a concern because it can cause uneven movement of pipelines and building foundations, resulting in substantial damage, including cracks and breakage.

⁷⁷ Building Seismic Safety Council of the National Institute of Building Sciences (BSSC), NEHRP Recommended Seismic Provisions for New Buildings and Other Structures (FEMA P-750). 2009 Edition.

⁷⁸ During an earthquake, settlement can occur as a result of the relatively rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, non-compacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill or bay mud.

⁷⁹ Of the liquefaction hazards, lateral spreading generally causes the most damage. This is a phenomenon in which large blocks of intact, non-liquefied soil move downslope on a liquefied substrate of large aerial extent.

⁸⁰ Association of Bay Area Governments, 2001. The REAL Dirt on Liquefaction, A Guide to the Liquefaction Hazard in Future Earthquakes Affecting the San Francisco Bay Area. February.

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move downslope on a liquefied substrate of large aerial extent.⁸¹ When lateral displacement occurs, the mass moves toward an unconfined area, such as a descending slope or stream-cut bluff. Slopes ranging between 0.3 and 3 percent can displace the surface by several meters to tens of meters.

Neither the new treatment plant at the Oceanside WPCP nor the new buried storage reservoir at the Central Reservoir site are located in an area of liquefaction potential identified by the California Department of Conservation under the Seismic Hazards Mapping Act of 1990.⁸² The distribution pipelines would traverse an area of liquefaction potential along Skyline Boulevard that parallels the Lake Merced shoreline immediately to the east. This area could therefore be subject to liquefaction, earthquake-induced settlement and lateral displacement. However, the pipelines would not be subjected to substantial liquefaction damage because they would be constructed in accordance with the *San Francisco Building Code*, *California Building Code*, and ASCE/SEI 7-10 as well as other well-established industry design criteria such as those described for groundshaking above, which require such structures to be designed to withstand the expected seismic forces and the effects of liquefaction. Therefore, impacts related to liquefaction, earthquake-induced settlement, and lateral spreading would be *less than significant*.

Mitigation: None required.

Impact GE-2: The proposed project would not result in substantial erosion or loss of top soil. (Less than Significant)

Soil movement for excavation and other improvements could create the potential for wind- and water-borne soil erosion. However, the SFPUC would require the construction contractor to implement an erosion and sediment control plan for construction activities in accordance with Article 4.1 of the San Francisco Public Works Code (discussed in Topic 15, Hydrology and Water Quality) to reduce the impact of runoff from the construction sites. The City must review and approve the erosion and sediment control plan prior to implementation, and would conduct periodic inspections to ensure compliance with the plan. With implementation of the approved controls, subject to approval and inspection by the City, substantial erosion would not occur and impacts related to soil erosion would be *less than significant*.

The project area is built out, and most of the area is covered with impervious surfaces, including streets, sidewalks, and trails. The previous construction of these features would have involved removal of any top soil (a fertile soil horizon that typically contains a seed base). The approximately 150-foot segment of pipeline between the Central Reservoir site and John F. Kennedy Drive would cross an unpaved area of Golden Gate Park that is vegetated with turf, and would not likely have a well-developed top soil horizon, given that this area primarily consist of dune sands. Therefore, impacts related to loss of top soil would be *less than significant*.

⁸¹ Youd, T.L. and D.M. Perkins, "Mapping Liquefaction Induced Ground Failure Potential," Proceedings of the American Society of Civil Engineers, Journal of the Geotechnical Engineering Division, 1978.

⁸² California Department of Conservation, Division of Mines and Geology, State of California Seismic Hazard Zones, City and County of San Francisco, Official Map, November 17, 2000.

Mitigation: None required.

Impact GE-3: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project. (Less than Significant)

Construction of several project components would include excavation which could result in unstable slopes, including the new recycled water treatment plant, recycled water well, and reservoir used during the treatment process at the Oceanside WPCP; the new buried storage reservoir at the Central Reservoir site; and distribution pipelines. These activities and methods that would be employed to avoid adverse effects related to unstable soil are discussed below.

Construction of the proposed new facilities at the Oceanside WPCP would require removal of the base of an existing retaining wall at the property boundary with the Armory site, creating an exposed excavation face that could become unstable. However, in accordance with the recommendations of the geotechnical interpretive report for this site, the SFPUC would construct a new retaining wall to support this open excavation face.⁸³

Construction of the new recycled water treatment plant and underlying reservoir used during the treatment process at the Oceanside WPCP would entail excavation to a depth of about 32 feet below ground surface, or to an elevation of about 8 feet SFD. For this construction, one existing retaining wall near the property boundary with the Armory site would be demolished, which could also create unstable soil conditions. Excavation depths would be above the groundwater table (generally encountered at a depth of about 40 feet below ground surface at this location, or an elevation of about 2 feet SFD). Regardless, based on the presence of some shallow saturated soil, some dewatering may be necessary to maintain a dry excavation for construction of the new features and this dewatering could potentially also induce some ground settlement. In addition, construction of the wet well for recycled water storage would require excavation to a depth of five feet. However, in accordance with the recommendations of the geotechnical interpretive report for this site and Cal/OSHA regulations pertaining to temporary shoring in Title 8 of the California Code of Regulations, the excavation walls for these construction activities would be supported by conventional shoring methods such as soldier piles and lagging⁸⁴, which would prevent the excavation sidewalls from becoming unstable.

Further, the SFPUC would implement a monitoring program in accordance with the recommendations of the geotechnical interpretive report for this site.⁸⁵ The monitoring program would utilize an inclinometer to monitor for movement at the face of the excavations. The monitoring program would also include a baseline survey and frequent surveying of the excavation as construction progresses to evaluate the effects of construction and ensure that the soil and existing excavation walls do not become unstable. Surrounding

⁸³ Geotechnical Consultants, Inc. *Final Geotechnical Interpretive Report, Westside Recycled Water Project (WRWP), San Francisco, California*. January 2013.

⁸⁴ A soldier pile and lagging system includes concrete encased beams placed in drilled holes that extend below the bottom of the excavation. Timber lagging is placed between the beams to retain soil in the excavation sidewall as excavation proceeds.

⁸⁵ Geotechnical Consultants, Inc. *Final Geotechnical Interpretive Report, Westside Recycled Water Project (WRWP), San Francisco, California*. January 2013.

facilities and structures would also be inspected for cracks and other indications of stress prior to excavation activities, and would be monitored for potential movements during excavation.

In Golden Gate Park, construction of the new underground storage reservoir would entail excavation to a depth of about 25 feet below ground surface, which could result in unstable slopes and also reduce support for the existing reservoir. However, in accordance with the recommendations of the geotechnical report for this site and Cal/OSHA regulations pertaining to temporary shoring in Title 8 of the California Code of Regulations, the excavation would be appropriately shored using conventional shoring methods such as soldier piles and lagging.⁸⁶ Jet grouting may also be used, depending on site conditions.⁸⁷ The water level in the existing reservoir could also be lowered to reduce stresses on the reservoir, and the existing reservoir would also be underpinned if necessary to provide additional support.

Construction of the distribution pipelines would require excavation to shallower depths, on the order of 6 feet below ground surface, which could also create unstable conditions. However, these excavations would be appropriately shored in accordance with the regulatory requirements of the Cal/OSHA specified in Title 8 of the California Code of Regulations.

Implementation of the recommendations of the geotechnical reports for the project and excavation safety requirements specified in Title 8 of the California Code of Regulations, discussed above, would ensure that excavation activities under the proposed project do not result in unstable soils or geologic units. Therefore, this impact would be *less than significant*.

Mitigation: None required.

Impact GE-4: The project site would not substantially change existing topography or unique geologic features of the site. (No Impact)

The project area has no unique topographic, geologic, or physical features. Neither construction of the recycled water treatment plant at the Oceanside WPCP, underground storage reservoir at the Central Reservoir site, nor the buried distribution pipelines would substantially alter the topography of the area. Following major excavation and trenching activities, the site would be returned to existing grade. Therefore, there is *no impact* related to existing topography.

Mitigation: None required.

Impact C-GE: The proposed project would not have a significant cumulative impact related to geologic hazards. (Less than Significant)

Although the entire Bay Area is located within a seismically active region with a high risk of seismic hazards and a wide variety of geologic conditions, the geographic scope of potential geology and soils

⁸⁶ San Francisco Department of Public Works, Infrastructure Design and Construction. *Geotechnical Report, Golden Gate Park Central Reservoir Expansion Project, San Francisco, California*. April 22, 2013.

⁸⁷ Jet grouting involves mechanically mixing the in-place soil with grout to provide support for the excavation sidewalls.

impacts is restricted to the project area and immediate vicinity because related risks are relatively localized or even site-specific.

While the Vista Grande Drainage Basin Improvement Project and San Francisco Groundwater Supply Project would include construction of several features in the vicinity of Lake Merced, none would be on the Oceanside WPCP property where the new recycled water treatment plant and related features would be constructed under the proposed project. The San Francisco Groundwater Supply Project would also include construction of features in Golden Gate Park, including distribution pipelines along the same section of Middle Drive West and a new well facility at the Central Reservoir site. However, as discussed in Impact GE-3, implementation of the recommendations of the geotechnical reports for the proposed project and excavation safety requirements specified in Title 8 of the California Code of Regulations would ensure that construction activities under the proposed project do not result in unstable soils or geologic units and the Vista Grande Drainage Basin Improvement Project and San Francisco Groundwater Supply Project would be subject to the same standards. Therefore, cumulative impacts related to unstable soils and geologic units would be *less than significant*.

With regard to seismic hazards, the project area could be subjected to very strong groundshaking and portions of the project area could experience liquefaction in the event of an earthquake on a nearby fault. Features constructed under the Vista Grande Drainage Basin Improvement Project, San Francisco Groundwater Supply Project, and other construction projects in the general vicinity could also be subjected to these hazards. However, as discussed in Impact GE-1, all of the proposed project components would be designed and constructed in accordance with the most current building code requirements and engineering standards for seismic safety which would minimize the potential for damage. Features constructed under the Vista Grande Drainage Basin Improvement Project and any other construction projects in the general area would also be subject to the same requirements. Therefore, cumulative impacts related to groundshaking and liquefaction would be *less than significant*.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
15. HYDROLOGY AND WATER QUALITY—					
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project does not include the construction of housing. Further, the project area is not located within an area of sewer-related flooding identified by the SFPUC,⁸⁸ within a Special Flood Hazard Area identified on San Francisco's Interim Floodplain Map;⁸⁹ or an area that would be inundated with a sea level rise of 55 inches by 2100 based on mapping by the Pacific Institute.^{90,91} Therefore, Topics 15.(g) and 15.(h) are *not applicable*.

Impact HY-1: Project construction would not violate water quality standards or otherwise substantially degrade water quality. (Less than Significant)

During construction, the proposed project could result in water quality impacts as a result of stormwater runoff from the construction site and discharges of groundwater to the combined sewer system. However, as discussed below, both of these impacts would be less than significant with implementation of San Francisco regulatory requirements.

⁸⁸ San Francisco Planning Department, Planning Director Bulletin No. 4, Review of Project Identified in Areas Prone to Flooding, April 2007.

⁸⁹ City and County of San Francisco, San Francisco Interim Floodplain Map, West, Final Draft July, 2008.

⁹⁰ Pacific Institute, California Flood Risk: Sea Level Rise, San Francisco South OE W Quadrangle, 2009.

⁹¹ Pacific Institute, California Flood Risk: Sea Level Rise, San Francisco North Quadrangle, 2009.

Construction-Related Stormwater Discharges. During construction of the proposed project, water quality could be affected by erosion from grading and earthmoving operations, a release of fuels or other chemicals used during construction, or a release of materials generated during demolition and construction. Grading and earthmoving would expose soil during construction and could result in erosion, with excess sediments carried in stormwater runoff to the combined sewer system. Stormwater runoff from temporary on-site use and storage of vehicles, fuels, wastes, and building materials could also carry pollutants into the combined sewer system if these materials were improperly handled.

The federal Clean Water Act prohibits discharges of stormwater from construction projects unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Stormwater from the project site is collected in the Westside drainage area of the City's combined sewer system. Construction stormwater discharges to the system would be subject to the requirements of Article 4.1 of the San Francisco Public Works Code (supplemented by SFDPW Order No. 158170), which incorporates and implements the City's NPDES permit for the Oceanside WPCP and collection system as well as the Westside wet weather facilities. This permit also incorporates the requirements of the federal Combined Sewer Overflow (CSO) Control Policy. Any stormwater drainage during construction that flows to the City's combined sewer system would receive treatment at the Oceanside WPCP or other wet weather facilities and would be discharged through an existing outfall or overflow structure in compliance with the City's existing NPDES permit.

In accordance with Article 4.1, the SFPUC would be required to develop and implement an erosion and sediment control plan to reduce the impact of runoff from a construction site. The plan must include the following information: location and perimeter of the site; location of nearby storm drains and/or catch basins; existing and proposed roadways and drainage pattern within the site; and a drawing or diagram of the sediment and erosion control devices to be used on site. At a minimum, the plan would also contain a visual monitoring program and a chemical monitoring program for nonvisible pollutants that could result from use and storage of hazardous materials. The erosion and sediment control plan would also specify minimum BMPs related to housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, landscape materials, pollutant control); nonstormwater management; erosion control; sediment control; and run-on and runoff control.

In the project construction contract, the SFPUC would require the construction contractor to develop and implement the Erosion and Sediment Control Plan, which would reduce sedimentation and discharges of pollutants to the combined sewer system. During construction, the SFPUC could also conduct routine inspection of all BMPs to document compliance and identify deficiencies to be corrected. Implementation of construction site stormwater requirements developed to comply with Article 4.1 of the Public Works Code would therefore ensure that water quality impacts related to stormwater runoff during construction would be *less than significant*.

Construction-Related Groundwater Dewatering. As noted in Topic 14, "Geology and Soils," excavation for construction of the new recycled water treatment plant would extend to a depth of about 32 feet below grounds surface, or to an elevation of about 8 feet SFD. This excavation would be above the groundwater table (generally encountered at a depth of about 40 feet below ground surface at this location, or an elevation of about 2 feet SFD). Regardless, based on the presence of some shallow

saturated soil, some limited dewatering may be necessary to maintain a dry excavation for construction of the new features. If the groundwater produced during dewatering contained contaminants or excessive sediment, discharge of the groundwater into the combined sewer system could potentially degrade water quality.

Groundwater produced during construction-related dewatering would be discharged to the City's combined sewer system in accordance with a permit issued by the Wastewater Enterprise Collection System Division of the SFPUC in accordance with Article 4.1 of the *San Francisco Public Works Code*, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. This permit would contain appropriate discharge standards and may require installation of meters to measure the volume of the discharge.

As discussed in Topic 16, "Hazards and Hazardous Materials," a groundwater sample collected during the 2012 environmental investigation at the Oceanside WPCP did not contain detectable levels of oil and grease, sulfides, or volatile organic compounds. The detected metals concentrations were less than the discharge limitations specified in Article 4.1 or Order No. 158170. In addition, the pH of the groundwater was 6.85 which is within the acceptable range of 6.0 to 9.5. These results indicate that no treatment would be necessary for chemical constituents prior to discharge, although this determination would be made at the time of discharge and treatment would be used as necessary to meet discharge limitations. While the discharge could contain sediments, the groundwater would be treated as necessary to meet permit requirements prior to discharge.

With discharge to the combined sewer system in accordance with regulatory requirements, the quality of the discharges would be within the discharge limitations established for the combined sewer system and water quality impacts related to a violation of water quality standards or degradation of water quality due to discharge of groundwater during construction would be *less than significant*.

Because the excavation depth would be above the water table and because the temporary soil-cement wall that would support the one wall of the Recycled Water Treatment Plant excavation would further reduce flows into the excavation, limited dewatering under the proposed project would not affect groundwater flows in the underlying aquifer. Therefore, the dewatering would not induce seawater intrusion from the Pacific Ocean or affect the migration of the groundwater plume at the Janet Pomeroy Recreation and Rehabilitation Center located approximately 1,000 feet from the proposed new Recycled Water Treatment Plant, as discussed in Section E.16, Hazards and Hazardous Materials.

Mitigation: None required.

Impact HY-2: Project operation could violate water quality standards, but would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality. (Potentially Significant with respect to changes in effluent water quality; Less than Significant with respect to stormwater discharges, contributions to combined sewer overflows, and production, distribution, and use of recycled water)

The project area is located in an area served by the Westside drainage area of the combined sewer system. Without implementation of stormwater controls, construction and replacement of impervious surfaces at the recycled water treatment plant at the Oceanside WPCP and over the underground storage reservoir at the Central Reservoir site in Golden Gate Park, the rate or volume of stormwater flows to the combined sewer system could change once the project is constructed. In addition, the use of chemicals at the new recycled water treatment plant could provide additional sources of polluted runoff. Changes in discharges to the combined sewer system could also affect the frequency or duration of combined sewer discharges. Production and distribution of recycled water could also result in water quality impacts. However, each of these impacts would be *less than significant* with implementation of regulatory requirements as discussed below.

As described in the Project Description, concentrated brine solution from the reverse osmosis system used at the new water treatment plant at the Oceanside WPCP would be conveyed to the ocean for disposal through the Oceanside WPCP Southwest Ocean Outfall. Depending on the quality of this solution, addition to the Oceanside WPCP effluent could potentially result in an exceedance of effluent limitations established in the NPDES permit for the Oceanside WPCP, Southwest Ocean Outfall, and Westside Wet Weather Facilities, a *potentially significant* impact. However, the SFPUC is currently conducting studies regarding the effluent quality and NPDES permit limitations. Accordingly, this impact will be further analyzed and included in the EIR to determine if the impact would be significant.

Storm Drainage System Capacity and Additional Sources of Polluted Runoff

Construction of the new recycled water treatment plant would include the construction of approximately 5,000 square feet of new impervious surfaces in an area that is currently landscaped, and replacement of approximately 9,500 square feet of existing impervious surfaces at the Oceanside WPCP. Construction of the underground storage reservoir and new pump station would entail the replacement of existing impervious surfaces at the Central Reservoir site in Golden Gate Park. These changes in impervious surfaces could result in a small incremental change in the rate or volume of stormwater runoff to the combined sewer system. However, in accordance with San Francisco's Stormwater Ordinance (Article 4.2 of the San Francisco Public Works Code) and the San Francisco Stormwater Design Guidelines, the SFPUC would be required to implement stormwater best management practices that result in a 25 percent decrease in the peak rate and total volume of storm water runoff from the two-year 24-hour design storm (compared to existing conditions) using low-impact design (LID) techniques. This requirement applies to sites served by the combined sewer system that currently have more than 50 percent impervious surfaces and is equivalent to LEED Sustainable Sites Credit 6.1 (Stormwater Design: Quantity Control). To achieve this standard, the new recycled water treatment plant would be constructed with a green roof which would detain some of the stormwater, thereby reducing the rate and volume of runoff. The design of the new underground

storage reservoir and pump station would similarly include BMPs such as stormwater infiltration to ensure that the runoff flow rate and volume of stormwater discharges are reduced by 25 percent.

Compliance with the San Francisco Stormwater Design Guidelines could require that the SFPUC prepare a stormwater control plan for these facilities describing the BMPs that would be implemented and a plan for post-construction operation and maintenance of the BMPs. If required, the plan could include the following elements:

- Site characterization
- Design and development goals
- Site plan
- Site design
- Source controls to prevent pollutant generation and discharge by controlling pollution at its source
- Treatment control BMPs to remove pollutants from the stormwater runoff
- Comparison of design to established goals
- Operations and maintenance plan

The operations and maintenance plan, prepared as part of the stormwater control plan, would identify the individual(s) with operational responsibility for the facility, applicable maintenance requirements for each stormwater control, detailed requirements for each BMP, and required maintenance of facilities.

The stormwater control plan must be reviewed and stamped by a licensed landscape architect, architect, or engineer. The SFPUC Wastewater Enterprise would review the plan, certify compliance with the San Francisco Stormwater Design Guidelines, and inspect stormwater BMPs once they are constructed. Any issues noted by the inspection would be corrected. In accordance with the San Francisco Stormwater Design Guidelines, the SFPUC would also complete an annual self-certification inspection and compile completed checklists and maintenance logs for the year. In addition, the SFPUC would inspect all stormwater BMPs every third year, and any issues identified by the inspection would be resolved.

Regarding stormwater pollutants, all chemicals for the recycled water treatment process would be stored indoors in the existing Chemical Room 510 at the Oceanside WPCP. The chemical areas would be separated by chemical type (acid or base) and type of hazard and each chemical would have a dedicated containment area. Therefore, there would be no potential for stormwater contact with stored chemicals.

Implementation of stormwater controls in compliance with the San Francisco Stormwater Design Guidelines would ensure that the rate and volume of stormwater flows to the sewer system after project implementation would be reduced by 25 percent relative to existing conditions and the indoor storage of water treatment chemicals would ensure that the project would not provide an additional source of stormwater pollutants. Therefore, runoff from the project would not exceed the capacity of the existing storm sewer system and there would be no additional sources of polluted runoff, and this impact would be *less than significant*.

Combined Sewer Discharges

During wet weather (typically mid-October to the end of April), there is a wide variation in the volume of wet-weather flows to the combined sewer system resulting from the addition of stormwater discharges. The variation is directly related to rainfall intensity, and the treatment of wet-weather flows depends on the characteristics of the individual rainstorm. Wet weather flows in excess of 175 mgd (about 13 percent of the total wet-weather flows) are discharged at the shoreline through one of seven combined sewer discharge structures located along the coast. These discharge facilities are constructed to capture flows for a long-term average of eight discharges per year, and all combined flows are captured and treated to a minimum of the equivalent of primary treatment.

An increase in the combined project-related flows of stormwater and wastewater to the combined sewer system could affect compliance with the NPDES permit for the Oceanside WPCP, Southwest Ocean Outfall, and Westside Wet Weather Facilities if these additional flows resulted in an increase in the frequency or duration of combined sewer discharges along the Pacific Ocean coast. Beneficial uses of the Pacific Ocean could also potentially be affected. However, as discussed above, the SFPUC would be required to implement stormwater controls in accordance with the San Francisco Stormwater Design Guidelines to ensure that the stormwater runoff flow rate and volume are reduced by 25 percent relative to existing conditions. Further, there would not be a substantial increase in wastewater flows that could contribute to combined sewer discharges because the only increase in sewage would result from 4 new employees at the treatment plant and none of the other facilities would generate wastewater flows that would be discharged to the combined sewer. Therefore, because the project would not increase long-term flows to the combined sewer system from either stormwater runoff or sanitary sewage, water quality impacts related to an increase in the frequency or duration of combined sewer discharges would be *less than significant*.

Production, Distribution, and Use of Recycled Water

State Regulatory Framework for the Production and Use of Recycled Water. The California Water Code, Section 26 defines recycled water as “water which, as a result of treatment of municipal wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.” “Recycled water” and “reclaimed water” have the same meaning. Production and use of recycled water in California is well regulated by the California Department of Public Health (CDPH), SWRCB, and RWQCBs in accordance with the following California laws and regulations:

- California Health and Safety Code (Division 104; Part 12)
- California Water Code (Division 7; Chapters 2, 6, 7, and 22)
- California Code of Regulations, Title 22 (Division 4; Chapters 1, 2, and 3)
- California Code of Regulations, Title 17 (Division 1; Chapter 5)

In February 2009, the SWRCB approved Resolution No. 2009-0011 that formally adopted the California Recycled Water Policy. In January, 23, 2013, the SWRCB approved Resolution No. 2013-0003 that formally

adopted an amendment to the policy that addresses constituents of emerging concern⁹² for projects that use recycled water for groundwater recharge. The policy mandates a 200,000 acre-foot per year (afy) increase in the use of recycled water in California by 2020, and an additional 300,000 afy by 2030. To meet this goal, the policy encourages local agencies to emphasize water recycling because this water supply is drought-proof, reliable, and can be sustained over the long-term.

To implement a recycled water project, the producer or distributor must prepare an engineering report in compliance with Section 60323 of Title 22 of the California Code of Regulations (a Title 22 Engineering Report). The report must clearly demonstrate how the project will comply with water recycling criteria contained in Sections 60301 through 60355 of Title 22, and must be prepared by a properly qualified engineer. While the content of the report depends on the complexity of the project, the report must contain sufficient information to assure the regulatory agencies that the degree and reliability of treatment are commensurate with the requirements for the proposed use, and that the distribution and use of the recycled water will not create a health hazard or nuisance. The report is subject to the review and approval of the RWQCB and CDPH, and any conditions of approval specified by these agencies must be addressed.

The SWRCB adopted Order No. 2014-0090-DWQ, General Discharge Requirements for Recycled Water Use, on June 3, 2014. This order specifies requirements for all uses of recycled water authorized by Title 22 of the California Code of Regulations, except for groundwater recharge. The order acknowledges that the use of recycled water for irrigation purposes has the potential to increase nutrients in surface and groundwater. To address this, the order requires that recycled water used for irrigation purposes is applied at agronomic rates⁹³ and prohibits the application of recycled water when soils are saturated. Other prohibitions require that recycled water is not allowed to escape from the area of application as surface water flow. In addition, runoff or spray may not enter a dwelling or food handling facility, and may not contact any drinking water fountain.

During operation, the administrator of the General Discharge Requirements for Recycled Water Use⁹⁴ must implement a monitoring and reporting program to document compliance with the water quality requirements and prohibitions of the order. All monitoring and inspection results must be submitted to the RWQCB annually along with a list of new authorized recycled water users and a comprehensive discussion of the progress and results of the water recycling program.

⁹² Constituents of emerging concern (CECs) include chemicals such as endocrine disruptors, personal care products, and pharmaceuticals that are not removed during the wastewater treatment process. The SWRCB does not currently require monitoring for CECs in recycled water used for irrigation purposes. However, the agency has established a CEC advisory panel to provide recommendations regarding monitoring and the Recycled Water Policy and subsequently, the general permit may be revised at a later date to address the recommendations of the panel, if necessary.

⁹³ The term “agronomic rate” refers to a specific rate of irrigation that provides the precise amount of water and nutrient loading for the crop being irrigated that ensures that no excess water or nutrient would percolate beyond the root zone.

⁹⁴ The administrator of the permit may be the producer or distributor of the recycled water, or another legal entity.

The administrator of the General Discharge Requirements for Recycled Water Use must establish rules or regulations for recycled water use facilities and issue a permit to users to ensure the use of recycled water in compliance with applicable regulatory requirements. The administrator must also submit documentation to the CDPH regarding the proper installation and maintenance of backflow prevention devices mandated by Title 22, and the absence of cross connections at facilities that will use recycled water. The producer of recycled water must communicate the nutrient level of the recycled water to users of the water. In addition, the administrator must conduct periodic inspections of the user's facilities to determine compliance with applicable requirements. Any identified deficiencies must be remedied, or the use of recycled water at the facility may be terminated.

To obtain coverage under the General Discharge Requirements for Recycled Water Use, the applicant must submit a NOI to the RWQCB that includes the administrator's program for compliance with applicable regulatory requirements for the production, distribution, and use of recycled water. The order becomes effective when the RWQCB issues a Notice of Applicability (NOA). As part of this process, the RWQCB coordinates with the CDPH regarding approval of the Title 22 Engineering Report and the NOI is not considered complete until the engineering report is approved. Once the NOA is issued and the elements of the water recycling program are in place, the administrator may authorize specific water recycling projects on a case by case basis.

The order also calls on local water and wastewater entities to work with other stakeholders who contribute salts and nutrients to a groundwater basin to fund and develop a salt and nutrient plan. The plan must comprehensively address all sources of salts and nutrients to insure that the overall impact of permitted water recycling does not degrade groundwater resources. The requirement for this plan would be invoked by the RWQCB and in the absence of such a plan, the administrator must participate in the RWQCB's existing salt and nutrient management planning effort.

San Francisco Regulatory Framework for the Production and Use of Recycled Water. The CCSF's Reclaimed Water Ordinance, contained in Article 22 of the San Francisco Public Works Code, specifies that certain development projects of 40,000 square feet or more, and irrigated areas of 10,000 square feet or more that are located within designated Reclaimed Water Use Areas must use recycled water for nonpotable uses unless an exemption is granted. The owner, operator, or manager of a development project or irrigation system must register with the SFPUC and obtain a reclaimed water use certificate for the reclaimed water system, and the SFPUC may inspect any recycled water operations to ensure compliance with the Reclaimed Water Ordinance, including mandatory use of recycled water.

The CCSF also requires the SFRPD, in Park Code Section 3.19, to develop a plan and schedule for maximizing water use efficiency and converting irrigation systems in all property under its jurisdiction to recycled water or storm water use. All irrigation system renovation and rehabilitation projects must be designed for use of recycled water.

Impacts Related to Production and Use of Recycled Water. The proposed project would produce and distribute disinfected tertiary recycled water that has been filtered and subsequently disinfected to meet the water quality criteria defined in Sections 60301.230 and 60301.320 of Title 22 of the California Code of Regulations. The recycled water would be distributed to three use areas for irrigation, including Golden

Gate Park, the Lincoln Park Golf Course, and the Presidio. The system would produce sufficient water to add other small parks and irrigation areas to the distribution system in the future. In addition, the recycled water would be used for toilet and urinal flushing at the California Academy of Sciences in Golden Gate Park.

As described above, the SFPUC would be required to prepare a Title 22 Engineering Report that demonstrates how the project will comply with water recycling criteria contained in Sections 60301 through 60355 of Title 22. The SFPUC would also implement the requirements of the General Discharge Requirements for Recycled Water Use, including development of a water recycling program; implementation of a monitoring and reporting program; and enforcement of specific requirements for recycled water use under San Francisco's Reclaimed Water Ordinance. Adherence to these regulatory requirements would ensure that high-quality recycled water is consistently produced, monitored, and carefully applied, and that public health and surface and groundwater quality are protected. Therefore, impacts related to the production, distribution, and use of recycled water would be *less than significant*.

Mitigation: None required.

Impact HY-3: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. (Less than Significant)

The proposed project is located within the portion of the Westside Groundwater Basin located within San Francisco. This portion of the basin is currently used for nonpotable water supply (irrigation and lake/pond fill at Golden Gate Park, the Zoo, and Pine Lake Park) and is planned for use as a municipal water supply. The project would not result in depletion of groundwater resources in this basin because, other than temporary dewatering during construction, the project would not involve the extraction of groundwater for any purposes. Project implementation would not interfere with groundwater recharge because, as discussed in Impact HY-2, the only new impervious surfaces created would be an approximately 5,000 square-foot area, currently landscaped, for the new recycled water treatment plant at the Oceanside WPCP. The remainder of the project area is almost completely covered with impervious surfaces under existing conditions and would continue to be under the proposed project. Further, use of recycled water would replace use of groundwater currently used for irrigation and lake/pond fill at Golden Gate Park. Given that the project would not include long-term extraction of groundwater and would only result in a very small increase in impervious surfaces, impacts related to the depletion of groundwater resources and interference with groundwater recharge would be *less than significant*.

Mitigation: None required.

Impact HY-4: The proposed project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site. (Less than Significant)

The project area does not include any existing streams or water course that could be altered or diverted, and there are no surface impoundments, wetlands, natural catch basins, or settling ponds within the project area. Therefore, there would be no impact related to alteration of drainage patterns by altering the course of a stream in a manner that would cause erosion or flooding on or off-site.

As discussed in Impact HY-2, the only new impervious surfaces constructed under the proposed project would be an approximately 5,000 square-foot area at the Oceanside WPCP. Existing impervious surfaces at the Oceanside WPCP and the Central Reservoir site would be replaced. Depending on their configuration, these new surfaces could alter drainage patterns. However, as discussed in Impact HY-2, the SFPUC would be required to implement stormwater controls to reduce the rate and volume of stormwater flows from these sites by 25 percent relative to existing conditions in accordance with San Francisco's Stormwater Design Guidelines. Implementation of stormwater BMPs in compliance with the design guidelines, including the green roof at the new recycled water treatment plant, would reduce the peak quantity and peak rate of stormwater runoff to the city's combined sewer system, decreasing the potential for erosion and flooding. The only other project components that would involve excavation and could potentially alter drainage patterns are the distribution pipelines and various shallow excavations at the Oceanside WPCP. These excavations would be backfilled and returned to existing conditions once the pipelines are installed, therefore this would not result in an alteration of drainage patterns. Therefore, potential impacts related to the alteration of drainage patterns would be *less than significant*.

Mitigation: None required.

Impact HY-5: The proposed project would not expose people or structures to a significant adverse effects, including the risk of loss, injury, or death involving including flooding as a result of the failure of a levee or dam or by seiche, tsunami, or mudflow. (No Impact)

The distribution pipelines along 36th Avenue cross the reservoir inundation hazard zone for the Sunset Reservoir at Pacheco and Ortega Streets, and also where the pipelines cross Lincoln Parkway at Golden Gate Park.⁹⁵ However, the pipelines are underground features that would not be adversely affected by flooding once constructed. Further, the project area is not located on or near a slope that could be subject to mudflow. Based on the state's official tsunami inundation maps, the project area is not located within a tsunami inundation zone.⁹⁶ Therefore, there is *no impact* related to failure of a levee or dam or by seiche, tsunami, or mudflow.

Mitigation: None required.

⁹⁵ URS Corporation, City and County of San Francisco Hazard Mitigation Plan, December, 2008. Map C-14.

⁹⁶ California Emergency Management Agency, California Geological Survey, University of Southern California. Tsunami Inundation Map for Emergency Planning, San Francisco North Quadrangle/San Francisco South Quadrangle (Pacific Coast). June 15, 2009.

Impact C-HY: The proposed project would not have a significant cumulative hydrology and water quality impact. (Less than Significant)

Impacts resulting from the proposed project are limited to potential water quality impacts on the Westside drainage basin of the combined sewer system and the Pacific Ocean as well as adverse effects on groundwater resources of the Westside Groundwater Basin. Therefore, the geographic scope of potential cumulative impacts on water quality encompasses the western portions of San Francisco, the Pacific Ocean coastline, and the Westside Groundwater Basin.

Water Quality Standards, Degradation of Water Quality, and Storm Sewer Capacity

Erosion and Use of Hazardous Materials During Construction and Groundwater Dewatering Discharges.

As described in Impact HY-1, construction activities associated with the proposed project could degrade water quality as a result of increased soil erosion and associated sedimentation as well as an accidental release of hazardous materials. Discharges of dewatering effluent from excavated areas could also adversely affect water quality. However, these discharges would flow into San Francisco's combined sewer system and would be subject to the requirements of Article 4.1 of the San Francisco Public Works Code (supplemented by SFDPW Order No. 158170), which incorporates and implements the SFPUC's NPDES permit and the federal CSO Control Policy for discharges from the combined sewer system. The cumulative projects within the vicinity and throughout San Francisco that would also include discharges to the combined sewer system would be subject to the same regulatory requirements, and adherence to the SFPUC's NPDES permit stipulations would ensure compliance with water quality objectives. Therefore, cumulative impacts related to degradation of water quality would be *less than significant*.

Combined Sewer Overflows During Operation and Storm Sewer Capacity. As discussed in Impact HY-2, with compliance with San Francisco's Stormwater Ordinance and Stormwater Design Guidelines, implementation of the proposed project would result in a decrease in combined stormwater and wastewater flows to the combined sewer system. Other development projects in the City would also be required to reduce or maintain stormwater flows in accordance with the same regulatory requirements, and to decrease wastewater flows in accordance with San Francisco's Green Building Ordinance and the City's Stormwater Design Guidelines. The net effect of these projects on combined sewer discharges would depend on the relative volume of wastewater increases and stormwater decreases. However, the project would not have a cumulatively considerable contribution to any increase in combined sewer discharges. Therefore, the project's contribution to combined sewer overflows, storm sewer capacity, and additional sources of stormwater pollutants would not be cumulatively considerable and this impact would be *less than significant*.

Depletion of Groundwater Resources

The proposed project and many of the cumulative projects could require groundwater dewatering during construction or groundwater pumping (such as the San Francisco Groundwater Supply Project and the Groundwater Storage and Recovery Project). Groundwater dewatering during construction under the proposed project, in combination with other groundwater dewatering and groundwater pumping in the vicinity, could result in a cumulatively significant impact from the depletion of groundwater resources. However, as discussed in Impact HY-3, the project would not result in the depletion of groundwater

resources because any effects of dewatering during construction would be temporary in nature, and groundwater levels would return to normal once dewatering has stopped at the completion of construction of the proposed project.

The project would also result in a net increase of 5,000 square feet of impervious surfaces. Other cumulative projects could also increase impervious surfaces in the Westside Groundwater Basin, potentially resulting in a cumulative impact related to interference with groundwater recharge. However, the new impervious surfaces created under the proposed project would result in a miniscule change in the amount of impervious surface in the total 45 square-mile-area of the groundwater basin. It is reasonable to conclude that the proposed project would have no measurable effect on groundwater recharge. Therefore, the proposed project's contribution to cumulative impacts related to groundwater depletion and interference with groundwater recharge would not be cumulatively considerable (*less than significant*).

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
16. HAZARDS AND HAZARDOUS MATERIALS –					
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, Topics 16(e) and 16(f) are *not applicable*.

Impact HZ-1: The proposed project would not create a significant hazard through routine transport, use, or disposal of hazardous materials. (Less than Significant)

Regulatory Framework for Hazardous Materials Handling

Several articles of the *San Francisco Health Code* implemented by the San Francisco Department of Public Health (SFDPH) address the handling of hazardous materials, extremely hazardous materials, and hazardous wastes:

- Article 21 of the *San Francisco Health Code* provides for safe handling of hazardous materials in the City. It requires any person or business that handles, sells, stores, or otherwise uses specified quantities of to keep a current certificate of registration and to implement a hazardous materials business plan. A special permit is required for underground storage tanks (USTs). This article also incorporates state tank regulations.
- Article 21A of the *San Francisco Health Code* provides for safe handling of federally regulated hazardous, toxic, and flammable substances in the City, requiring businesses that use these substances to register with SFDPH and prepare a Risk Management Plan that includes an assessment of the effects of an accidental release and programs for preventing and responding to an accidental release. (While chlorine would be used under the proposed project and is identified as a regulated substance in accordance with Article 21A, the quantity stored would be less than the threshold quantity of 100 pounds, therefore this article does not apply to the proposed project.)
- Article 22 of the *San Francisco Health Code* provides for safe handling of hazardous wastes in the City. It authorizes SFDPH to implement the state hazardous waste regulations, including authority to conduct inspections and document compliance.

Impacts Related to Hazardous Materials Use

Use of Hazardous Materials During Construction. Construction under the proposed project would use common hazardous materials such as fuels, lubricants, and solvents needed for the fueling and maintenance of construction equipment. However, construction activities would be subject to the requirements of Article 4.1 of the San Francisco Public Works Code (see Impact HY-1 in Topic 14, Hydrology and Water Quality). In accordance with this article, and consistent with the SFPUC’s Water Pollution Prevention Program, the contractor would be required to develop and implement an Erosion and

Sediment Control Plan specifying measures to prevent stormwater pollution and control runoff at each site, in conformance with any applicable stormwater management controls adopted by the SFPUC.⁹⁷ At a minimum, the plan would include a visual monitoring program and a chemical monitoring program for nonvisible pollutants. The plan would specify minimum BMPs related to housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, landscape materials, pollutant control); and run-on and runoff control. The SFPUC would require the construction contractor to develop and implement the plan and also could conduct routine inspection of all BMPs. Implementation of the specified BMP measures in accordance with the Erosion and Sediment Control Plan would ensure that the potential impact of the use of hazardous materials during construction is *less than significant*.

Operational Uses of Hazardous Materials. The SFPUC would use a variety of chemicals in the recycled water treatment process including coagulants, antiscalants, citric and sulfuric acids, sodium bisulfite, lime, caustic soda, and sodium hypochlorite.⁹⁸ These chemicals would all be stored in separate containment areas within the existing chemical storage building. To ensure the safe handling of these materials, the SFPUC would continue to comply with the requirements of the City's hazardous materials handling requirements specified in Article 21 of the *San Francisco Health Code*. In accordance with this article, the Oceanside WPCP Certificate of Registration and Hazardous Materials Business Plan on file with the SFDPH would be revised to reflect the increased quantities of hazardous materials used. The Hazardous Materials Business Plan includes chemical inventories, a program for reducing the use of hazardous materials and generation of hazardous wastes, site layouts, a program and implementation plan for training all new employees and annual training for all employees, and emergency response procedures and plans which provides for safe handling of hazardous materials, and also allows emergency responders to safely respond to a chemical emergency at the facility, if one were to occur. Any hazardous wastes produced would be managed in accordance with Article 22 of the *San Francisco Health Code*.

Compliance with the *San Francisco Health Code*, which incorporates state and federal requirements, would minimize potential exposure of site personnel and the public to any accidental releases of hazardous materials or waste and would also protect against potential environmental contamination. In addition, transportation of hazardous materials is well regulated by the California Highway Patrol and the California Department of Transportation. Therefore, the potential impacts related to the routine use, transport, and disposal of hazardous materials associated with implementation of the project would be *less than significant*.

Mitigation: None required.

⁹⁷ San Francisco Public Utilities Commission (SFPUC), Construction Site Runoff Pollution Prevention Procedures. Available online at <http://www.sfwater.org/index.aspx?page=235>. Accessed February 27, 2014.

⁹⁸ San Francisco Water, Power, Sewer, Engineering Management Bureau. San Francisco Westside Recycled Water Project, Project No. CUW 30201, Conceptual Engineering Report, Draft, October 2013.

Impact HZ-2: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose workers and the public to adverse effects from release of hazardous materials. (Less than Significant)

Naturally occurring asbestos can be associated with Franciscan ultramafic rocks containing serpentinite⁹⁹ or Franciscan mélange.¹⁰⁰ The project area is primarily underlain by dune sands and excavation for the new Recycled Water Treatment Plant would also extend into the Colma Formation.¹⁰¹ These are sedimentary deposits that would not contain naturally occurring asbestos, and no bedrock of the Franciscan Complex would be encountered during construction. Therefore, impacts related to exposure to naturally occurring asbestos would be less than significant.

Based on historic land uses and the presence of historic and current USTs along the distribution pipeline routes, the SFPUC could encounter hazardous materials during construction, and previously unidentified USTs during excavation. Soil and groundwater could contain hazardous materials and require special handling/disposal procedures. Site conditions related to the potential presence of hazardous materials and previously identified USTs are described below, along with regulatory requirements that would be required and would ensure that workers and the public do not experience adverse effects related to hazardous materials exposure.

Discussion of Existing Conditions

Environmental investigations have been conducted to evaluate soil and groundwater quality at the Oceanside WPCP and Central Reservoir site in Golden Gate Park where subsurface excavation would be conducted under the proposed project.

Oceanside Water Pollution Control Plant. The soil investigation at the Oceanside WPCP, conducted in 2012, included the analysis of 13 composite samples from five soil borings completed within the footprint of the proposed treatment plant to depths of 30 feet.¹⁰² Total petroleum hydrocarbons as gasoline, diesel, and motor oil were detected in 7 to 10 of the soil samples and the concentration of motor oil exceeded health-based screening criteria for commercial/industrial land uses in two soil samples. None of the soil samples contained detectable levels of benzene, toluene, ethylbenzene, xylenes, methyl tertiary-butyl ether (MTBE), other volatile organic compounds, or semivolatile organic compounds.

The soil samples were also analyzed for Title 22 metals. Arsenic was detected in all of the soil samples at concentrations that do not exceed naturally occurring levels of arsenic in San Francisco Bay Area soils and would therefore not require remediation. None of the other detected metals concentrations exceeded the

⁹⁹ Serpentine is a naturally occurring group of minerals that can be formed when ultramafic rocks are metamorphosed during uplift to the earth's surface. Serpentinite is a rock consisting of one or more serpentine minerals. This rock type is commonly associated with ultramafic rock along earthquake faults. Small amounts of chrysotile asbestos, a fibrous form of serpentine minerals, are common in serpentinite.

¹⁰⁰ Mélange is a mixture of rock materials of differing sizes and types typically contained within a sheared matrix.

¹⁰¹ San Francisco Water, Power, Sewer, Engineering Management Bureau. San Francisco Westside Recycled Water Project, Project No. CUW 30201, Conceptual Engineering Report, Draft, October 2013.

¹⁰² AEW Engineering, Environmental Investigation Report, Westside Recycled Water Site, San Francisco, California. September, 2012.

commercial/industrial health-based screening levels or hazardous waste classification criteria. Based on the results, the excavated soil would be suitable for disposal as a non-hazardous waste and could also be used on-site for backfill material.

No groundwater was encountered during the installation of soil borings at this site. However, groundwater from a nearby groundwater monitoring well was sampled to evaluate the suitability of the groundwater quality for discharge to the combined sewer system if groundwater dewatering is required under the proposed project. The groundwater sample did not contain detectable levels of volatile organic compounds, oil and grease, or sulfides. None of the detected metals concentrations exceeded the discharge criteria specified in Article 4.1 of the San Francisco Public Works Code and Order No. 158170.

Central Reservoir Site. The soil investigation at the Central Reservoir site, conducted in 2010, included the analysis of four composite soil samples collected from two test pits excavated to a depth of about 15 feet and 10 composite soil samples from six soil borings completed to depths of up to 49.5 feet.¹⁰³ Total petroleum hydrocarbons as diesel and motor oil were detected in eight of the soil samples, and the concentration detected in four of the soil samples exceeded health-based screening levels for commercial/industrial land uses. None of the soil samples contained detectable levels of total petroleum hydrocarbons as gasoline, benzene, toluene, MTBE, other volatile organic compounds, semivolatile organic compounds, asbestos, or polychlorinated biphenyls (PCBs).

The soil samples were also analyzed for Title 22 metals. Arsenic was detected in all of the soil samples at concentrations that do not exceed naturally occurring levels of arsenic in San Francisco Bay Area soils and would therefore not require remediation. None of the other detected metals concentrations exceeded commercial/industrial health-based screening levels.

For waste disposal purposes, the soluble lead concentration in soil represented by one to two samples could require disposal as a California hazardous waste at a facility such as the Kettlemen Hills facility, although additional sampling could be required to confirm the waste designation. The remainder of the soil would be suitable for disposal as a Class II non-hazardous waste and the soil investigation report also concluded that this soil would be suitable for reuse within the construction area of the project as well.

Soil Quality Along Pipeline Alignments. Environmental investigations have not been conducted to evaluate soil quality along the proposed distribution pipeline routes. Instead, an environmental database review was conducted to identify permitted hazardous materials uses,¹⁰⁴ environmental cases,¹⁰⁵ and historic hazardous materials uses along the alignments and within a ¼ mile buffer zone. The discussion below focuses on those sites with the potential to affect soil or groundwater quality within the pipeline alignments and those that provide further information to evaluate conditions that may be encountered

¹⁰³ AEW Engineering, Draft Soil Investigation Report, Golden Gate Park Reservoir Project, San Francisco, California. August, 2010.

¹⁰⁴ Permitted hazardous materials uses are facilities that use hazardous materials or handle hazardous wastes but comply with current hazardous materials and hazardous waste regulations.

¹⁰⁵ Environmental cases are sites suspected of releasing hazardous substances or that have had cause for hazardous materials investigations and are identified on regulatory agency lists. These are sites where soil and/or groundwater contamination is known or suspected to have occurred.

during excavation for pipeline installation. The regional groundwater flow direction in the project vicinity is towards the northwest.

Those sites identified along or adjacent to the proposed pipeline alignments are summarized below and listed in Appendix 2. There are nine sites within approximately ¼-mile of the Oceanside WPCP at the southernmost end of the transmission pipeline alignment (Sites 1 through 9). They include the following three environmental cases:

- The San Francisco Armory at 100 Armory Drive (Site No. 1) is identified in the Military Cleanup Site (MCS) database. This case was closed in 2012, but the records available through the State Water Resources Control Board Geo Tracker database do not include records of the type of contaminants or remedial actions taken at the site.
- The Janet Pomeroy Recreation and Rehabilitation Center at 207 Skyline Boulevard (Site No. 5) is located approximately 1,000 feet to the northeast of the proposed new Water Treatment Plant. This site is identified as a leaking underground storage tank case. Two USTs were previously removed from this site, including a 10,000 gallon tank in 1999 and 3,500 gallon tank in 2001. Soil and groundwater quality at this site have been affected, and the site owner previously attempted vapor extraction system to remediate the soil and groundwater.¹⁰⁶ While the groundwater plume is not migrating towards Lake Merced, the RWQCB and the site owner have determined that the vapor extraction system did not provide adequate remediation. This leaking underground storage tank site is currently open and options for further remediation are under consideration. However, as of September 2013, the plume was located entirely within the site boundaries.
- The San Francisco AAA Battery 61-N (Site No. 9) is identified as a Formerly Used Defense Site (FUDS database) and also the Department of Toxic Substances Control Envirostor database which includes sites that have known contamination or sites for which there may be reasons to investigate further. The US 6th Army used this 16-acre site for a gun site during a 25-year lease with the City and County of San Francisco. The FUDS database indicates there are no potential hazards from Department of Defense activities at this site, but the Envirostor database reports that the potential contaminant of concern is explosives. The site is currently a vacant lot enclosed by a fence.

The remaining six sites in this vicinity are either permitted or historic UST sites, a historic dry cleaners, or have permitted hazardous wastes for off-site disposal (HAZNET database).

There are no environmental cases located along the distribution pipeline alignment between the Oceanside WPCP and the Central Reservoir site. However, there are two historic auto service stations, three historic cleaners, and one site that has manifested hazardous wastes for off-site disposal (Site Nos. 10 through 15). While contamination has not been identified at these sites, there is the potential for residual contamination as a result of historic site activities.

¹⁰⁶ City and County of San Francisco, Department of Public Health, letter to Pomeroy Recreation and Rehabilitation Center, subject: Groundwater Monitoring and Remediation System Report 2Q13, Janet Pomeroy Center, 207 Skyline Blvd, San Francisco, LOP Case Number: 11198. January 29, 2014.

There are two environmental cases as well as 13 permitted hazardous materials uses or historic uses of hazardous materials along the pipeline alignment between the Central Reservoir site and Lincoln Park (Sites 16 through 30). The environmental cases include two leaking underground storage tank sites (Site Nos. 25 and 30). These are one residential property and one commercial property that experienced a release of diesel or waste oil. Both releases affected soil quality only, and the cases have been closed by the regulatory agencies. The remaining sites identified along this pipeline alignment include seven sites with permitted USTs (almost all residential properties), two historic auto service stations, two historic cleaners, and three sites that have manifested hazardous waste for off-site disposal. In addition, Fort Miley at Lincoln Park is identified as a military UST site. The environmental database review indicates that in 1993, nine USTs were closed in place at this site, and the associated piping and affected soil were removed.

There are no environmental cases along the pipeline alignment between the Central Reservoir site and the Presidio. However, there are 12 permitted hazardous materials uses (Site Nos. 31 through 42) including eight sites with permitted USTs, three sites that have manifested hazardous wastes for off-site disposal, and one site that is a small quantity generator of hazardous wastes under the Resource Conservation and Recovery Act (RCRA).

Although the proposed project does not involve work within the Presidio, it will involve excavation up to the Presidio boundary. The Presidio of San Francisco is identified as a military UST and cleanup site. The environmental database review indicates that a 500-gallon UST, 750 gallon UST, four 1,000 gallon USTs, and two 17,000 gallon USTs were removed from this site in 1993; one 14,000 gallon UST was removed in 1996; and an additional UST was removed in 2012. The Presidio is also identified in the Response and Envirostor databases which include sites that have known contamination or sites for which there may be reasons to investigate further. The contaminants of concern at the Presidio are listed as arsenic and lead.

There are seven environmental cases located along the distribution pipeline alignment adjacent to the Golden Gate Park Panhandle as well as seven permitted hazardous materials uses or historic uses of hazardous materials (Site Nos. 43 through 56). Six of the environmental cases are residences along Oak Street or Stanyan Street that are identified in the leaking underground storage tank databases. All of these cases involved releases of heating oil and have received closure from the regulatory agencies. The seventh case is a service station on Stanyan Street where a release of gasoline affected groundwater quality. This site has also received regulatory closure. The remainder of the sites includes five permitted UST sites, one site which has manifested hazardous waste for off-site disposal, and one historic automobile service station.

In addition to those sites described above that are along or adjacent to the proposed pipeline alignments, the environmental database review identified environmental cases within a ¼-mile buffer zone of the pipeline alignments. Those sites that were considered to have the potential to affect soil or groundwater quality within the pipeline alignments are those identified in the leaking underground storage tank databases. Each site identified within this buffer zone is listed in **Table A2-3** in Appendix 2; they include 56 leaking underground storage tank sites. While most of these sites would have low potential to affect soil quality within the pipeline alignments, the density of leaking underground storage tank sites together with the sites with permitted USTs located along the alignments indicate a high potential to encounter USTs within the pipeline alignments and potentially soil that has been affected by a release from a UST, particularly along the pipeline alignments to the north of Golden Gate Park and adjacent to the Panhandle.

Regulatory Requirements for Site Investigation and Cleanup

The SFDPH provides oversight for the assessment and remediation of contaminated sites in the City and County of San Francisco under the Site Assessment and Mitigation Program. The types of sites managed under this program include sites subject to the Maher Program and sites affected by a release from a UST being addressed under the Local Oversight Program. The SFDPH also administers UST and facility closure requirements.

Maher Program. Article 22A of the *San Francisco Health Code* (also known as the Maher Ordinance) requires, prior to issuance of a building permit, that the project sponsor retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment (ESA) that meets the requirements of *San Francisco Health Code* Section 22.A.6. The Phase I ESA would determine the potential for site contamination and level of exposure risk associated with the project. Based on that information, the project sponsor may be required to conduct soil and/or groundwater sampling and analysis. Where such analysis reveals the presence of hazardous substances in excess of state or federal standards, the project sponsor is required to submit a site mitigation plan (SMP) to SFDPH or other appropriate state or federal agency(ies), and to remediate any site contamination in accordance with an approved SMP prior to the issuance of any building permit. For departments, boards, commissions and agencies of the City and County of San Francisco that authorize construction or improvements on land under their jurisdiction where no building or grading permit is required, the ordinance requires protocols be developed between that entity and SFDPH that will achieve the environmental and public health and safety goals of Article 22A.

Article 22A of the *San Francisco Health Code* applies to any site identified within the Maher area as well as any site that is:

- on a lot either currently or previously either zoned for or permitted for industrial use;
- within 150 feet of any of the elevated portions of U.S. Highway 101, Interstate 80 or Interstate 280;
- on a lot known or suspected by SFDPH to contain hazardous substances in the soil and/or groundwater; or
- on a lot known or suspected by SFDPH to contain or to be within 100 feet of an underground storage tank.

The project would be subject to Article 22A because it is located on a site that has been permitted for an industrial use and based on proximity of the pipelines to underground storage tanks.

Local Oversight Program. Under the Local Oversight Program, the SFDPH provides oversight for sites that have experienced a release from a UST, pursuant to Title 23 of the California Code of Regulations, Chapter 16. Under this program, the SWRCB provides regulatory guidance and also reviews, comments on, and approves site assessment reports, feasibility studies, and work plans; reviews monitoring data to evaluate the effectiveness of the remediation strategy; and upon completion of remediation, issues a letter or other document that certifies that the cleanup goals have been met.

UST and Facility Closure. Article 21 of the *San Francisco Health Code* addresses closure of USTs and other hazardous materials handling facilities. To close a facility (including USTs), a closure plan must be prepared

that identifies how the need for future maintenance of the facility will be eliminated; how the threat to the environmental and public health and safety will be eliminated, and how all hazardous materials in the facility will be removed and appropriately disposed of. The plan must be submitted to the City for approval prior to closure.

This article also requires that soil from the UST excavation, and possibly the groundwater, be sampled. Upon completion of closure, a final report documenting UST removal activities and any residual contamination left in place must be submitted to the City. Upon approval of this report, the City would issue a Certificate of Completion. If a release were indicated, the site owner would be required to assess the extent of any contamination and conduct a site remediation, as needed, in compliance with the SFDPH Local Oversight Program requirements. The SFDPH could approve abandonment of the UST in place if removal were infeasible.

Impacts Related to Exposure to Hazardous Materials in Soil and Groundwater

Closure of previously unidentified USTs. As discussed above, there is a high potential to encounter USTs within the pipeline alignments, particularly along the pipeline alignments to the north of Golden Gate Park and adjacent to the Panhandle. Without proper precautions, workers and the public could be exposed to petroleum products potentially remaining in the USTs or in the surrounding soil.

However, if a previously unidentified UST were encountered in the excavation area, the SFPUC, or if in the public right-of-way or on other non-SFPUC property, the tank owner, would be required to close the UST in accordance with Article 21 of the *San Francisco Health Code*. This article would require a closure plan identifying appropriate requirements for disposition of any remaining hazardous materials in the tank and the tank itself. The closure plan would be submitted to the City for approval prior to removal of the UST. Soil from the UST excavation, and possibly the groundwater, would also be sampled in accordance with Article 21. Upon completion of closure, a release or contamination report would be submitted to SFDPH if a release were indicated on the basis of visual observations or sampling, and a final report documenting tank removal activities and any residual contamination left in place would be submitted to SFDPH. Upon approval of this report, SFDPH would issue a Certificate of Completion. If a release were indicated, the SFPUC, or, other tank owner would be required to submit a corrective action plan, including a community health and safety plan, to SFDPH and the RWQCB, and remediation would be required in accordance with federal, state and local regulations. Alternatively, the tank could be abandoned in place if removal were infeasible. Implementation of the measures required in accordance with Article 21 of the *San Francisco Health Code* would ensure that hazardous materials impacts associated with encountering previously unidentified USTs would be *less than significant*.

Construction within contaminated materials. The proposed project would be subject to Article 22A of the *San Francisco Health Code*, also known as the Maher Ordinance, which is administered and overseen by the SFDPH. Accordingly, the project sponsor would be required to retain the services of a qualified professional to prepare a Phase I ESA; conduct soil and/or groundwater sampling and analysis, if warranted by the Phase I ESA and if the investigations already completed as described above do not completely address potential issues identified; and implement a SMP to remediate any site contamination in accordance with agreed upon protocols. Thus, the proposed project would not result in a significant hazard to the public or

environment from contaminated soil and/or groundwater and the proposed project would result in a *less-than-significant* impact related to the construction within contaminated materials.

Disposal of contaminated materials. As discussed above, a portion of the soil from the Central Reservoir site would be classified as a hazardous waste because of the soluble lead concentration in one composite soil sample. Further, if previously unidentified USTs are encountered, the tanks and associated soil would require off-site disposal. However, as the generator of the hazardous wastes, the project sponsor would be required to follow state and federal regulations for manifesting the wastes, using licensed waste haulers, and disposing the materials at a permitted disposal or recycling facility. With compliance with these regulatory requirements, impacts related to disposal of hazardous wastes would be *less than significant*.

As noted in Topic 14, "Geology and Soils," limited groundwater dewatering could be necessary during construction of the reservoir used during the treatment process and new recycled water treatment plant at the Oceanside WPCP. During construction of the proposed facility, groundwater produced by dewatering would be discharged to the combined sewer system in compliance with Article 4.1 of the *San Francisco Public Works Code* as supplemented by Order No. 158170. As discussed above, the groundwater quality meets the discharge limitations of Article 4.1 and Order No. 158170, and would therefore not require treatment other than to remove sediments. Impacts related to discharge of the groundwater produced during construction-related dewatering would be *less than significant* with compliance with the specified discharge limitations.

Mitigation: None required.

Impact HZ-3: Reconfiguration of the chemical building interior would not expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, PCBs, bis(2-ethylhexyl) phthalate (DEHP), and mercury, or result in a release of these materials into the environment during construction. (Less than Significant)

As described in the Project Description, the interior of the existing chemical building (Building 510) at the Oceanside WPCP would be reconfigured to house the chemical storage tanks and feed systems for the recycled water process. Constructed in 1992, it is unlikely that this building would include asbestos-containing materials. However, lead-based paint could have been used in the building because lead continued to be used in paints for industrial purposes after it was banned for residential uses in 1978. Other hazardous building materials that could be present include electrical equipment containing PCBs; fluorescent light ballasts containing PCBs or DEHP; and fluorescent light tubes containing mercury vapors. The pump station which would be expanded at the Central Reservoir site may also include these materials.

If these materials were present, workers and the public could be exposed to hazardous building materials if they were not abated prior to reconfiguration of the interior space. However, as discussed below, there is a well-established regulatory framework for the abatement of asbestos-containing materials, lead-based paint, and the other types of hazardous building materials that could be encountered during construction. Impacts related to exposure to these hazardous building materials would be less than significant with compliance with regulatory requirements as discussed below.

Asbestos-Containing Materials. Although it is unlikely that asbestos-containing materials would have been used in the construction of the chemical building, the SFPUC would conduct a hazardous building materials survey and would abate any asbestos-containing materials prior to reconfiguration activities in accordance with the following BAAQMD requirements.

Section 19827.5 of the *California Health and Safety Code* requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified of any demolition or renovation project that involves the removal of 100 square feet or more of asbestos-containing materials 10 days in advance of the work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/alterd including size, age, and prior use; the approximate amount of friable asbestos that would be removed or disturbed; the scheduled starting and completion dates of demolition or abatement; the nature of the planned work and methods to be employed; the procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. Approved methods for control of asbestos-containing materials during abatement include adequate wetting of all asbestos-containing materials and providing containment with a negative air pressure ventilation system to prevent migration of asbestos-containing materials. BAAQMD randomly inspects asbestos removal operations. In addition, BAAQMD will inspect any removal operation when a complaint has been received.

The local Cal/OSHA office must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in 8CCR1529 and 8CCR341.6 through 341.17 where there is asbestos-related work involving 100 square feet or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Pursuant to California law, the San Francisco Department of Building Inspection (DBI) would not issue the required permit until the applicant has complied with the notice and abatement requirements described above.

Accordingly, the SFPUC would ensure that the chemical building is surveyed for asbestos-containing materials prior to reconfiguring the interior space, and would provide BAAQMD with notification of the planned reconfiguration activities a minimum of 10 days prior to these activities. If asbestos-containing materials are identified, the SFPUC would retain a certified asbestos removal contractor to completely remove all asbestos-containing materials using BAAQMD-approved methods, and would also retain a licensed waste hauler to legally dispose of the removed materials. Implementation of the required procedures in accordance with the legal requirements described above, already established as a part of the permit review process, would ensure that any potential impacts due the presence of asbestos-containing materials in any of the areas to be reconfigured would be *less than significant*.

Lead-based Paint. 17 CCR Section 35033 defines lead-based paint as paint that contains 1.0 milligram of lead per square centimeter of paint, or 5,000 mg/kg of lead. Disturbance of building components that include lead-based paint during reconfiguration of the chemical building could result in exposure of workers and the public to lead.

However, the SFPUC would conduct a hazardous building materials survey prior to reconfiguration activities to determine the lead content of any paint that would be disturbed. If lead-based paint is identified, the reconfiguration activities would be subject to the Cal/OSHA Lead in Construction Standard (8 CCR Section 1532.1). This standard requires development and implementation of a lead compliance plan when materials containing lead would be disturbed during construction. The plan must describe activities that could emit lead, methods that will be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA would require 24-hour notification if more than 100 square feet of materials containing lead would be disturbed. Implementation of procedures required by the Lead in Construction Standard (8 CCR Section 1532.1) would ensure that potential impacts of disturbance of building components with lead-based paint would be *less than significant*.

Other Hazardous Building Materials. Other hazardous building materials that could be present within the portion of the chemical building that would be reconfigured include electrical transformers that could contain PCBs, fluorescent light ballasts that could contain PCBs or DEHP, and fluorescent light tubes that could contain mercury vapors.

Under the Toxic Substance Control Act, the U.S. EPA began to impose bans on PCB manufacturing and sales and on most PCB uses in 1978, however some electrical transformers still in use today use oils that contain PCBs. The Toxic Substance Control Act requires incineration or an alternative destruction method for oils containing PCB concentrations greater than 50 parts per million and requires that free liquids be drained from electrical equipment prior to disposal, and that the liquids are appropriately disposed of. In California, PCB wastes are regulated as hazardous waste if the PCB concentration exceeds 50 parts per million or the soluble concentration exceeds 5 parts per million as oily liquid.

Most fluorescent light ballasts manufactured before 1978 contain PCBs in their capacitor and potting material. Ballasts manufactured after January 1, 1978, do not contain PCBs and should be labeled as such on the ballast. Approved disposal methods for PCB-containing ballasts depend on the condition of the ballast and the PCB content of the potting material and capacitor oil. If the PCB concentration of the potting material is less than 50 parts per million (ppm) and the ballast contains a small, intact, non-leaking capacitor, the ballast may be disposed of at a municipal landfill. In general, all leaking ballasts and ballasts containing potting material with PCB concentrations greater than or equal to 50 ppm must be incinerated or destroyed by alternative methods, disposed of in a hazardous waste landfill, or decontaminated using approved methods.

Between 1979 and the early 1990s, DEHP was used in place of PCB as a dielectric fluid in some fluorescent light ballasts and other electrical equipment.¹⁰⁷ DEHP is classified as a probable human carcinogen by the

¹⁰⁷ Green Lights Recycling, Inc., "Ballasts Facts," available at www.greenlightsrecycling.com/ballast%20Facts.htm, June 16, 2014.

United States Department of Health and Human Services and as a hazardous substance by the U.S. EPA. Because of this, ballasts containing DEHP must be legally disposed of; ballast incineration or a combination of ballast recycling and incineration are recommended for complete destruction of DEHP.

Spent fluorescent lamps and tubes commonly contain mercury vapors and are considered a hazardous waste in California (22 CCR 66261.50). Regulations adopted in 2004 classified all fluorescent lamps and tubes in California as a hazardous waste because they contain mercury. Because they are considered a hazardous waste, all fluorescent lamps and tubes must be recycled or taken to a universal waste handler.

Because any electrical transformers that contain PCBs, fluorescent light ballasts that contain PCBs or DEHP, and fluorescent light tubes would be removed and disposed of in accordance with the established regulatory framework described above, impacts related to encountering these materials would be *less than significant*.

Mitigation: None required.

Impact HZ-4: Implementation of the proposed project would not result in adverse effects related to hazardous emissions or handling of acutely hazardous materials within one-quarter mile of an existing school. (Less than Significant)

There are many schools within one-quarter mile of the pipeline alignments including: Robert Louis Stevenson Elementary School (2051 34th Avenue); St. Gabriel Elementary School (2550 41st Avenue); St. Ignatius College Preparatory School (2001 37th Avenue); Lawton Elementary School (1570 31st Avenue); Star Light Christian Preschool (750 26th Avenue); Shalom School (862 28th Avenue); Lafayette Elementary School (4545 Anza Street); and Cabrillo Elementary School (735 24th Avenue).

The State of California defines extremely hazardous materials in Section 25532 (2)(g) of the Health and Safety Code. However, construction of the proposed project would use only common hazardous materials such as paints, solvents, cements, adhesives, and petroleum products (such as asphalt, oil, and fuel), and none of these materials is considered extremely hazardous. Further, operation of the new recycled water treatment facility would not involve the use of extremely hazardous materials. Therefore, there would be no impact associated with the use of extremely hazardous materials within one-quarter mile of a school.

Hazardous air emissions are toxic air contaminants (TACs) identified by the California Air Resources Board (CARB) and the BAAQMD. The project operation would not result in generation of substantial pollutant concentrations or otherwise result in air quality impacts. Impacts associated with TACs that may be emitted during construction of the project will be further addressed in the Air Quality section of the EIR for the proposed project. As only common hazardous materials would be used to construct the project and the project operation would not emit extremely hazardous materials, impacts associated with the hazardous emissions within one-quarter mile of a school would be *less than significant*.

Mitigation: None required.

Impact HZ-5: Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

Construction. The CCSF Emergency Response Plan¹⁰⁸ identifies primary evacuation routes in the project area. The proposed pipeline would parallel primary evacuation routes along 36th Avenue as well as Crossover Drive and 25th Avenue. The pipeline would also cross primary evacuation routes along Sloat Boulevard, Taraval Street, Noriega Street, Lincoln Way, Geary Boulevard, and California Street as well as several alternate evacuation routes. Project construction could interfere with implementation of the CCSF Emergency Response Plan if construction activities were to interfere with identified evacuation routes, otherwise restrict access for emergency response vehicles, or restrict access to critical facilities such as hospitals or fire stations. Pipeline construction could affect the availability of travel lanes when construction occurs within (see Section A.6.2, Construction), potentially requiring temporary partial and/or full road closures. Construction of the pipeline could also affect access to adjacent land uses by emergency service providers.

However, if construction of a pipeline segment were to potentially interfere with any nearby primary evacuation routes, numerous alternate parallel routes would be available, as pipeline construction would only occur within one city block at a time. Preparation of a Construction Management Plan is required as part of the SFMTA's Transportation Advisory Staff Committee process and would address localized construction effects (such as increased traffic and the need for coordination with emergency response providers) prior to construction to minimize construction-related disruptions. The construction management plan would be reviewed by the multi-agency Transportation Advisory Staff Committee. Due to the short duration and limited magnitude of traffic disruptions, and required coordination and review of the project's construction management plan, construction would not likely interfere with the CCSF Emergency Response Plan. Therefore, this potential impact would be *less than significant* during construction.

Operation. Project operations would involve routine operation and maintenance of the recycled water facilities at the Oceanside WPCP and in Golden Gate Park. The treatment plant would be staffed with up to 4 employees, and only infrequent visits would be required to maintain the storage reservoirs located in Golden Gate Park. Chemicals would be delivered occasionally, as needed, to the treatment facility at the Oceanside WPCP. However, the associated increase in vehicular traffic would be minimal and would not increase such that it could impair or interfere with an adopted emergency response or evacuation plan. Therefore, this potential impact would be *less than significant* during operation.

Mitigation: None required.

¹⁰⁸ City and County of San Francisco, Emergency Response Plan, ESF#1: Transportation Annex. Available online at <http://www.sfdem.org/modules/ShowDocument.aspx?documentid=838> accessed February 27, 2014.

Impact HZ-6: The project would not expose people or structures to a significant risk of loss, injury, or death involving fires. (No Impact)

According to CAL FIRE fire hazard mapping, the project area abuts moderate fire hazard severity zones at Lincoln Park and the Presidio, but is not within areas designated as very high or high fire hazard zones.¹⁰⁹ The project area is an urban area that is serviced by the San Francisco Fire Department. Therefore, there would be *no impact*.

Mitigation: None required.

Impact C-HZ-1: The proposed project would not have a significant cumulative impact related to hazardous materials. (Less than Significant)

Hazardous materials impacts related to the project could result from use of hazardous materials, conducting construction activities within potentially contaminated soil and groundwater, and demolition of structures that contain hazardous building materials. These impacts would be primarily restricted to the project area and immediate vicinity; therefore, the geographic scope for cumulative impacts related to hazards includes the project area and immediate vicinity.

Use of Hazardous Materials. As discussed in Impact HZ-1, the proposed project could involve an increase in the use of hazardous materials and generation of hazardous wastes during operation. Similarly, many of the cumulative projects could also include an increase in the use of hazardous materials and generation of hazardous wastes. However, the proposed project and all reasonably foreseeable cumulative projects would comply with Articles 21, 21A, and 22 of the *San Francisco Health Code*, which would minimize potential exposure of site personnel and the public to any accidental releases of hazardous materials or waste and would also protect against potential environmental contamination. With implementation of these regulatory requirements, cumulative impacts related to the use of hazardous materials and generation of hazardous wastes would be *less than significant*.

Exposure to Hazardous Materials in Soil and Groundwater. There is a high potential for soil contamination in the project area based on historic land uses as well as the presence of leaking underground storage tanks and permitted USTs. As discussed in Impact HZ-2, the environmental investigation of the Central Reservoir site also found that a portion of the soil excavated could be characterized as a hazardous waste and would require disposal in compliance with California hazardous waste disposal laws. Although construction of the cumulative, reasonably foreseeable future projects (such as the San Francisco Groundwater Supply Project) could also take place in contaminated areas, a potentially significant cumulative impact, the project's contribution to this impact would not be cumulatively considerable (*less than significant*) with compliance with California hazardous waste disposal laws, and implementation of the Maher Program requirements, including preparation of a Phase I ESA and implementation of a SMP, as necessary.

¹⁰⁹ Cal Fire, Draft Fire Hazard Severity Zones in LRA, San Francisco County. October 5, 2007.

In addition, the proposed project and many of the cumulative projects could also encounter previously unidentified USTs. However, construction activities under the proposed project and for cumulative, reasonably foreseeable future projects would be subject to the regulatory requirements discussed in Impact HZ-2, including Articles 21, 21A, and 22A of the *San Francisco Health Code* and the Local Oversight Program. Therefore, cumulative impacts related to encountering previously unidentified USTs would be *less than significant*.

Hazardous Building Materials. As discussed in Impact HZ-3, hazardous building materials could be encountered during reconfiguration of the existing chemical facility at the Oceanside WPCP or expansion of the pump station at the Central Reservoir site. However, impacts associated with exposure to hazardous building materials are very localized, none of the cumulative, reasonably foreseeable future projects would be constructed at the Oceanside WPCP or Central Reservoir site, and all hazardous building materials at the site would be handled in accordance with regulatory requirements that would assure safe handling and disposal, resulting in less than significant project impacts. Therefore, cumulative impacts related to exposure to hazardous building materials would be *less than significant*.

Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan. As discussed in Impact HZ-4, the proposed project would include construction along or crossing several primary evacuation routes identified in the CCSF Emergency Response Plan. Some of the cumulative, reasonably foreseeable future projects could also affect the same or nearby evacuation routes, a potentially significant cumulative impact. However, implementation of the Construction Management Plan as part of the project, would include coordination with other nearby projects to minimize construction-related disruptions. Therefore, the project’s contribution to this cumulative impact would not be cumulatively considerable (*less than significant*).

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
17. MINERAL AND ENERGY RESOURCES – Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project is mapped by the California Geologic Survey as MRZ-1, MRZ-3a, or MRZ-4, indicating that substantial mineral resources do not occur at the site.¹¹⁰ Further, there are no mines, mineral plants, oil, gas, or geothermal wells located within the project area.^{111,112} Therefore, the proposed project would not result in the loss of availability of a known mineral resource that is of value to the region. It is not an important mineral resource recovery site. The *San Francisco General Plan* does not identify any areas of important mineral resource recovery sites in San Francisco. For these reasons, Topics 17(a) and 17(b) are *not applicable* to the project.

Impact ME-1: The proposed project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. (Less than Significant)

The proposed project would reduce CCSF's reliance on potable water for nonpotable uses, through the treatment of secondary effluent produced by the Oceanside WPCP. Although treatment and the use of a pump station to convey recycled water would consume incrementally more energy than under existing conditions, these expanded uses would not result in the use of large amounts of fuel, water, or energy in a wasteful manner because of the project design elements described in Section A.6.3:

- Fuel Efficiency:
 - SFPUC diesel vehicles used during construction and operation of the project would use biodiesel fuel.
 - Operations and maintenance activities would be performed by SFPUC staff located at existing and proposed SFPUC facilities, so existing SFPUC fleet vehicles may be utilized. If any new SFPUC fleet vehicles are required for project operations and maintenance activities, new purchases would be consistent with vehicle efficiency requirements.
 - All contracts issued for construction of the project would incorporate these biodiesel and best available control technology requirements into the contract specifications. SFPUC adheres to these requirements for vehicles and equipment that fall under this category; therefore, all operations and maintenance activities would also comply with this ordinance.
 - Bicycle storage would be provided for 5% of the building addition users used at building peak period.
- Water:
 - Toilets and urinals in the new recycled water treatment building would utilize recycled water and would comply with the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code.

¹¹⁰ California Department of Conservation, Division of Mines and Geology (CDMG). Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area, Special Report 145146, Part II, 1987.

¹¹¹ California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Online Mapping System. Available online at <http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx>. Accessed June 15, 2014.

¹¹² U.S. Geological Survey (USGS), Active Mines and Mineral Plants in the U.S., 2003. Available online at <http://mrdata.usgs.gov/mineral-resources/active-mines.html>. Accessed October 21, 2013.

- Energy:
 - To meet required minimum energy efficiency requirements, the project's facilities would be constructed in compliance with California's Energy Efficiency Standards specified in the California Code of Regulations, Title 24, Part 6.
 - All facilities would utilize renewable energy in the form of hydroelectric power from the Hetch Hetchy Regional Water System for project operations under normal conditions.
 - All lighting would comply with the 2013 Title 24 Energy Conservation Standard. Furthermore, all outdoor lighting would be L.E.D.-type.

Under normal conditions, all facilities would utilize renewable energy in the form of hydroelectric power from the Hetch Hetchy Regional Water System. The precise amount of petroleum fuel demand that would be required to construct the project is uncertain; however, it is anticipated that gasoline and diesel would be used for construction equipment and worker and haul vehicles comparable to similar construction projects and that this consumption would not have a measurable effect on local and regional energy supplies. The project demand would be typical for a development of this scope and nature and would comply with current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection. In addition, the project would be required to comply with the San Francisco Green Building Ordinance (Ordinance No. 180-08), which includes energy efficiency requirements. Therefore, the energy demand associated with the proposed project would result in a *less-than-significant* impact.

Mitigation: None required.

Impact C-ME: The proposed project would not have significant cumulative mineral and energy impacts. (Less than Significant)

As stated above, the project site is not designated as a statewide-, regionally-, or locally-important mineral resource recovery site, and the project would result in no impact on mineral resources. Therefore, there would be no cumulative impact on mineral resources.

The geographic scope for potential cumulative impacts to energy resources encompasses projects within mineral extraction zones or locally-important mineral resource recovery sites in the vicinity of project facilities.

Similar to proposed project, other projects within the vicinity or the region would require the use of fuel, water, or energy. The project and any other regional projects would be required to comply with the California Green Building Standards Code, at a minimum, and would also be subject to local green building ordinances (which must be as stringent as the state requirements and are often more stringent). Because these building codes encourage sustainable construction practices related to planning and design, energy efficiency, and water efficiency and conservation, it is expected that energy consumption would be reduced. Furthermore, the proposed project would produce and distribute tertiary treated recycled water for irrigation, further offsetting the CCSF reliance on potable water for nonpotable uses.

Therefore, cumulative impacts related to wasteful use of fuel, water or energy resources would be *less than significant*.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
18. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.— Would the project					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is located within a developed urban area in San Francisco. The California Department of Conservation’s Important Farmland Maps for the Bay Area Region indicate that the project is in an Urban and Built-up environment, defined as land that is used for “...residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures”.¹¹³ The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest, or timberlands; does not support agricultural or timber uses; is not zoned for

¹¹³ California Department of Conservation, Division of Land Resource Protection (DLRP), Bay Area Region Important Farmland 2010, published July 2013. Available online at ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/regional/2010/bay_area_fmmp2010.pdf Accessed June 15, 2014.

agricultural or timber uses;¹¹⁴ and is not under a Williamson Act contract.^{115,116} Therefore, agricultural and forest resource Topics 18.(a) through 18.(e) are *not applicable* to the project.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
19. MANDATORY FINDINGS OF SIGNIFICANCE— Would the project:					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that would be 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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project could result in adverse impacts to the environment with respect to cultural resources, transportation and circulation, noise, air quality, and hydrology and water quality. These topics will be addressed in the EIR. In addition, as a water supply improvement project in the WSIP, this proposed project would be a contributing factor in the growth-inducement potential of the overall WSIP. Growth inducement of the proposed project within the context of the WSIP and the regional water system will be discussed in the EIR, including a discussion of indirect effects of the project on population and housing growth due to growth inducement potential, and secondary effects of growth.

Mitigation measures have been included in this Initial Study to reduce potential impacts related to biological resources to a less-than-significant level. Regarding the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels,

¹¹⁴ San Francisco Planning Department, Zoning Map. Available online at <http://www.sf-planning.org/index.aspx?page=1569>. Accessed October 11, 2013.

¹¹⁵ California Department of Conservation, Division of Land Resource Protection (DLRP), Bay Area Region Important Farmland 2010, published July 2013. Available online at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/regional/2010/bay_area_fmmp2010.pdf. Accessed June 15, 2014.

¹¹⁶ San Francisco County is not subject to the Williamson Act, meaning that there are no lands where potential uses are restricted to either agriculture or other agriculture-compatible open-space uses.

threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, project construction activities could substantially affect nesting birds, sensitive bat species, California red-legged frog, and western pond turtle. Mitigation Measures M-BI-1a through M-BI-1c include avoidance and minimization measure that would reduce potential impacts to these species to a *less-than-significant* level.

The proposed project would not have cumulatively considerable impacts on the resources that are fully analyzed in this Initial Study, as discussed under each applicable environmental topic.

Potential adverse effects on human beings have been considered as a part of the analysis of individual environmental topics included in this Initial Study. The individual components of the project would not result in environmental impacts that would cause substantial adverse effects on humans.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

Mitigation Measure M-BI-1a: Nesting Bird Protection Measures.

Nesting birds and their nests shall be protected during construction by use of the following:

- Conducting vegetation and tree removal and construction activities outside the bird nesting season (February 1 to August 30), to the extent feasible.
- If construction occurs during the bird nesting season, a qualified wildlife biologist would conduct preconstruction surveys within seven days of the start of construction or after any construction breaks of 14 days or more to identify active nests. A nest is defined to be active for raptors if there is a pair of raptors displaying reproductive behavior (i.e., courting) at the nest and/or if the nest contains eggs or chicks. Surveys shall be performed for the project site and suitable habitat within 250 feet of the project site in order to locate any active passerine nests and within 500 feet of the project site to the extent access is granted by other property owners to locate any active raptor (birds of prey) nests or double-crested cormorant or heron rookeries.
- If active nests are located during the preconstruction bird nesting survey, the wildlife biologist shall evaluate if the schedule of construction activities could affect the active nest and the following measures shall be implemented based on their determination:
 - If construction is not likely to affect the active nest, it may proceed without restriction; however, a biologist shall regularly monitor the nest to confirm there is no adverse effect and may revise their determination at any time during the nesting season. In this case, the following measure would apply.
 - If construction may affect the active nest, the biologist shall establish a no disturbance buffer. The biologist shall determine the appropriate buffer taking into account the species involved, the presence of any obstruction, such as a building, is within line-of-sight between the nest and construction, and the level of project and ambient activity (i.e. adjacent to a road or active trail). No disturbance buffers for passerines typically vary from 25 feet and greater and for raptors from

300 feet and greater. For bird species that are federally and/or state-listed sensitive species (i.e., threatened, endangered, fully protected, species of special concern), an SFPUC representative, supported by the wildlife biologist, shall consult with the USFWS and/or CDFW regarding nest buffers.

- Removing inactive passerine nests may occur at any time. Inactive raptor nests shall not be removed unless approved by the USFWS and/or CDFW.
- Removing or relocating active nests shall be coordinated by the SFPUC representative with the USFWS/and or CDFW, as appropriate, given the nests that are found on the site.
- Any birds that begin nesting within the project area and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases.

Mitigation Measure M-BI-1b: Avoidance and Minimization Measures for Special-Status Bats.

In coordination with the SFPUC, a qualified wildlife biologist shall conduct preconstruction special-status bat surveys before trees and structures that are suitable for bat roosting (i.e., excluding temporary trailers, retaining walls, etc.) are removed. If active day or night roosts are found, the wildlife biologist shall take actions to make such roosts unsuitable habitat before trees and structures are removed. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. Bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary.

Mitigation Measure M-BI-1c: Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle.

During construction on Route 35/Skyline Boulevard, at the Central Pump Station well facility site, on the pipeline route within Golden Park near aquatic habitat, and during use of the Harding Road staging area, the SFPUC shall ensure a biological monitor is present during installation of exclusion fencing and initial vegetation clearing and/or grading, and shall implement the following measures:

- Within one week before work at these sites begins (including demolition and vegetation removal), a qualified biologist shall supervise the installation of exclusion fencing along the boundaries of the work area, as deemed necessary by the biologist, to prevent California red-legged frogs and western pond turtles from entering the work area. The construction contractor shall install suitable fencing with a minimum height of 3 feet above ground surface with an additional 4-6 inches of fence material buried such that species cannot crawl under the fence.
- A qualified biologist shall conduct environmental awareness training in person or via video for all construction workers prior to construction workers beginning their work efforts on the project. The training shall include information on species identification, avoidance measures to be implemented by the project, and the regulatory requirements and penalties for noncompliance. If necessary, the content shall vary according to specific construction areas (e.g., workers on city streets will receive training on nesting birds but not on California red-legged frog identification).
- A qualified biologist shall survey the project area within 48 hours before the onset of initial ground-disturbing activities and shall be present during initial vegetation clearing and ground-disturbing

activities. The biological monitor shall monitor the exclusion fencing weekly to confirm proper maintenance and inspect for frogs and turtles. If California red-legged frogs or western pond turtles are found, the SFPUC shall halt construction in the vicinity that poses a threat to the individual as determined by the qualified biologist. If possible, the individual shall be allowed to move out of the project area of its own volition (i.e., if it is near the exclusion fence that can be temporarily removed to let it pass). For western pond turtles, a qualified biologist shall relocate turtles to the nearest suitable habitat. For California red-legged frog, a SFPUC representative shall contact the USFWS and/or CDFW for instructions on how to proceed. Construction shall resume after the individual is out of harm's way.

- During project activities, excavations deeper than 6 inches shall be covered overnight or an escape ramp of earth or a wooden plank at a 3:1 rise shall be installed; openings such as pipes where California red legged frogs or western pond turtles might seek refuge shall be covered when not in use; and all trash that may attract predators or hide California red-legged frogs or western pond turtles shall be properly contained on a daily basis, removed from the worksite, and disposed of regularly. Following construction, the construction contractor shall remove all trash and construction debris from work areas.

G. DETERMINATION

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, no further environmental documentation is required.

DATE

July 16, 2014 

Sarah Jones, Environmental Review Officer
for
John Rahaim, Director of Planning

H. INITIAL STUDY PREPARERS

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APPENDIX 1

Special-status Species with Potential to Occur in SFPUC Recycled Water Project Area

**TABLE A1-1
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA**

Common Name <i>Scientific Name</i>	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Birds			
Cooper's hawk (<i>Accipiter cooperii</i>)	CDFW §3503.5	Forests, woodlands, and fields. Will also inhabit trees in suburban areas in parks and neighborhoods. Typically nests in riparian growths of deciduous trees and live oak woodlands. Becoming more common as an urban breeder.	Moderate. Large trees in project area, including eucalyptus and Monterey cypress, around Lake Merced and Central Pump Station could support nests for this species. May be seen flying overhead or perched near Oceanside RWTP, although probably not nesting there. Foraging is known at Lake Merced, though breeding remains undocumented.
Great egret (<i>Ardea alba</i>)	--/*/--	Colonial nester. Rookery sites located near marshes, tidal flats, margins of rivers and lakes.	Moderate. No suitable habitat present at facility sites, but this bird has been documented around Lake Merced area, although not within the past year (eBird, 2014).
Great blue heron (<i>Ardea herodias</i>)	--/*/--	Shallow estuaries and fresh and saline emergent wetlands.	High. No suitable habitat at facility sites, but is known to breed at Lake Merced.
Great horned owl (<i>Bubo virginianus</i>)	CDFW §3503.5	Often uses abandoned nests of corvids or squirrels; nests in large oaks, conifers, eucalyptus.	Moderate. Large trees in project area, including eucalyptus and Monterey cypress around Lake Merced and at Central Pump Station could support nests for this species.
Short-eared owl (<i>Asio flammeus</i>)	CSC	Freshwater and saltwater swamplands, meadows, tall grasses needed for nesting.	Low. No suitable habitat present in project area.
Burrowing owl (<i>Athene cunicularia</i>)	CSC	Annual grasslands with low-growing vegetation. Requires small mammal burrows for nesting.	Low. No suitable habitat present in project area.
Red-tailed hawk (<i>Buteo jamaicensis</i>)	CDFW §3503.5	Desert, scrublands, grasslands, roadsides, fields and pastures. Commonly found at field edges and perched on fences, poles, and trees. Inhabits almost any open habitat, including grassland and urbanized areas.	Moderate. Common raptor. Open habitat exists on and near Central Pump Station and Lake Merced. Large trees in project area, including eucalyptus and Monterey cypress around Lake Merced and at Central Pump Station could support nests for this species. May be seen flying overhead or perched near Oceanside RWTP, although probably not nesting there.
Red-shouldered hawk (<i>Buteo lineatus</i>)	CDFW §3503.5	Riparian and oak woodlands. Also found in eucalyptus groves and sometimes developed/ suburban areas with mosaic of buildings and woodlands. Forages along edges of marshes and grasslands; nests in mature trees in a variety of habitats.	Moderate. Common raptor. Large trees in project area, including eucalyptus and Monterey cypress around Lake Merced and at Central Pump Station could support nests for this species. May be seen flying overhead or perched near Oceanside RWTP, although probably not nesting there.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT/CSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Low. No suitable habitat at facility sites. Nearby Fort Funston/Ocean Beach provides nesting habitat. However, the park allows unleashed dogs and this species is particularly sensitive to disturbance.
Northern harrier (<i>Circus cyaneus</i>)	CDFW §3503.5	Nests in salt or freshwater wetlands, forages over wetlands, annual grasslands.	Moderate. No suitable habitat at facility sites. Freshwater wetlands of Lake Merced may provide nesting habitat. Although there are no documented CNDDDB occurrences, it has been documented by local birders (eBird, 2014).

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Birds (cont.)			
Snowy egret (<i>Egretta thula</i>)	--*/--	Colonial nester. Nest sites typically located in protected beds of dense tules. Rookery sites located nearby foraging areas (marshes, meadows, borders of lakes).	Moderate. No suitable habitat at facility sites. This bird has been documented around Lake Merced area, although not within the past year (eBird, 2014)
White-tailed kite (<i>Elanus leucurus</i>)	CDFW §3503.5 FP	Foothills and valleys with oaks, rivers, and marshes; open woodland, desert grassland.	Moderate. No suitable habitat at facility sites. Lake Merced offers freshwater marsh habitat and Golden Gate Park offers open woodland-like habitat that this species is associated with. Species has been documented at Lake Merced and Golden Gate Park.
Merlin (<i>Falco columbarius</i>)	CDFW §3503.5	Open woodland, seacoast, tidal estuaries, and savannas. Increasingly are seen in towns and cities hunting for small avian prey species. Reuses old nests of crows, ravens, hawks.	Moderate. No suitable habitat at facility sites. Open habitat of Lake Merced and Golden Gate Park provides suitable habitat for this species. Likely to be seen foraging for small birds, and could potentially nest at Lake Merced and Golden Gate Park. Species has been recently documented at Lake Merced and Golden Gate Park (eBird, 2014).
American kestrel (<i>Falco sparverius</i>)	CDFW §3503.5	Open areas such as meadows, grasslands, and open woodlands. Also utilize human modified habitat such as parks and fields. Primarily a cavity nester.	Low to moderate. Large trees in project area, including eucalyptus and Monterey cypress around Lake Merced and at Central Pump Station could support nests for this species.
Salt-marsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	FSC/CSC/--	Inhabits tidal salt and brackish marshes in winter, but breeds in freshwater brackish marshes and riparian woodlands during spring to early summer.	High. No suitable habitat at facility sites. This species is known to breed in the freshwater marshes at Lake Merced.
Caspian tern (<i>Hydroprogne caspia</i>)	--*/--	Colonial nester on sandy or gravelly beaches on coast and inland. Roosts on isolated spits of land, and found along rivers and the coast.	Moderate. No suitable habitat at facility sites. This species has been documented around North, East, and South Lake Merced, although not within the past year (eBird, 2014).
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	--/CT/--	Tidally influenced, heavily vegetated, high-elevation marshlands.	Low. No suitable habitat at facility sites. Historical occurrence at Lake Merced from 1937. Currently no suitable habitat present in project area.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	--/CSC/--	Salt marshes of eastern and south San Francisco Bay.	Low. Suitable habitat not present in project area and species range is outside of project area.
San Pablo song sparrow (<i>Melospiza melodia samuelis</i>)	--/CSC/--	Salt marshes of North San Francisco Bay and San Pablo Bay.	Low. Suitable habitat not present at facility sites or in project area. Species range is outside of project area.
Black-crowned night heron (<i>Nycticorax nycticorax</i>)	--*/--	Lowland and foothill areas. Nests in dense emergent wetlands and dense-foliated trees.	High. No suitable habitat at facility sites. Locally uncommon, but may breed at Lake Merced. Observed during biological survey in wetland bordering North Lake Merced.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Birds (cont.)			
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	--/*/-- (rookery site) WL	Colonial nester on coastal cliffs, offshore islands, & along lake margins in the interior of the state. Nests along coast on isolated islands or in trees along lake margins.	High. No suitable habitat at facility sites. Large nesting colonies are present at Lake Merced. Known to nest on the west side of South Lake near San Francisco Police Department Firing Range.
California clapper rail (<i>Rallus longirostris obsoletus</i>)	FE/CE/--	Salt marsh wetlands along the San Francisco Bay.	Low. Suitable habitat not present in project area.
Bank swallow (<i>Riparia riparia</i>)	--/CT	Colonial nester. Digs nesting hole in vertical banks/cliffs near streams, rivers, lakes, and ocean	High. No suitable habitat at facility sites. Known to nest in sand dunes at Fort Funston and forage over Lake Merced.
California least tern (<i>Sternula antillarum browni</i>)	FE/CE	Colonial nester along sandy beaches, alkali flats, or paved areas.	Low. No suitable habitat at facility sites. Nearby Fort Funston provides nesting habitat. However, the park allows unleashed dogs and this species is particularly sensitive to disturbance.
Yellow-headed blackbird (<i>Xanthocephalus xanthocephalus</i>)	--/CSC/--	Marsh, swamp, and wetland. Nests in freshwater emergent wetlands with dense vegetation, usually bordering lakes or ponds.	Moderate. No suitable habitat at facility sites. Freshwater wetlands along margins of Lake Merced provide nesting habitat for this species.
Amphibians			
California tiger salamander (<i>Ambystoma californiense</i>)	FT/CT/--	Vernal or temporary pools in annual grasslands, or open stages of woodlands. Typically adults use mammal burrows.	Low. No suitable habitat at facility sites or in project area.
Foothill yellow-legged frog (<i>Rana boylei</i>)	--/CSC/--	Small, permanent foothill streams >200 m elevation with rocky substrate, open and sunny banks; rivers; and other permanent water sources.	Low. No suitable habitat at facility sites or in project area.
California red-legged frog (<i>Rana draytonii</i>)	FT/ CSC	Streams, freshwater pools, and ponds with overhanging vegetation. Also found in woods adjacent to streams. Requires permanent or ephemeral water sources such as reservoirs and slow moving streams and needs pools of >0.5 m depth for breeding.	Low. No suitable aquatic habitat present at project facility sites. Potential habitat is present nearby in ponds in Golden Gate Park. Several recent CNDDDB records for this species in Golden Gate Park, including a 2005 record at Strybing Arboretum, approximately 0.5 mile east of the Central Pump Station well facility (CDFG, 2011). Historically present at Lake Merced (SFRPD, 2006) but currently presumed extirpated from this area (Jones and Stokes, 2007; San Francisco Planning Department, 2011).
Reptiles			
Western pond turtle (<i>Emys marmorata</i>)	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation <6,000' in elevation. Require basking sites and upland habitat for egg laying (sandy banks and open, grassy fields)	High. No suitable habitat at facility sites. Known to use Lake Merced (SFRPD, 2006; San Francisco Planning Department, 2011), and species may occur in nearby man-made ponds in Golden Gate Park. Basking habitat is present in riprap, matted bulrush, abandoned piers, and wood debris; limited upland breeding habitat has been noted.
Alameda whipsnake (<i>Masticophis lateralis euryxanthus</i>)	FT/CT/--	Chaparral and scrub habitat, and will also occupy adjacent grasslands, oak savanna and woodland habitats.	Low. No suitable habitat present in at facility sites or in project area.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Reptiles (cont.)			
San Francisco garter snake (<i>Thamnophis sirtalis tetrataenia</i>)	FE/CE/-- CFP	Densely vegetated ponds and slow streams with emergent vegetation near open hillsides with abundant small mammal burrows.	Low. No suitable habitat present in at facility sites. Potentially suitable habitat present at Lake Merced but species not documented at this area.
Mammals			
Pallid bat (<i>Antrozous pallidus</i>)	--/CSC/--	Roosts in caves, old buildings, and under bark. Forages in open lowland areas, and forms large maternity colonies in the spring. Very sensitive to human disturbance.	Low. No suitable habitat present in at facility sites. Potential roosting habitat is available in buildings and large-diameter trees in Golden Gate Park and Lake Merced, but this species was not detected during recent surveys in San Francisco parks (Krauel, 2009). Also unlikely to occur in project area given high levels of human activity.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	--/CSC/--	Roosts in caves, buildings, bridges, rock crevices, and hollow trees. Very sensitive to human disturbance.	Low. No suitable habitat present in at facility sites. While roosting habitat is available in buildings in Golden Gate Park and Lake Merced, the species was not detected during recent surveys in San Francisco parks (Krauel, 2009). Also unlikely to occur in project area given high levels of human activity.
Southern sea otter	FT/--/-- CFP	Nearshore marine habitat from Ano Nuevo to Point Sal (Santa Barbara County).	Low. Suitable habitat not present at facility sites or in project area.
Silver-haired bat (<i>Lasionycteris noctivagans</i>)	WBWG Medium	Coastal and montane forest. Roosts in hollow trees, and feeds over streams and ponds.	Low. Suitable habitat not present at facility sites or in project area.
Western red bat (<i>Lasiurus blossevillii</i>)	--/CSC/--	Roosts primarily in tree or shrub foliage, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Moderate. Roosting habitat available in trees/shrub foliage at Lake Merced and at Central Pump Station. In recent surveys, this species was one of the most commonly encountered bat species in San Francisco (Krauel, 2009) and was found in parks containing water bodies. May also be present at Oceanside RWTP in dense willow stands with open areas below for foraging.
Hoary bat (<i>Lasiurus cinereus</i>)	WBWG Medium	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for foraging. Roosts in dense foliage of medium to large trees. Feeds primarily on moths; requires water.	Moderate. Potential roosting habitat is available in large-diameter trees in Golden Gate Park at Central Pump Station and at Lake Merced; Lake Merced and small ponds in Golden Gate Park also provide source of water for feeding, but this species was not detected during recent surveys in San Francisco parks (Krauel, 2009).
San Pablo vole (<i>Microtus californicus sanpabloensis</i>)	--/CSC/--	Salt marshes of San Pablo Creek, and south shore of San Pablo Bay.	Low. No suitable habitat in project area, and project area is outside of species range.
Fringed myotis (<i>Myotis thysanodes</i>)	WBWG High	Pinyon juniper, valley and foothill grassland. Uses caves, mines, and buildings for maternity colonies and roosts.	Low. Suitable habitat not present in project area.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Mammals (cont.)			
Yuma myotis (<i>Myotis yumanensis</i>)	--/*/--	Found in open forests and woodlands with sources of water over which to feed. Also utilizes buildings and bridges.	Moderate. Roosting habitat is available in tree/shrub foliage at Central Pump Station, at Lake Merced, and at Oceanside RWTP. Lake Merced and small ponds in Golden Gate Park provide source of water for feeding. In recent surveys, this species was one of the most commonly encountered bat species in San Francisco (Krauel, 2009), especially in parks with water bodies such as lakes.
San Francisco dusky-footed woodrat (<i>Neotoma fuscipes annectens</i>)	--/CSC/--	Forest habitat with dense understory.	Low. Suitable habitat not present at facility sites or in project area.
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	--/CSC/--	Arid regions of southern California. Requires cliffs and rocky areas for roosting	Low. Species range is outside of project area, and there is no suitable habitat.
Salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE/CE/--	Saline emergent wetlands of San Francisco Bay, usually in association with pickleweed.	Low. Suitable habitat not present at facility sites or in project area.
Angel Island mole (<i>Scapanus latimanus insularis</i>)	--/*/--	Friable soils. Only known to occur on Angel Island.	Low. No suitable habitat at facility sites or in project area. Species range occurs outside of project area.
Alameda Island mole (<i>Scapanus latimanus parvus</i>)	--/CSC/--	Annual and perennial grasslands. Only known to occur on Alameda Island.	Low. No suitable habitat in project area and species range occurs outside of project area.
Salt-marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	--/CSC/--	Salt marshes of South San Francisco Bay.	Low. No suitable habitat in project area and species range occurs outside of project area.
American badger <i>Taxidea taxus</i>	--/CSC/--	Open grasslands with loose, friable soils.	Low. Suitable habitat not present in project area.
Point Reyes jumping mouse (<i>Zapus trinotatus orarius</i>)	--/CSC/--	Bunch grass marshes in uplands of Point Reyes. Also associated with coastal scrub, grasslands, and meadows.	Low. Species range occurs outside of project area.
Invertebrates			
Opler's longhorn moth (<i>Adela oplerella</i>)	--/*/--	Associated with serpentine grasslands, larvae feed on a native forb.	Low. Suitable habitat not present at project facility sites or in project area.
incredible harvestman (<i>Banksula incredula</i>)	--/*/--	Franciscan sandstone talus slope.	Low. Specific habitat requires not present at facility sites or in project area.
Tomales isopod (<i>Caecidotea tomalensis</i>)	--/*/--	Still-to-slow moving water in vegetated ponds. Preferably spring-fed	Low. Habitat not present at facility sites. Could potentially occur at Lake Merced or small ponds in Golden Gate Park.
San Bruno elfin butterfly (<i>Callophrys mossil bayensis</i>)	FE/--/--	Coastal, mountainous areas with grass. Found mainly around San Bruno Mountain.	Low. Species is not known to occur beyond San Bruno Mountain.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name <i>Scientific Name</i>	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Invertebrates (cont.)			
Sandy beach tiger beetle (<i>Cicindela hirticollis gravida</i>)	FSC/*	Sandy areas around water; larva live in burrows in sand along sea beaches, creeks, seepages, and lake shores, and prefer moist sand not affected by wave action.	Low. No suitable habitat present at facility sites, but potentially suitable habitat present at Lake Merced, but species not documented to occur there.
Monarch butterfly (<i>Danaus plexippus</i>)	--/*/--	Winter roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low. Several records of this species exist in Golden Gate Park, but none around Lake Merced or Oceanside RWTP. Potential wintering sites of eucalyptus stands occur at Central Pump Station and along periphery of Lake Merced, but they may not be wind-protected.
Stage's dufourine bee (<i>Dufourea stagei</i>)	--/*/--	Species is a ground-nesting bee.	Low. Potentially suitable habitat is present at Lake Merced, RWTP, and Central Pump Station; known species range is south of the project area (only known to occur at San Bruno Mountain and in Santa Cruz County).
Bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>)	FT/--/--	Native grasslands with serpentine soil.	Low. No suitable habitat present at facility sites or in project area.
Bridge's coast range shoulderband (<i>Helminthoglypta nickliniana bridgesi</i>)	--/*/--	Open hillsides of Alameda and Contra Costa County.	Low. No suitable habitat present at facility sites or in project area. Species' range does not include project area.
Leech's skyline diving beetle (<i>Hydroporus leechi</i>)	--/*/--	Found in freshwater ponds, shallow water of streams marshes and lakes.	Low. No suitable habitat present at facility sites. Could potentially be found in shallow areas of Lake Merced and small ponds of Golden Gate Park and, although there are no CNDDDB occurrences.
San Francisco forktail damselfly (<i>Ischnura gemina</i>)	--/*/--	Small, marshy ponds and ditches with emergent or floating vegetation.	Low. Suitable habitat not present at facility sites, but this species could potentially be found in small ponds of Golden Gate Park.
Bumblebee scarab beetle (<i>Lichnanthe ursina</i>)	FSC/--/--	Inhabits coastal sand dunes. Usually flies close to sand surface near the crest of the dunes.	Low. No suitable habitat present at facility sites. CNDDDB records of this species along Ocean Beach are historic. However species could occur along Ocean Beach west of Oceanside RWTP.
Tiburon micro-blind harvestman (<i>Microcina tiburona</i>)	--/*/--	Hilly grasslands in serpentine areas.	Low. No suitable habitat present at facility sites or in project area.
Mission blue butterfly (<i>Plebejus icarioides missionensis</i>)	FE/--/--	Grassland with <i>Lupinus albifrons</i> , <i>L. Formosa</i> , and <i>L. varicolor</i> .	Low. Remaining populations of this species occur in Marin Headlands, Skyline ridges, and San Bruno Mountain. All of these locations area far from the project area.
Robust walker (<i>Pomatiopsis binneyi</i>)	--/*/--	Freshwater.	Low. No suitable habitat at facility sites, but could be present at Lake Merced and small ponds in Golden Gate Park.
Callippe silverspot butterfly (<i>Speyeria callippe callippe</i>)	FE/--/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant.	Low. Species is only known from San Bruno Mountain, and project area is outside of this location.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Invertebrates (cont.)			
Myrtle's silverspot butterfly (<i>Speyeria zerene myrtleae</i>)	FE/--/--	Foggy, coastal dunes of Point Reyes Peninsula	Low. Species range and specific habitat requirements occur outside of project area.
San Francisco Bay Area leaf-cutter bee (<i>Trachusa gummifera</i>)	--/*/--	Inhabits soft, rotted wood.	Moderate. Could potentially be present at RWTP and Central Pump Station, as well as at Lake Merced and woody areas around small ponds in Golden Gate Park.
California brackishwater snail (<i>Tyonia imitador</i>)	--/*/--	Coastal lagoons, estuaries, salt marshes	Low. No suitable habitat present at facility sites or in project area.
Marin hesperian (<i>Vespericola marinensis</i>)	--/*/--	Coastal brushfield and chaparral vegetation in Marin County.	Low. Species range and specific habitat requirements occur outside of project area.
Fish			
Sacramento perch (<i>Archoplites interruptus</i>)	--/CSC/--	Warm water. Aquatic vegetation required by young. Historically found in rivers and lakes of Central Valley.	Low. Suitable habitat not present at facility sites. Could potentially occur in Lake Merced and small ponds of Golden Gate Park.
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE/CSC Critical Habitat	Shallow waters of bays and estuaries, critical habitat in Marin County.	Low. Suitable habitat not present at facility sites or in project area.
Hardhead (<i>Mylopharodon conocephalus</i>)	--/CSC/--	Streams in the Sacramento-San Joaquin drainage, also found in the Russian River. Deep pools with sand-gravel-boulder bottoms.	Low. Species range and habitat requirements occur outside of project area.
Central coast steelhead (<i>Oncorhynchus mykiss irideus</i>)	FT/-- Critical Habitat	Drainages of central California coastal rivers.	Low. Suitable habitat not present at facility sites or in project area.
Longfin smelt (<i>Spirinchus thaleichthys</i>)	FC/CT/--	Anadromous, pelagic fish of bays, estuaries, and nearshore coastal environments. Spawn in freshwater rivers.	Low. Suitable habitat not present at facility sites or in project area.
Eulachon (<i>Thaleichthys pacificus</i>)	--/CSC/--	Anadromous fish that spawns in coastal rivers with gravel, sand, and woody debris on bottoms. Occurs in Klamath River, Mad River, Redwood Creek, as well as Smith River and Humboldt Bay tributaries.	Low. Suitable habitat not present at facility sites or in project area.
Plants			
Bristly sedge <i>Carex comosa</i>	-/-/2.1	Lake margins, marshes, swamps, coastal prairie, and valley and foothill grasslands.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not observed there (San Francisco Planning Department, 2011; May and Associates, 2009; Nomad Ecology, 2011)
Wight's paintbrush <i>Castilleja wightii</i>	--/--/LS	Northern coastal scrub.	Low. No suitable habitat present at facility sites. Occurs on the east side of East Lake Merced (Nomad Ecology, 2011)
Vancouver wild rye <i>Elymus x vancouverensis</i>	--/--/LS	Coastal strand.	Low. No suitable habitat present at facility sites. Occurs on the northwest side of the Mesa in California blackberry scrub (SFPRD, 2006).

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Plants (cont.)			
Blue coast gilia <i>(Gilia capitata</i> ssp. <i>chamissonis)</i>	-/-/1B.1	Coastal scrub and coastal dunes.	Low. No suitable habitat present at facilities sites but species is known to occur in dune scrub habitat at Lake Merced (May and Associates, 2009; Nomad Ecology, 2011).
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE/-/1B.1	Sandy or gravelly coastal dunes, coastal scrub, cismontane woodland and maritime chaparral.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not observed there (San Francisco Planning Department, 2011; May and Associates, 2009; Nomad Ecology, 2011); species presumed extirpated in San Francisco.
Franciscan manzanita <i>Arctostaphylos franciscana</i>	-/-/1B.1	Open, rocky, serpentine outcrops in chaparral.	Low. No suitable habitat present at facility sites This species was believed to be extinct in the wild (although still extant through cultivation), but was rediscovered in Presidio National Park in late 2009.
San Francisco spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	-/-/1B.2	Coastal bluff scrub, dunes, prairie, and coastal scrub; sandy soils on terraces and slopes.	Low. No suitable habitat present at facility sites but species is known to occur at Lake Merced (May and Associates, 2009; Nomad Ecology, 2011).
Franciscan thistle <i>Cirsium andrewsii</i>	-/-/1B.2	Coastal bluff scrub, coastal prairie, coastal mesic scrub, and broadleaf upland forest; sometimes on serpentine.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not observed there (San Francisco Planning Department, 2011; May and Associates, 2009; Nomad Ecology, 2011)
Compact cobwebby thistle <i>Cirsium occidentale</i> var. <i>compactum</i>	-/-/1B.2	On dunes or clay in chaparral, coastal dunes, coastal prairie, coastal scrub, and grasslands.	Low. No suitable habitat present at facility sites. Suitable habitat present at Lake Merced but species not documented to occur there (May and Associates, 2009; Nomad Ecology, 2011).
San Francisco collinsia <i>Collinsia multicolor</i>	-/-/1B.2	On humus-covered soil derived from mudstone in closed-cone coniferous forest and coastal scrub.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present in coastal scrub at Lake Merced but species not documented to occur there (May and Associates, 2009; Nomad Ecology, 2011).
San Francisco wallflower <i>Erysimum franciscanum</i>	--/--/4	Coastal scrub and grasslands	Low. No suitable habitat present at facility sites. Formerly known from Lake Merced but not recently observed; may be present in the seedbank.
San Francisco gumplant <i>Grindelia hirsutula</i> var. <i>maritima</i>	-/-/1B.2	On sandy or serpentine slopes of sea bluffs in coastal scrub, or valley and foothill grasslands.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not documented to occur there (San Francisco Planning Department, 2011; May and Associates, 2009; Nomad Ecology, 2011); species reintroduced in Pine Lake Park (SFRPD, 2006), but not known to occur in project area.
Short-leaved evax <i>Hesperivax sparsiflora</i> var. <i>brevifolia</i>	-/-/1B.2	Sandy bluffs and flats in coastal scrub and coastal dunes.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011); nearest species record is McLaren Park.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name <i>Scientific Name</i>	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Plants (cont.)			
Marsh microseris <i>Microserus paludosa</i>	-/-/1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011).
Choris's popcorn-flower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	-/-/1B.2	Mesic sites in chaparral, coastal scrub, and coastal prairie.	Low. No suitable habitat present at facility sites. Potentially suitable habitat Present at Lake Merced but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011); historical record of species occurrence in Golden Gate Park.
Oregon polemonium <i>Polemonium carneum</i>	-/-/1B.1	Coastal prairie, coastal scrub, lower montane coniferous forest.	Low. No suitable habitat present at facility sites. Potentially suitable habitat Present at Lake Merced but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011).
Canyon live oak <i>Quercus chrysolepsis</i>	--/--/LS	Chaparral and valley grasslands.	Low. No suitable habitat present at facility sites. Occurs on the south side of East Lake Merced; not known to South Lake Merced (Nomad Ecology, 2011).
Coastal black gooseberry <i>Ribes divaricatum</i>	--/--/LS	Moist coastal understories; streamside thickets	Low. No suitable habitat present at facility sites. Occurs along southeastern slopes of Impound Lake (Lake Merced).
Thimbleberry <i>Rubus parviflorus</i>	--/--/LS	Closed cone pine forest and riparian wetlands.	Low. No suitable habitat present at facility sites. Occurs on the south shore of East Lake Merced (Nomad Ecology, 2011).
Dune tansy <i>Tanacetum camphoratum</i>	--/--/LS	Coastal dunes and clearings in dune scrub.	Low. Marginally suitable habitat in disturbed scrub near RWTP. Occurs on southwestern shore of South Lake Merced.
Coastal triquetrella <i>Triquetrella californica</i>	-/-/1B.2	On soil in coastal bluff and coastal scrub.	Low. No suitable habitat present at facility sites. Potentially suitable habitat Present at Lake Merced but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011).
Adobe sanicle <i>Sanicula maritima</i>	/Rare/1B.1	Moist clay or ultramafic soil in chaparral, coastal prairie, meadows, seeps, and valley and foothill grassland.	Low. No suitable habitat present.
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	-/-/1B.2	Alkali flats, flooded grassland, playas and vernal pools.	Low. No suitable habitat present; species presumed extirpated in San Francisco.
Arcuate bush mallow <i>Malacothamnus arcuatus</i>	-/-/1B.2	Gravelly alluvium in chaparral and cismontane woodland.	Low. No suitable habitat present.
Beach layia <i>Layia carnosa</i>	FE/CE/1B.1	Sparsely vegetated, semi-stabilized coastal dunes and scrub.	Low. No suitable habitat present; presumed extirpated in San Francisco.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	-/-/1B.2	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland.	Low. No suitable habitat present.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name Scientific Name	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Plants (cont.)			
Dark-eyed gilia <i>Gilia millefoliata</i>	-/-/1B.2	Coastal dunes.	Low. No suitable habitat; species potentially extirpated in San Francisco.
Diablo helianthella <i>Helianthella castanea</i>	-/-/1B.2	On rocky soils in broadleaf upland forest, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland.	Low. No suitable habitat present. Presumed extirpated from San Francisco.
Fragrant fritillaria <i>Fritillaria liliacea</i>	-/-/1B.2	On clay, often serpentine derived soils in coastal scrub, grassland, and coastal prairie.	Low. No suitable habitat present.
Hairless popcorn-flower <i>Plagiobothrys glaber</i>	-/-/1A	Coastal salt marshes and alkaline meadows.	Low. Not documented from San Francisco, and presumed extirpated throughout range.
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	-/-/1B.1	Openings in old dunes coastal and sandhill in closed-cone coniferous forest, coastal scrub, and chaparral.	Low. No suitable habitat present.
Marin western flax <i>Hesperolinon congestum</i>	FT/CT/1B.1	Chaparral and grassland, usually on serpentine barrens	Low. No suitable habitat present.
Marsh sandwort <i>Arenaria paludicola</i>	FE/CE/1B.1	Freshwater or brackish marshes and swamps.	Low. No suitable habitat present at facility sites. Potentially suitable habitat present at Lake Merced, but species not observed there (May and Associates, 2009; Nomad Ecology, 2011; San Francisco Planning Department, 2011); species presumed extirpated in San Francisco.
Montara manzanita <i>Arctostaphylos montaraensis</i>	-/-/1B.2	Slopes and ridges in chaparral and coastal scrub.	Low. No suitable habitat present.
Pacific manzanita <i>Arctostaphylos pacifica</i>	-/CE/1B.1	Coastal scrub and chaparral.	Low. No suitable habitat present.
Pappose tarplant <i>Centromadia parryi</i> ssp. <i>parryi</i>	-/-/1B.2	Chaparral, coastal prairie, meadows, seeps, coastal salt marshes and swamps, and vernal mesic, often alkaline, valley and foothill grasslands.	Low. No suitable habitat present.
Point Reyes bird's-beak <i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	-/-/1B.2	Coastal salt marshes and swamps.	Low. No suitable habitat present.
Presidio clarkia <i>Clarkia franciscana</i>	FE/CE/1B.1	Serpentine outcrops in coastal scrub, and valley and foothill grassland.	Low. No suitable habitat present.
Presidio manzanita <i>Arctostaphylos montana</i> ssp. <i>Ravenii</i>	FE/CE/1B.1	Open, rocky, serpentine slopes in chaparral, coastal scrub, and coastal prairie.	Low. No suitable habitat present.
Rose leptosiphon <i>Leptosiphon rosaceus</i>	-/-/1B.1	Coastal bluff scrub.	Low. No suitable habitat present.
Round-headed Chinese-houses <i>Collinsia corymbosa</i>	-/-/1B.2	Coastal dunes and coastal prairie.	Low. No suitable habitat present; species has not been seen in San Francisco for more than 100 years.
San Bruno Mountain manzanita <i>Arctostaphylos imbricata</i>	-/CE/1B.1	Chaparral and coastal scrub, usually on sandstone outcrops.	Low. No suitable habitat present. Not documented in San Francisco.

TABLE A1-1 (Continued)
SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN SFPUC RECYLED WATER PROJECT AREA

Common Name <i>Scientific Name</i>	Listing USFWS/CD FW/CNPS	Habitat Requirements	Potential to Occur in Project Area
Plants (cont.)			
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>	-/-/1B.2	Mudstone, shale, or serpentine substrates in coastal scrub, coastal prairie, chaparral and valley and foothill grassland.	Low. No suitable habitat present.
San Francisco lessingia <i>Lessingia germanorum</i>	FE/CE/1B.1	Open, sandy, coastal dunes and scrub.	Low. Marginally suitable habitat present.
San Francisco owl's-clover <i>Triphysaria floribunda</i>	-/-/1B.2	Coastal prairie, and valley and foothill grasslands; occasionally on serpentine.	Low. No suitable habitat present.
San Francisco popcorn-flower <i>Plagiobothrys diffusus</i>	-/CE/1B.1	Coastal prairie, and valley and foothill grasslands.	Low. No suitable habitat present. Presumed extirpated in San Francisco.
Santa Cruz microseris <i>Stebbinsoseris decipiens</i>	-/-/1B.2	On sandstone, shale or serpentine derived seaward facing slopes in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, and coastal scrub.	Low. No suitable habitat present.
Water star-grass <i>Heteranthera dubia</i>	-/-/2B.2	Marshes and swamps.	Low. No suitable habitat present.
White seaside tarplant <i>Hemizonia congesta</i> ssp. <i>congesta</i>	-/-/1B.2	Grassy valleys and hills, often on fallow fields in coastal scrub.	Low. No suitable habitat present.
White-rayed pentachaeta <i>Pentachaeta bellidiiflora</i>	FE/CE/1B.1	Open, dry, rocky slopes and grassy areas, usually on serpentine.	Low. No suitable habitat present.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)
 FT = Listed as Threatened (likely to become Endangered within the foreseeable future) by the Federal Government.
 FSC = Federal Species of Concern
 FC = Candidate for federal listing

STATE: (California Department of Fish and Wildlife [CDFW])
 CT = Listed as Threatened by the State of California
 CE = Listed as Endangered by the State of California
 CSC = California Species of Special Concern
 CFP = California Department of Fish and Wildlife designated "fully protected"

WL = Watch list
 §3503.5 = California Fish and Game Code Section §3503.5
 This code protects nesting raptors and birds of prey
 * = Species listed on Special Animals list, CDFG, 2011

OTHER:

WBWG = Western Bat Working Group:
 Low = Stable population
 Medium = Need more information about the species, possible threats, and protective actions to implement.
 High = Imperiled or at high risk of imperilment.

California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR):
 1A = Presumed extirpated in California; Rare or extinct in other parts of its range.
 1B = Rare, threatened, or endangered throughout range; Most species in this rank are endemic to California.
 2A = Extirpated in California, but common in other parts of its range.
 2B = Rare, threatened, or endangered in California but common in other parts of its range.
 3 = Need more information about species to assign it a ranking.
 4 = Limited distribution and therefore warrants monitoring of status.
 .1 = Seriously endangered in California
 .2 = Fairly endangered in California
 LS = Locally Significant Species

REFERENCES

- Bat Conservation International, 2014. Species profiles for Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*) and western red bat (*Lasiurus blossevillii*). Accessed February, 2014. Available at:
<http://batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=2435&country=43&state=9&family=all&limitstart=0>
<http://batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=1890&country=43&state=9&family=all&limitstart=0>
<http://batcon.org/index.php/all-about-bats/species-profiles.html?task=detail&species=1718&country=43&state=9&family=all&limitstart=0>
- Bay Area Open Space Council. 2011. *The Conservation Lands Network: San Francisco Bay Area Upland Habitat Goals Project Report*. Berkeley, CA.
- California Department of Fish and Game (CDFG). Longfin smelt (*Spirinchus thaleichthys*) fact sheet. Version 1-June 2009.
- California Department of Fish and Game (CDFG), *California Natural Diversity Database (CNDDDB)*. Data request for U.S. Geological Survey San Francisco North and San Francisco South 7.5-minute topographic quadrangles. Information dated February 27, 2011.
- California Department of Fish and Wildlife (CDFW), *California Natural Diversity Database (CNDDDB)*. Data request for U.S. Geological Survey San Francisco North 7.5-minute topographic quadrangle and eight surrounding quads. Accessed January, 2014.
- California Native Plant Society (CNPS), 2014. CNPS Electronic Inventory data request for U.S. Geological Survey San Francisco North 7.5-minute topographic quadrangle. Accessed January, 2014.
- Cornell Lab of Ornithology, 2014. All About Birds. Available at: <http://www.allaboutbirds.org/>. Accessed various dates, January, 2014.
- Cornell Lab of Ornithology: eBird, <http://ebird.org/content/ebird/>. Accessed various dates, February, 2014.
- Essig Museum of Entomology, 2014. Species profile for Callippe silverspot butterfly (*Speyeria callippe callippe*). Accessed February 2014. Available at: <http://essig.berkeley.edu/endins/callippe.htm>
- Golden Gate National Parks Conservancy, 2014. Species profile for Mission blue butterfly (*Plebejus icarioides missionensis*). Accessed February 2014. Available at:
<http://www.parksconservancy.org/conservation/plants-animals/endangered-species/mission-blue-butterfly.html>
- Jones and Stokes, *Probable Absence of California Red-Legged Frog from Lake Merced*, Oakland, CA, 2007.
- Krauel, J.K., Foraging Ecology of Bats in San Francisco, M.S. Thesis, San Francisco State University. Available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2001.0016E, 2009.
- May and Associates, *Draft Botanical Survey Report, Lake Merced Water Level Restoration Project*. Prepared for Winzler & Kelly, August 31, 2009.

NOAA Fisheries, Office of Protected Resources, 2014. Steelhead trout (*Oncorhynchus mykiss*). Accessed January 23, 2014. Available at <http://www.nmfs.noaa.gov/pr/species/fish/steelheadtrout.htm#more>.

NOAA Fisheries, Office of Protected Resources, 2014. Pacific Eulachon/Smelt (*Thaleichthys pacificus*). Accessed February 3, 2014. Available at <http://www.nmfs.noaa.gov/pr/species/fish/pacificseulachon.htm>.

Nomad Ecology, *Lake Merced Vegetation Mapping Update, Lake Merced Natural Area, City and County of San Francisco, California*, revised draft. Prepared for San Francisco Public Utilities Commission, May 2011.

San Francisco Recreation and Park Department (SFRPD), *Significant Natural Resource Areas Management Plan*, February 2006.

Shuford, W.D., and Gardali, T., eds., 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Camarillo, Western Field Ornithologists, and Sacramento, California Department of Fish and Game, 2008.

United States Geological Society, 2014. Nonindigenous Aquatic Species information for Sacramento perch (*Archoplites interruptus*). Accessed February 5th, 2014. Available at: <http://nas2.er.usgs.gov/viewer/omap.aspx?SpeciesID=374>

Western Bat Working Group, 2014. Regional Bat Species Priority Matrix and Species Accounts for fringed myotis (*Myotis thysanodes*), Silver-haired bat (*Lasionycteris noctavagans*), and hoary bat (*Lasiurus cinereus*). Accessed February, 2014. Available at:

http://www.wbwg.org/speciesinfo/species_matrix/spp_matrix.pdf

http://www.wbwg.org/speciesinfo/species_accounts/vespertilionidae/myth.pdf

http://www.wbwg.org/speciesinfo/species_accounts/vespertilionidae/lano.pdf

http://www.wbwg.org/speciesinfo/species_accounts/vespertilionidae/laci.pdf

APPENDIX 2

Hazardous Materials Database Search Results

**TABLE A2-1
SITES IDENTIFIED BY ENVIRONMENTAL DATABASE REVIEW THAT ARE ON OR ADJACENT TO PIPELINE ALIGNMENTS**

IS Site No.	Site Name	Address	Environmental Cases				Permitted Hazardous Materials Uses and Historic Hazardous Materials Uses								
			Envirostor/ FUDS	MCS	LUST	Cortese/ Hist Cortese	UST	AST	Haznet	Historic UST	Historic Cleaners	Historic Auto Station	FTTS	RCRA SQG	FINDS
Oceanside WPCP Vicinity															
1	San Francisco Armory	100 Armory Drive		x			x		x						
2	SFPUC Westside Pump Station	3000 Great Highway					x		x						
3	Standard Oil Company	3340 Great Highway										x			
4	Olsen Ohbayashi	3520 Great Highway							x						
5	Janet Pomeroy Recreation and Rehabilitation Center	207 Skyline Boulevard			x	x	x	x	x						x
6	Harding Park	Skyline Boulevard and Harding Park Road								x					
7	San Francisco Zoological Society	1 Zoo Road							x						
8	Org Maintenance Shop #36 – California National Guard	99 Zoo Road							x	x				x	x
9	SF AAA Battery 61-N		x												
Oceanside WPCP to Central Reservoir Site															
10	Monterey Auto Service	1574 34th Avenue											x		
11	Richards Auto Repair	1940 36th Avenue											x		
12	Betty Woo	2030 36th Avenue							x						
13	Safeway Carpet Cleaning	2900 Judah Street									x				
14	007 Carpet Cleaning	2544 Taraval Street									x				
15	Bubbles Laundromat	2545 Vicente Street									x				
Central Reservoir Site to Lincoln Park															
16	Residential Property	800 26th Avenue					x								
17	Residential Property	801 28th Avenue					x		x						
18	Residential Property	517 36th Avenue					x		x						
19	Rio Grande Service	700 36th Avenue										x			
20	Residential Property	400 40th Avenue					x		x						
21	San Francisco Unified School District	4545 Anza Street					x		x						
22	California Muffler and Brake	3508 Balboa Street										x			
23	Balboa Launderette	3524 Balboa Street									x				
24	Fabric Care Center	3535 Balboa Street									x				

TABLE A2-1 (Continued)
SITES IDENTIFIED BY ENVIRONMENTAL DATABASE REVIEW THAT ARE ON OR ADJACENT TO PIPELINE ALIGNMENTS

IS Site No.	Site Name	Address	Environmental Cases				Permitted Hazardous Materials Uses and Historic Hazardous Materials Uses								
			Envirostor/ FUDS	MCS	LUST	Cortese/ Hist Cortese	UST	AST	Haznet	Historic UST	Historic Cleaners	Historic Auto Station	FTTS	RCRA SQG	FINDS
Central Reservoir Site to Lincoln Park (cont.)															
25	Commercial Property	2345 Cabrillo Street			x										
26	Residential Property	2512 Cabrillo Street							x						
27	Residential Property	2715 Cabrillo Street					x		x						
28	Steve Shimato	3537 Clement Street							x						
29	Residential Property	16 Shore View Avenue							x						
30	Residential Property	34 Shore View Avenue			x	x	x		x						
Central Reservoir Site to Presidio Golf Course															
31	Residential Property	491 20th Avenue					x		x						
32		483 22nd Avenue					x		x						
33	Residential Property	600 24th Avenue					x		x						
34	San Francisco Unified School District	735 24th Avenue							x						
35	PG&E Substation K	24th Avenue and Balboa Street							x						
36	Residential Property	795 25th Avenue					x		x						
37	Residential Property	815 25th Avenue					x		x						
38	Residential Property	2524 Anza Street					x		x						
39	Residential Property	2828 Anza Street					x		x						
40	Residential Property	2832 Anza Street											x	x	
41	Residential Property	3226 Anza Street							x						
42	Residence	1301 Lake Street					x								
Adjacent to Golden Gate Park Pan Handle															
43	Apartment Property	1245 Oak Street			x		x		x						
44	Residential Property	1445 Oak Street			x	x	x		x						
45		1535 Oak Street					x		x						
46	Residential Property	1555 Oak Street					x		x						
47	Residential Property	1565 Oak Street					x								
48	Residential Property	1837 Oak Street			x		x		x						

TABLE A2-1 (Continued)
SITES IDENTIFIED BY ENVIRONMENTAL DATABASE REVIEW THAT ARE ON OR ADJACENT TO PIPELINE ALIGNMENTS

IS Site No.	Site Name	Address	Environmental Cases				Permitted Hazardous Materials Uses and Historic Hazardous Materials Uses								
			Envirostor/ FUDS	MCS	LUST	Cortese/ Hist Cortese	UST	AST	Haznet	Historic UST	Historic Cleaners	Historic Auto Station	FTTS	RCRA SQG	FINDS
Adjacent to Golden Gate Park Pan Handle (cont.)															
49	Residential Property	1865 Oak Street					x		x						
50	Residential Property	1959 Oak Street					x		x						
51	Residential Property	2027 Oak Street			x	x	x		x						
52	Residential Property	2049 Oak Street			x		x		x						
53	Residential Property	2065 Oak Street							x						
54	Commercial Property	600 Stanyan Street			x		x		x						
55	Papandriades Anton	610 Stanyan Street									x				
56	Ted & Al's Service Station	624 Stanyan Street			x		x		x			x		x	x

List of Abbreviations:

AST: sites with registered aboveground storage tanks.

Cortese/Hist Cortese: Hazardous Waste & Substances Sites List that includes sites designated by the Department of Toxic Substances Control, State Water Resources Control Board, and Integrated Waste Board

Envirostor: sites identified by the California Department of Toxic Substances Control that have known contamination or sites for which there may be reasons to investigate further

Finds: Facility Index System/Facility Registry System - usually includes pointers to other sources that contain more detail

FTTS: FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) Tracking System - tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act).

FUDS: formerly used defense sites.

Haznet: facility and manifest data, includes sites that have manifested hazardous wastes for off-site disposal.

Historic Auto Station: Historic Gas Stations (proprietary EDR database).

Historic Cleaners: Historic Dry Cleaners (proprietary EDR database).

Historic UST: Sites that have historically had one or more underground storage tank, tracked in several databases searched by Environmental Data Resources

MCS: military cleanup site

RCRA SQG: Resource Conservation and Recovery Act, Small Quantity Generators.

UST: sites with permitted underground storage tanks

SOURCE: EDR, 2014; Orion Environmental Associates

TABLE A2-2
STAUTS OF LEAKING UNDERGROUND STORAGE TANK SITES ON OR ADJACENT TO PIPELINE ALIGNMENTS

IS Site No.	Site Name	Address	Fuel Type	Type of Case	Status	Year Closed
Oceanside WPCP Vicinity						
6	Recreation Center for the Handicapped	207 Skyline Boulevard	Gasoline	Groundwater	Open	still open
Oceanside WPCP to Central Reservoir Site						
<i>Central Reservoir Site to Lincoln Park</i>						
26	Commercial Property	2345 Cabrillo Street	Heating Oil	Soil Only	Closed	2011
31	Residence	34 Shore View Avenue	Diesel	Soil Only	Closed	2000
Central Reservoir Site to Presidio Golf Course						
<i>Adjacent to Golden Gate Park Pan Handle</i>						
44	Apartment Property	1245 Oak Street	Heating Oil	Soil Only	Closed	2007
45	Residential Property	1445 Oak Street	Heating Oil	Soil Only	Closed	1998
49	Residential Property	1837 Oak Street	Heating Oil	Soil Only	Closed	2006
52	Residential Property	2027 Oak Street	Heating Oil	Soil Only	Closed	1998
53	Residential Property	2049 Oak Street	Heating Oil	Soil Only	Closed	2006
55	Commercial Property	600 Stanyan Street	Heating Oil	Soil Only	Closed	2004
57	Ted & Al's Service Station	624 Stanyan Street	Gasoline	Groundwater	Closed	2012

SOURCE: EDR, 2014; Orion Environmental Associates

**TABLE A2-3
STAUTS OF LEAKING UNDERGROUND STORAGE TANK SITES WITHIN 1/4-MILE OF PIPELINE ALIGNMENTS**

IS Site No.	Site Name	Address	Fuel Type	Type of Case	Status	Year Closed
58	Residential Property	209 14th Avenue	Heating Oil	Not available	Closed	2008
59	Residential Property	487 14th Avenue	Heating Oil	Soil Only	Closed	1999
60	C.J. Figone D. Storage	420 17th Street	Gasoline	Groundwater	Closed	1995
61	Shorenstein Property	75 1st Street	Gasoline	Groundwater	Closed	1996
62	Unocal Service Station	390 1st Street	Gasoline	Groundwater	Closed	1992
63	Bayside Village	551 1st Street	Gasoline	Soil Only	Closed	1995
64	Commercial Property	387 21st Avenue	Waste Oil	Soil Only	Closed	2006
65	Residential Property	771 21st Avenue	Heating Oil	Soil Only	Closed	2012
66	Shrayber Property	690 25th Avenue	Gasoline	Soil Only	Closed	1994
67	San Francisco Fire Department	551 26th Avenue	Waste Oil	Soil Only	Closed	1994
68	Residential Property	895 31st Avenue	Waste Oil	Soil Only	Closed	2005
69	Clement Auto	388 32nd Avenue	Gasoline	Groundwater	Closed	2004
70	Residential Property	147 Ashbury Street	Diesel	Soil Only	Closed	2000
71	Commercial Property	461 Baker Street	Gasoline	Soil Only	Closed	2006
72	400 W. 22nd Street Corporation	561 Baker Street	Heating Oil	Soil Only	Closed	2002
73	Commercial Property	2441 Balboa Street	Heating Oil	Soil Only	Closed	2008
74	Commercial Property	2738 Balboa Street	Heating Oil	Soil Only	Closed	2010
75	Commercial Property	75 Buena Vista Avenue	Heating Oil	Not available	Closed	2010
76	Residential Property	1324 Clement Street	Information not available		Closed	Not available
77	US Government VA Medical Center	4150 Clement Street	Diesel	Soil Only	Closed	1994
78	Former Mobil Station	443 Divisadero Street	Waste Oil	Groundwater	Closed	1996
79	Arco Service Station	1175 Fell Street	Gasoline	Groundwater	Closed	1996
80	Ted & Al's Towing	1215 Fell Street	Gasoline	Soil Only	Closed	2001
81	Chevron Service Station	1698 Fell Street	Gasoline	Soil Only	Closed	1995
82	De Young & Shorkey Property	2070 Fell Street	Gasoline	Groundwater	Closed	1995
83	Residential Property	2100 Fell Street	Heating Oil	Soil Only	Closed	1999
84	Shell Service Station	2198 Fell Street	Gasoline	Groundwater	Closed	2002
85	Residential Property	2237 Fulton Street	Heating Oil	Soil Only	Closed	1999
86	Residential Property	2243 Fulton Street	Heating Oil	Soil Only	Closed	1999
87	Multi-Unit Property	10 Funston Avenue	Heating Oil	Soil Only	Closed	2013
88	Unocal #54	4850 Geary Boulevard	Gasoline	Groundwater	Closed	2006
89	Chevron Service Station	6000 Geary Boulevard	Open as of 1984 - no additional information			

TABLE A2-3 (Continued)
STAUTS OF LEAKING UNDERGROUND STORAGE TANK SITES WITHIN 1/4-MILE OF PIPELINE ALIGNMENTS

MND Site No.	Site Name	Address	Fuel Type	Type of Case	Status	Year Closed
90	Residential Property	6099 Geary Boulevard	Gasoline	Groundwater	Closed	2006
91	Unocal	6900 Geary Boulevard	Gasoline	Groundwater	Closed	1995
92	Chevron	6901 Geary Boulevard	Waste Oil	Soil Only	Closed	1993
93	Golden Gate Service	7355 Geary Boulevard	Waste Oil	Soil Only	Closed	1999
94	Golden Gate Park Conservatory	Golden Gate Park	Gasoline	Not available	Closed	1997
95	Christeve Properties	1336 Grove Street	Diesel	Soil Only	Closed	1995
96	Residential Property	1401 Grove Street	Heating Oil	Soil Only	Closed	2000
97	Residential Property	2150 Grove Street	Heating Oil	Soil Only	Closed	1998
98	Residential Property	2190 Grove Street	Heating Oil	Soil Only	Closed	1992
99	Residential Property	956 Haight Street	Diesel	Soil Only	Closed	2003
100	3rd Church of Christ	1250 Haight Street	Heating Oil	Soil Only	Closed	1996
101	City College of San Francisco	1860 Hayes Street	Gasoline	Soil Only	Closed	2010
102	Former Tosco/Unocal Service Station	2545 Judah Street	Gasoline	Groundwater	Closed	1999
103	Former Service Station	11 Lakeshore Plaza	Gasoline	Groundwater	Closed	1993
104	Shell Service Station	1070 Oak Street	Gasoline	Groundwater	Closed	2003
105	Commercial Property	1209 Oak Street	Heating Oil	Soil Only	Closed	2004
106	Residential Property	400 Shrader Street	Heating Oil	Soil Only	Closed	1998
107	San Francisco Police Department	Stanyan and Waller Streets	Gasoline	Groundwater	Closed	1997
108	Residential Property	416 Stanyan Street	Heating Oil	Soil Only	Closed	2000
109	St. Marys Hospital	450 Stanyan Street	Diesel	Soil Only	Closed	2001
110	J&R Auto	2249 Taraval Street	Gasoline	Soil Only	Closed	1994
111	J&R Auto	2255 Taraval Street	Waste Oil	Soil Only	Closed	2012

SOURCE: EDR, 2014; Orion Environmental Associates

APPENDIX B

Scoping Meeting Materials



SAN FRANCISCO PLANNING DEPARTMENT

Agenda **San Francisco Westside Recycled Water Project Environmental Impact** **Report** **Public Scoping Meeting**

Ortega Branch Library
July 29, 2014, 6:30 PM

I. Introduction

- Introductions to EIR Preparers and Project Sponsor
 - Steven Smith – SF Planning Department (EIR Coordinator)
 - Scott MacPherson and Barbara Palacios – SF Public Utilities Commission (Project Sponsor)
 - ESA (EIR Consultant)
- Purpose of meeting
- Meeting format

II. Summary of California Environmental Quality Act (CEQA) Process

- Notice of Preparation/IS (30-day public review period)
- Scoping Meeting
- Draft EIR (45-day public review period, Planning Commission hearing)
- Comments and Responses Document (approx. 14-day review)
- Final EIR Certification (Planning Commission hearing)

III. Brief Overview of Proposed Project

IV. Public Comment

- Comments on environmental review issues from speakers who fill out a speaker card
- Three minutes per speaker

V. Final Reminders

- Submit written comments to **Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103**, by 5:00 p.m., **August 15, 2014**.
- If you have questions or comments regarding the proposed project and the environmental process, please contact **Steven Smith** at **(415) 558-6373**.

**San Francisco Planning Department
EIR Public Scoping Meeting Written Comment Form**

**San Francisco Westside Recycled Water Project
Case # 2008.0091E**

If you wish to submit written comments on the above project, you may do so on this sheet (although use of this form is not required). Please submit written comments in person to Steven Smith at today's public scoping meeting, or by mail to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. **All comments must be submitted no later than 5 P.M., August 15, 2014.**

Write your comments regarding the environmental review for the project here. Use the back of the sheet or additional pages if necessary.

Name: _____

Organization (if any): _____

Address: _____

EIR Public Scoping Meeting Sign-In Sheet
San Francisco Westside Recycled Water Project
July 29, 2014

PRINT NAME	ADDRESS	TELEPHONE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
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9.		
10.		
11.		
12.		
13.		
14.		
15.		

San Francisco Planning Department Speaker Card

To aid in the preparation of minutes or a transcript, you are requested, but not required, to provide this information:

Please **PRINT** then give to meeting moderator

Name: _____

Organization (if any): _____

Address: _____

Public Scoping Meeting

San Francisco Planning Department
Environmental Planning Division

SCOPING MEETING

San Francisco Westside Recycled Water Project
Environmental Impact Report
July 29, 2014

San Francisco Westside Recycled Water Project – EIR Scoping Meeting

- Sign in at the table near the entrance.
- Pick up copies of meeting materials.
- If you would like to speak tonight, fill out a speaker card.
- To make written comments, pick up comment cards.
 - ♦ *Drop off at the end of the meeting*
 - ♦ *Mail or fax later*
- Please hold all comments until the end of the overview/presentation.

Meeting Agenda

- Introductions
- Environmental Review Process Overview (Planning)
- Proposed Project Overview (SFPUC)
- Public Comments
- Closing Remarks

Project Team Introductions

San Francisco Planning Department

- ♦ *Steven Smith, Environmental Review Coordinator*
- ♦ *Alisa Moore, Environmental Consultant Lead, ESA*

San Francisco Public Utilities Commission (SFPUC)

- ♦ *Barbara Palacios, PE, Project Manager*
- ♦ *Scott MacPherson, Environmental Project Manager*
- ♦ *Amy Sinclair, Communications*

ENVIRONMENTAL REVIEW PROCESS

California Environmental Quality Act

Projects require environmental review under the California Environmental Quality Act (CEQA) before they can be considered for approval.

For SFPUC projects, CEQA is implemented by the San Francisco Planning Department

CEQA Objectives

- Present environmental impacts of proposed projects
- Identify ways to avoid or reduce environmental impacts
- Support the agency decision-making process
- Encourage public participation
- Promote interagency coordination

Environmental Impact Report (EIR)

- Provide a description of the project and surrounding environment
- Identify potential environmental effects of the project
- Identify ways to avoid or reduce significant environmental effects through mitigation or alternatives to the proposed project

Environmental Impact Report

- Initial Study prepared for the project focused the EIR on the following environmental topics:
 - ◆ *Population and Housing (Growth Inducement)*
 - ◆ *Cultural Resources*
 - ◆ *Transportation and Circulation*
 - ◆ *Noise*
 - ◆ *Air Quality*
 - ◆ *Hydrology and Water Quality*
- Other environmental topics are addressed in Initial Study but do not require further analysis.

Proposed Environmental Review Schedule

- Notice of Preparation – July 16, 2014
- Public Scoping Meeting – July 29, 2014
- Scoping Period Ends – August 15, 2014

Tentative EIR schedule

- Public Review of Draft EIR – Early 2015
- Certification of Final EIR – Summer 2015

Meeting Purpose

- Hear your comments on the proposed scope and focus of the environmental review for the San Francisco Westside Recycled Water Project
- Potentially providing information on:
 - ◆ *Environmental effects (noise, transportation, etc.)*
 - ◆ *Range of alternatives*
 - ◆ *Methods of assessment*
 - ◆ *Potential mitigation measures*

SFPUC PRESENTATION OF THE PROJECT

What is Recycled Water?



Recycled water is wastewater treated for non-drinking uses. Recycled water is safe!



Purple pipes are used to distribute recycled water, keeping it separate from drinking water.



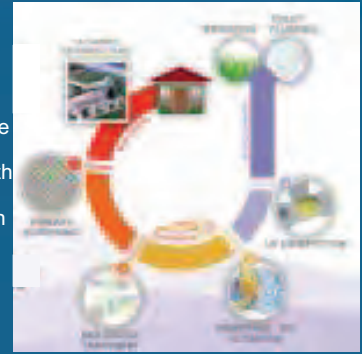
Recycled water is widely used in California - more than 51 mgd were used in the Bay Area in 2010!



Recycled Water Treatment



- Wastewater is treated at Oceanside WPCP
 - Final product is "secondary effluent"
- Secondary effluent will be further treated at the recycled water facility with membranes, reverse osmosis, and disinfection with ultraviolet light
- Treatment process and water quality will be closely monitored



Why Recycled Water?



- Reduce the use of drinking water for irrigation and other non-drinking uses
- Diversify the SFPUC's local water supplies to meet long-term water demands
- City policy is to use recycled water
 - 1991 SF Recycled Water Ordinance
 - 2009 SF Park Code Amendments
- Drought-proof source of non-potable water
- An investment in the City's **sustainable** future

Proposed Westside Recycled Water Project



- Produce an average of 1.6 mgd of recycled water
- New treatment facility within Oceanside Plant
- Approximately 8.4 miles of new pipeline
- New underground reservoir and pump station in Golden Gate Park



Westside RW Treatment Facility



New GGP Reservoir and Pump Station



- Upgrade of existing buried reservoir and above ground pump station
- New 840,000 gallon buried reservoir
- New 5,000 SF above ground pump station
 - ◆ Approximately 20-ft tall
 - ◆ Mechanical "penthouse" – up to 25-ft tall



Proposed Customers & Uses of Recycled Water



- Proposed uses/customers at project start-up:
 - ◆ Irrigation of Golden Gate Park and Panhandle
 - ◆ Lake-fill in Golden Gate Park
 - ◆ Toilet flushing and irrigation of green roof at the California Academy of Sciences
 - ◆ Irrigation of Lincoln Park Golf Course
 - ◆ Irrigation of Presidio Golf Course and National Cemetery
- Potential Future Customers
 - ◆ The Zoo



SFPUC Committed to Recycled Water



Developing recycled water for non-potable uses will help ensure that our water supply portfolio is managed to provide a reliable, high quality supply for drinking water.

PUBLIC COMMENTS

Comment Session Ground Rules

- Submit speaker cards to speak
- Wait until your name is called
- State your name & speak clearly into the microphone
- Limit comments to 3 minutes
- Use comment forms for more extensive input

Where to send comments

Scoping comments accepted through Friday,
August 15, 2014 (by 5 p.m.).

Send Comment Letter :

- By U.S. mail to:
San Francisco Planning Department
Attn: Sarah Jones, Environmental Review Officer
San Francisco Westside Recycled Water Project Comment
1650 Mission Street, Suite 400
San Francisco, CA 94103
- By fax to (415) 558-6409
- By email to: Steve.Smith@sfgov.org

For More Information

About the Environmental Review Process:

*Steven Smith, SF Planning Dept.
Environmental Planning Division
(415) 558-6373, Steve.Smith@sfgov.org*

The Notice of Preparation (NOP) and Initial Study are available online at the Planning Department website
<http://www.sf-planning.org/index.aspx?page=1829>

About the Proposed Project:

*Scott Macpherson, SFPUC
Bureau of Environmental Management
(415) 551-4525, smacpherson@sfgov.org*

EIR Public Scoping Meeting Sign-In Sheet
San Francisco Westside Recycled Water Project
July 29, 2014

PRINT NAME	ADDRESS	TELEPHONE
1. Doug Lym	3323 Judah St S.F., CA	LD006411@gmail.com
2. Birenbaum.	2 Shore View Ave. SF CA	janet.birenbaum@gmail.com
3. Kathy Howard	1243 42nd Ave SF CA 94122	KathyHoward@earthlink.net
4. JOAN GIRARDOT	SF 94123 349 MARINA BL.	
5. COLLEEN REBERS	3425 ALEMANY BLVD SF	415 333-9317
6. Howard Fung	1466 14th AVE SF	
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8.		
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San Francisco Planning Department Speaker Card

To aid in the preparation of minutes or a transcript, you are requested, but not required, to provide this information:

Please **PRINT** then give to meeting moderator

Name: JOAN GIRARDET

Organization (if any): _____

Address: _____

San Francisco Planning Department
EIR Public Scoping Meeting Written Comment Form

San Francisco Westside Recycled Water Project
Case # 2008.0091E

If you wish to submit written comments on the above project, you may do so on this sheet (although use of this form is not required). Please submit written comments in person to Steven Smith at today's public scoping meeting, or by mail to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. All comments must be submitted no later than 5 P.M., August 15, 2014.

Write your comments regarding the environmental review for the project here. Use the back of the sheet or additional pages if necessary.

Name:

Katherine Howard

Organization (if any):

Golden Gate Park Preservation Alliance

Address:

~~5577~~ 1243 42nd ave
SF CA
94122

APPENDIX C

Scoping Meeting Transcripts

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SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT
ENVIRONMENTAL IMPACT REPORT
PUBLIC SCOPING MEETING

6:00 P.M.

Tuesday, July 29, 2014

Ortega Branch Library

3223 Ortega street

San Francisco, California

REPORTED BY: DEBORAH FUQUA, CSR #12948

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APPEARANCES:

SAN FRANCISCO PLANNING DEPARTMENT:

Steven Smith, Environmental Review Coordinator

SAN FRANCISCO PUBLIC UTILITIES COMMISSION, Project Sponsor:

Barbara Palacios, Project Manager
Scott MacPherson, Environmental Project Manager
Amy Sinclair, Public Relations and Communication

ENVIRONMENTAL SCIENCE ASSOCIATES, Environmental Review Consultant:

Alisa Moore, Lead Consultant
Luke Armbruster, Consultant

PUBLIC COMMENT:

PAGE NO.

KATHERINE HOWARD.....	14
JOAN GIRARDOT.....	17

--o0o--

1 Tuesday, July 29, 2014

6:49 o'clock p.m.

2 P R O C E E D I N G S

3 STEVEN SMITH: Apologize for the delay, thanks
4 everybody for coming. Welcome to tonight's scoping
5 meeting. It's the San Francisco Westside Recycled
6 Water Project.

7 My name is Steven Smith. I'm with the San
8 Francisco Planning Department. I'm also the
9 environmental coordinator for the project who will
10 moderate tonight's meeting.

11 So if you haven't, we'd ask that you sign in
12 at the front table here. Luke can help you out. We
13 have meeting materials that can provide you information
14 on the project.

15 If you'd like to speak tonight, please fill
16 out a speaker card. But of course, you can also make
17 written comments. And we have comment forms here
18 tonight, but as well there's information that we can
19 provide you to e-mail, fax, mail in your comments also.
20 And just asking, too, if you do have comments, to wait
21 until the end of the presentation.

22 So meeting agenda, briefly, we'll do review,
23 overview of the environmental review process. And then
24 PUC staff will present the project to help you better
25 understand what exactly is being proposed.

1 And then if anybody is interested, we're open
2 to your public comments. And I just want to note, too,
3 that we do have a court reporter present to make a
4 transcription of tonight's project. And that will
5 become part of the record for the environmental review
6 process.

7 Again, I'm Steven Smith. I'm with the San
8 Francisco Planning Department. I'd like to introduce
9 Alisa Moore, too. She's our lead consultant with ESA,
10 and also Luke --

11 I'm sorry. What's your last name?

12 LUKE ARMBRUSTER: Armbruster.

13 STEVEN SMITH: They're an extension of our staff,
14 key people in our environmental review process.

15 And then on the project sponsor side, Barbara
16 Palacios is here. She's the project manager at PUC.
17 She'll be presenting the project description. Scott
18 MacPherson is my counterpart, the environmental project
19 manager. We also have Amy Sinclair from the
20 communications group.

21 So I just want to talk briefly, hopefully
22 somewhat clearly, about the environmental review
23 process, which is why we're here tonight. Basically,
24 it all comes down to the California Environmental
25 Quality Act, or CEQA, as it's commonly referred to.

1 And CEQA requires that any proposed project be
2 documented for the environmental impacts and that those
3 be disclosed and considered prior to a project being
4 approved.

5 So the reason for this meeting is to solicit
6 both written and your verbal input on projects so that
7 we can focus our environmental review appropriately for
8 this proposed project.

9 I want to also mention that the San Francisco
10 Planning Department is the lead agency for this
11 project. This is a City-sponsored project. The PUC is
12 part of San Francisco. So have -- the Planning
13 Department has overall responsibility for the
14 requirements of CEQA and making sure that those are
15 properly implemented.

16 So more or less, this is what CEQA is trying
17 to accomplish. The goals are to disclose and present
18 the environmental impacts of the project, hopefully
19 identify ways to avoid or reduce those impacts, and as
20 well as to support the agency decision-making process,
21 encourage public participation, for example, tonight,
22 and as well promote the interagency coordination.
23 There's various agencies that will have a say-so in
24 this project approval.

25 So this project will be subject to an

1 Environmental Impact Report, more commonly referred to
2 as an EIR.

3 And the EIR will provide a detailed
4 description of the project, assess the environmental
5 effects of the proposed project, and identify ways to
6 avoid or reduce the environmental effects. And, again,
7 the EIR is an informational document that will be used
8 by the decision makers when considering whether to
9 approve the project.

10 I'd like to note that this EIR process, once
11 it's complete, once the document is final, does not
12 represent a project approval. That's a separate
13 process. But, again, the EIR is a document that is
14 considered -- and the impacts within it -- in support
15 of the project approval process. It is a requirement
16 that the decision makers consider these environmental
17 impacts. That's kind of a -- the essence of CEQA.

18 So tonight is all about getting your input and
19 helping shape this forthcoming EIR that we're in the
20 process of writing.

21 So we have completed an initial study for the
22 project, and that's a preliminary analysis of the
23 project's impacts. There's a couple of copies of that
24 here tonight, if anybody's interested in looking at
25 that. It's also posted to the San Francisco Planning

1 Department's website.

2 And I mention that because that document has
3 made a preliminary analysis that identified these
4 resource areas as those that -- for which a potentially
5 significant impact could result from the project. So
6 you can see noise, air quality, transportation,
7 cultural resources, et cetera.

8 So the initial study did look at other
9 topics -- land use, aesthetics, wind and shadow. But
10 based on that analysis, it was determined that a
11 significant impact would not result. So, in other
12 words, this will be a focused EIR, and the initial
13 study will be attached to that to support why those
14 issues aren't being further addressed.

15 So that's it. If anybody has comments on
16 these other issues that are not shown here, you're
17 welcomed to make comments in that regard.

18 So here's the schedule. We're here tonight,
19 of course, with a public scoping meeting. The notice
20 of preparation, which I believe you may have all
21 received, this went out, published on the 16th. And
22 please note that the comment period ends on August
23 15th. So following that, we plan to publish a Draft
24 EIR for public review in early 2015 and then finalize
25 the EIR approximately next year, in summer 2015.

1 So, again, the meeting purpose is to hear
2 your comments on the scope of the EIR analysis that
3 we're drafting. So your comments, your local
4 perspective help us determine the scope and focus of
5 the issues to be addressed in the EIR and also are
6 helpful to us in identifying potentially significant
7 impacts.

8 We'll also consider any comments for our
9 approach to analysis and potentially identify project
10 alternatives that meet the objectives of the project
11 but potentially avoid impacts associated with our
12 proposed -- rather the PUC's proposed project. Excuse
13 me.

14 So after the PUC's presentation, which will be
15 next, we'll open up for public comments.

16 And, Barbara, are you ready?

17 So Barbara's going to describe the project to
18 you right now.

19 BARBARA PALACIOS: My name is Barbara Palacios.
20 I'm the project manager for the Westside Recycled Water
21 Project. The San Francisco Public Utilities Commission
22 is a public utility that provides drinking water to
23 2.4 million customers in the San Francisco Bay Area.
24 We serve counties in Alameda, Santa Clara, San Mateo,
25 and San Francisco County.

1 We supply water to 29 wholesale customers
2 throughout the Bay Area with about two thirds of our
3 supply going to these agencies and the remaining one
4 third coming directly to the customers in San
5 Francisco.

6 The PUC operates the Hetch Hetchy Regional
7 Water System, which is a complex network of tunnels,
8 pipelines and treatment plants that convey water to the
9 Bay Area. About 85 percent of our supply comes from
10 the Hetch Hetchy Reservoir. So everyone knows where
11 the Hetch Hetchy Reservoir is in Yosemite, Yosemite
12 Valley. The other 15 percent comes from local
13 watersheds in the East Bay -- Calaveras Reservoir and
14 our Crystal Springs Reservoir in the Peninsula as well.

15 PUC maintains 280 miles of large-diameter
16 pipelines, 60 miles of tunnels, two water treatment
17 plants and multiple reservoirs and pump stations to
18 deliver water to its wholesale and retail customers.

19 In 2008, we approved our Water System
20 Improvement Program, or WSIP, which is a
21 multibillion-dollar capital improvement program to
22 repair and upgrade this complex network so that it's
23 reliable during and after seismic events.

24 The Water System Improvement Program also
25 included projects to diversify our water supply,

1 including the development of local and regional
2 groundwater to supplement the drinking water supply and
3 the development of recycled water to serve non-potable,
4 non-drinking uses such as irrigation.

5 Recycled water is highly treated wastewater
6 that's undergone numerous treatment steps to make it
7 safe for use of non-drinking uses like irrigation,
8 toilet flushing, filling of lakes, wash down and
9 commercial and industrial uses. It's routinely
10 monitored to make sure that it's safe and meets various
11 water quality standards.

12 It's delivered through separate pipelines.
13 Often they're purple. We call them purple pipe. And
14 the separation of potable and purple pipe is an
15 additional parameter that's tested by the regulators to
16 make sure that there are no cross-connections.

17 Recycled water is extensively used around
18 California, and most of the our Bay Area neighboring
19 utilities are currently producing and delivering
20 recycled water.

21 For the Westside Project, we'll be taking
22 wastewater that is treated at the Oceanside Plant.
23 Wastewater undergoes a number of treatment steps,
24 primary and secondary treatment to produce what's
25 called secondary effluent. This is what's currently

1 being discharged to the ocean.

2 The project will take that secondary effluent
3 and treat it further with membrane filtration, reverse
4 osmosis and ultraviolet light disinfection. And that
5 produces recycled water. The treatment process and the
6 quality itself will be closely monitored to make sure
7 that we meet regulations and our water quality
8 objectives for the project.

9 Developing recycled water allows us to reduce
10 the use of drinking water for non-drinking uses. And
11 it's part of our approach for meeting our long-term
12 water demands. The City's commitment to recycled water
13 began in 1991, when the City passed the Recycled Water
14 Ordinance. And in 2009, that commitment to recycled
15 water was reinforced with amendments to the Park Code
16 that required the use of non-potable water in our City
17 parks when available.

18 This map provides an overview of the project.

19 The project will be producing an average of
20 1.6 million gallons per day of recycled water. We're
21 going to build a new treatment plant down at the
22 Oceanside Plant, which is just south of the zoo. The
23 treatment plant itself is going to have a capacity of
24 4 million gallons per day -- that 4 million gallons per
25 day represents the peak or the summertime demand, when

1 irrigation need is the highest -- 8.4 miles of pipeline
2 to pump the recycled water from the treatment plant up
3 to the proposed reservoir and storage facility in
4 Golden Gate Park and then transmit that water to Golden
5 Gate Park and the Presidio.

6 This shows where the Oceanside Plant is. If
7 you're not familiar, it's located just south of the zoo
8 between Skyline and the Great Highway. The plant would
9 be constructed completely within the footprint of
10 Oceanside. And we're building it over two stories so
11 that we have all the space that we need to fit all of
12 the components.

13 Again, the project also includes the
14 construction of a new reservoir and pump station in
15 Golden Gate Park. It's going to be located next to an
16 existing reservoir and pump station that are currently
17 pumping and storing groundwater that's being used for
18 the irrigation of Golden Gate Park. So our new
19 reservoir will be located adjacent to the existing, and
20 the new above-ground pump station will also be located
21 adjacent to the existing facility at this location.

22 So our proposed customers -- Golden Gate Park
23 is our main customer. We're going to be using recycled
24 water to irrigate the park as well as the Panhandle.
25 Recycled water will also be used to fill the lakes in

1 Golden Gate Park, the ornamental lakes, which are
2 connected to the irrigation system.

3 We're also hoping to serve recycled water to
4 the California Academy of Sciences for toilet flushing
5 as well as the irrigation of their green roof. And of
6 course we've got Lincoln Park Golf Course and the
7 Presidio Golf Course and the National Cemetery. We're
8 hoping to serve the zoo as part of the future expansion
9 of the project.

10 PUC is committed to recycled water.
11 Developing recycled water for non-drinking, non-potable
12 uses helping ensure that our water supply portfolio is
13 managed to provide reliable and high quality supply for
14 drinking.

15 STEVEN SMITH: Thank you, Barbara.

16 So we're at the public comment period. Is
17 anybody planning to provide any oral, verbal comments
18 tonight? And have you submitted -- have you filled out
19 a speaker card? I'm sorry.

20 KATHERINE HOWARD: I didn't. I will.

21 STEVEN SMITH: Maybe you could do that after?
22 Okay?

23 KATHERINE HOWARD: Sure.

24 STEVEN SMITH: If anybody else would like to
25 speak, I'd ask that you fill out the card.

1 Would you mind just taking a minute to do
2 that?

3 KATHERINE HOWARD: Not at all.

4 STEVE SMITH: Oh, thank you so much. Appreciate
5 it.

6 ALISA MOORE: Anybody else need a speaker card?

7 KATHERINE HOWARD: I have a question before I
8 speak.

9 Steve SMITH: Normally, the questions occur after.
10 If you want to put the question into your comments when
11 you speak, and we'll address it formally through the
12 EIR process...

13 KATHERINE HOWARD: Okay.

14 STEVEN SMITH: I promise I will answer any
15 questions afterwards.

16 KATHERINE HOWARD: Okay. Because the question
17 might affect my comment.

18 STEVEN SMITH: Go for it.

19 KATHERINE HOWARD: I just wondered, you said that
20 certain categories under the EIR are not included. And
21 I'm wondering if you could just repeat those. I didn't
22 catch --

23 STEVEN SMITH: Oh, yes. Well, the specific topics
24 that were screened out -- we could go by my memory, but
25 I'm probably better off checking my notes.

1 ALISA MOORE: Would you mind stating your name?

2 KATHERINE HOWARD: I'm sorry. Katherine Howard,
3 K-A-T-H-E-R-I-N-E, Howard, Golden Gate Park
4 Preservation Alliance.

5 STEVEN SMITH: So the specific topics are land
6 use, aesthetics, greenhouse gasses, wind and shadow,
7 recreation, utilities and services, public services,
8 biological resources with mitigation provided, hazards,
9 mineral/energy resources, and agricultural resources.

10 And there are copies of the -- as I mentioned,
11 that initial study is posted at the Planning
12 Department's website.

13 Yes? Katherine Howard?

14 We could be unsure of the number of speakers.
15 It says three minutes, but you're welcome to go beyond.

16 Are you okay standing up front?

17 KATHERINE HOWARD: Yes. Sure. So basically, my
18 name is Katherine Howard, and I'm with a group called
19 the Golden Gate Park Preservation Alliance.

20 And I want to state, first of all, that we
21 want to thank the PUC for being very responsive to the
22 neighborhood and to our concerns about Golden Gate Park
23 and moving the treatment plant out of its original
24 location in the park to the current location next to
25 the sewage plant down near the zoo.

1 I understand a lot of time and effort went
2 into that and, I'm sure, some expense and staff sweat.
3 And it's just -- it's just really wonderful that the
4 SFPUC appreciated Golden Gate Park and what we were
5 trying to do to protect it.

6 So I came here tonight to express that thanks
7 for myself and all the neighbors and all the meetings
8 we had talking about this.

9 I guess I would ask, in terms of the EIR, I
10 would like you to consider aesthetics and recreation.
11 And I'm not sure why it was left out -- if it's because
12 everything is below ground. But I think that those are
13 important things, since it is going into the park.

14 And also any impacts on the park and
15 especially trees in the park, since you're going to be
16 digging and tunnelling and hitting a lot of roots of
17 trees that have been there a while. We're always
18 trying to preserve our mature forest. And tree roots
19 can go out quite far. I won't give you my lecture on
20 tree roots. But two or three times the height of the
21 tree, you can find roots. That's the lecture.

22 So I think in terms of it, we just are
23 concerned about protecting as much of Golden Gate Park
24 as possible. And we appreciate all the effort that's
25 gone so far. And we hope that the EIR will go into

1 great detail on what happens inside Golden Gate Park
2 and the impacts on the park, the historic character of
3 the park, the aesthetics of the park, the wildlife in
4 the park, and of course the vegetation.

5 And that's it. Thank you.

6 STEVEN SMITH: Anyone else?

7 (No response)

8 STEVEN SMITH: Well, great. PUC will be around if
9 there's a question and answer that would be helpful.

10 JOAN GIRARDOT: May I make one comment, before you
11 close the public comment?

12 STEVE SMITH: Do you want it on the record?

13 JOAN GIRARDOT: Yes.

14 STEVE SMITH: Okay. Do you have a speaker card
15 filled out?

16 JOAN GIRARDOT: I will fill one out.

17 STEVE SMITH: We'd ask you do it beforehand. I'm
18 sorry.

19 Appreciate it.

20 JOAN GIRARDOT: Yeah, Joan Girardot. And I'm
21 chair of a committee with Coalition for San Francisco
22 Neighborhoods, and we'll be submitting written
23 comments.

24 But I had one quick comment, which is that, in
25 all of the environmental documents so far relating to

1 water, we have many of the measurements in acre feet.
2 And I would ask that, in this EIR, that any reference
3 to acre feet also compute in cubic feet and in gallons
4 so that the citizen has some ability to translate that
5 because they don't carry around in their head how many
6 gallons are in an acre foot, how many cubic feet are in
7 an acre foot, and one unit of water being 100 cubic
8 feet. Thank you.

9 STEVEN SMITH: Great. Just, again, written
10 comments are accepted through August 15th, and there's
11 comment forms here tonight if you'd like to fill one
12 out. But also the materials at the table here provide
13 the e-mail address, the written address, fax, if
14 anybody prefers fax.

15 But please keep that date in mind, August 15th
16 at 5:00 p.m. And here is my contact information after
17 tonight. I think the meeting materials also include
18 that. Feel free to call me, particularly if it's about
19 the environmental review process. Scott MacPherson is
20 also a great contact in terms of the project
21 description and particulars of the project. But either
22 one of us will do our best to answer any questions you
23 may have. So thanks, everybody. Appreciate your
24 coming out tonight.

25 (Proceedings concluded at 7:11 o'clock p.m.)

1 STATE OF CALIFORNIA)
2 COUNTY OF MARIN) ss.

3 I, DEBORAH FUQUA, a Certified Shorthand
4 Reporter of the State of California, do hereby certify
5 that the foregoing proceedings were reported by me, a
6 disinterested person, and thereafter transcribed under
7 my direction into typewriting and is a true and correct
8 transcription of said proceedings.

9 I further certify that I am not of counsel or
10 attorney for either or any of the parties in the
11 foregoing proceeding and caption named, nor in any way
12 interested in the outcome of the cause named in said
13 caption.

14 Dated the 14th day of August, 2014.

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DEBORAH FUQUA

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CSR NO. 12948

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APPENDIX D

Comments Received During EIR Scoping Process



United States Department of the Interior

NATIONAL PARK SERVICE
Golden Gate National Recreation Area
Fort Mason, San Francisco, California 94123

IN REPLY REFER TO
L76 (GOGA-PLAN)

AUG 15 2014

Sarah Jones
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Re: National Park Service Comments on the Westside Recycled Water Project

Dear Ms. Jones:

The National Park Service (NPS) submits the following scoping comments on the San Francisco Public Utilities Commission (SFPUC) Westside Recycled Water Project, which is a component of the SFPUC Water System Improvement Program (WSIP). We have an interest in this project because improvements are proposed for areas that lie adjacent to lands managed by NPS.

As described in the Notice of Preparation, this project would provide recycled water from SFPUC's Oceanside Water Pollution Control Plant (WPCP) to irrigate the areas of Lincoln Park/Lincoln Park Golf Course (Lincoln Park), the Presidio Golf Course, and other irrigated locations within the Presidio, including the Public Health Service District and the National Cemetery. The potential run-off from these areas would flow into locations managed by NPS, including Lobos Creek and Crissy Marsh.

NPS supports SFPUC's water conservation efforts and implementation of irrigation practices that minimize water use. We encourage careful monitoring of application and operations to minimize the run-off outside the targeted irrigated areas. We are concerned with run-off because of the potential for recycled water to contain Contaminants of Emerging Concern (CEC) that may escape treatment. CEC, including pharmaceuticals and hormones, have negative effects on aquatic resources and human health. Run-off from recycled water irrigation could enter surface or groundwater adjacent to irrigated areas.

Please ensure your impact analysis includes water quality CEC assessment for wetlands and biological resources (biological resources both aquatic and terrestrial for areas within the project area), and areas that would receive recycled water run-off (e.g. adjacent areas including Mountain Lake, Lobos Creek, and Crissy Marsh). Please describe in the EIR assessment how well treatment addresses CEC quantity that would be in the recycled water. Also, the project should include a baseline water quality/biological CEC monitoring pre-project, and then commit to an on-going monitoring program.

Thank you for the opportunity to comment on this proposal. Please direct questions or concerns to Steve Ortega, Planning and Compliance, at (415) 561-4955 or steve_ortega@nps.gov.

Sincerely,

Nancy Hornor
Chief, Planning Division



103 Montgomery Street
P.O. Box 29052
San Francisco, CA 94129 0052
T (415) 561-5300
www.presidio.gov

August 14, 2014

Ms. Sarah B. Jones, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Re: San Francisco Westside Recycled Water Project

Dear Ms. Jones,

Thank you for the opportunity to review and comment on the July 16, 2014 Notice of Preparation (NOP) of an Environmental Impact Report (EIR) and associated Initial Study for the San Francisco Public Utility Commission's (SFPUC) Westside Recycled Water Project. The Presidio Trust (Trust) supports the SFPUC's efforts to bring recycled water to San Francisco. This is a challenging yet important project to ensure that there are sufficient long term water supplies while also minimizing potential environmental effects.

The Trust is the federal agency charged with protection and management of the 1,168-acre inland portion of the Presidio known as Area B. The Trust is rehabilitating and reactivating the former Army post's historic buildings and landscapes as a part of the nation's largest and most visited national park in an urban area. The Trust's mission is to preserve and enhance the cultural, natural, scenic, and recreational resources of the Presidio for public use in perpetuity, and to achieve long-term financial sustainability. The Trust generates revenues by leasing the park's historic and non-historic buildings. All revenues are used to support park operations, resource protection, and park enhancement projects. The three areas within the Presidio identified for service from the Westside Project are within Area B. The Public Health Service District and Presidio Golf Course are within the Trust's jurisdiction while the National Cemetery is managed by the U. S. Department of Veterans Affairs. The Trust would implement the portion of the project serving proposed sites for recycled water irrigation within the Presidio.

The following are the Trust's comments on the NOP and Initial Study.

The NOP identified the Presidio Golf Course and Public Health Service District as proposed sites for recycled water irrigation. Both these sites are within the Lobos Creek watershed. Lobos Creek is the potable water supply for the Presidio and the State Water Resources Control Board (formerly the Department of Public Health) has stipulated in the Trust's water supply permit that recycled water cannot be used within the Lobos Creek watershed due to water quality concerns. The EIR should address the removal of this stipulation from the permit in order for recycled water to be used at these locations.

The NOP indicates that a storage facility within the Presidio is no longer proposed. The EIR should confirm that additional pumping facilities would also not be needed within the Presidio to distribute the recycled water from the Presidio boundary to the three identified use sites.

All three proposed use sites drain to water bodies within the Presidio including Mountain Lake, Lobos Creek and Crissy Marsh. The EIR should include site-specific evaluation of the use of recycled water at the three identified sites to confirm the appropriateness of the sites for recycled water use and that the water bodies tributary to the site would not be affected by nutrients, constituents of emerging concern or other constituents in the recycled water.

Please feel free to call Mark Hurley, Trust Associate Director for Infrastructure Management, at 561-7601 to engage his participation in your water planning efforts.

Sincerely,



Craig Middleton
Executive Director



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

AUG 06 2014

Steven H. Smith
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Dear Mr. Smith:

NOTICE OF PREPARATION (NOP) FOR SAN FRANCISCO (CITY/COUNTY); SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT (PROJECT); SAN FRANCISCO COUNTY; STATE CLEARINGHOUSE NO. 2008052133

We understand that the City/County may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the preparation of the California Environmental Quality Act (CEQA) for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 20-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:

www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, Ca 95812-0100 | www.waterboards.ca.gov

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The City/County will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106 and the State Water Board must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. The City/County must retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stdns_9.htm) to prepare a Section 106 compliance report.

Note that the City/County will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond the Project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all environmental requirements please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf):

- A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- B. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.

- C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
- F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.
- G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following the preparation of the draft CEQA document for the Project, please provide us a copy of the document to review if the City/County is considering CWSRF financing. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review for the Project.

Thank you for the providing us a copy of your NOP, and the consideration of the CWSRF for the financing of the City/County's Project. If you have any questions or concerns, please feel free to contact me at (916) 341-5855, or by email at Ahmad.Kashkoli@waterboards.ca.gov, or contact Vicki Lin at (916) 341-7388, or by email at Vicki.Lin@waterboards.ca.gov.

Sincerely,



Ahmad Kashkoli
Senior Environmental Scientist

cc: State Clearinghouse
(Re: SCH# 2008052133)
P.O. Box 3044
Sacramento, CA 95812-3044

National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires an analysis of the effects on "historic properties." The Section 106 process is designed to accommodate historic preservation concerns for federal actions with the potential to affect historic properties. Early consultation with appropriate government agencies, Indian tribes, and members of the public, will ensure that their views and concerns are addressed during the planning phase.

Historic properties (i.e., buildings, structures, objects, and archaeological sites 50 years or older) are properties that are included in the National Register of Historic Places or meet the criteria for the National Register.

Required Documents:

- ✓ A draft State Historic Preservation Officer consultation request letter; and
- ✓ A cultural resources report on historic properties conducted according to the Secretary of the Interior's Standards, including:
 - A clearly defined Area of Potential Effect (APE), specifying the length, width, and depth of excavation, with a map clearly illustrating the project APE;
 - A records search, less than one year old, extending to a half-mile beyond the project APE;
 - Written description of field methods;
 - Identification and evaluation of historic properties within the project's APE; and
 - Documentation of consultation with the Native American Heritage Commission and local Native American tribes.

ADDITIONAL INFORMATION

If your project has the potential to affect biological resources or historic properties, the consultation process can be lengthy. Please contact the State Water Board staff early in your planning process to discuss what additional information may be needed for your specific project.

Please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at (916) 341-5855 or Ahmad.Kashkoli@waterboards.ca.gov for more information related to the CWSRF Program environmental review process and requirements.

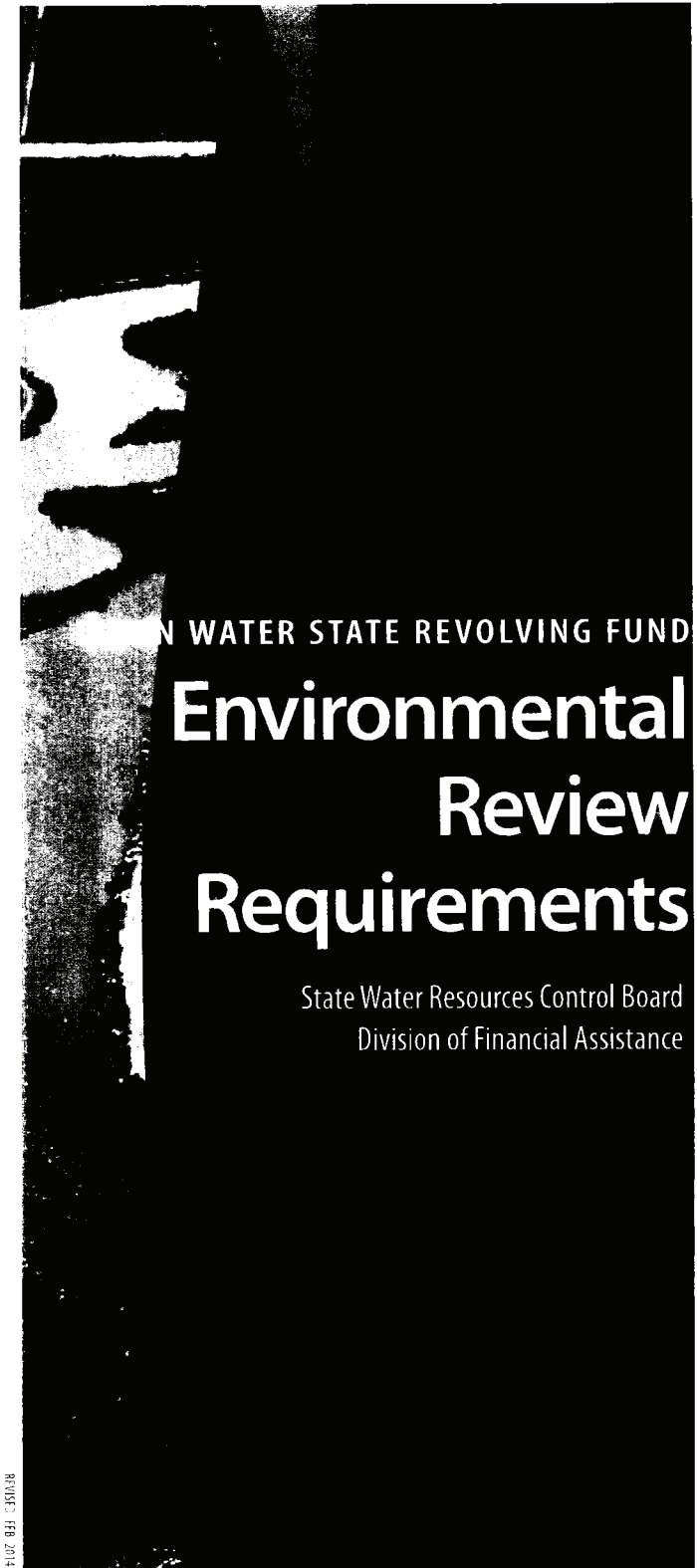


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CLEAN WATER STATE REVOLVING FUND

Environmental Review Requirements

State Water Resources Control Board
Division of Financial Assistance

ENVIRONMENTAL REVIEW REQUIREMENTS

The Clean Water State Revolving Fund (CWSRF) Program is partially funded by the United States Environmental Protection Agency (EPA), and is subject to federal environmental regulations as well as the California Environmental Quality Act (CEQA).

All applicants seeking CWSRF financing must comply with both CEQA and the federal cross-cutting regulations. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF financing. The forms and instructions are available at: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml.

Lead Agency/Applicant

The applicant will generally act as the "Lead Agency" for environmental review. It will prepare, circulate, and consider the environmental documents prior to approving the project. It also provides the State Water Board with copies of the CEQA documents, and a completed "Environmental Evaluation Form for Environmental Review and Federal Coordination" (http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf) with supporting documents as part of the "Environmental Package."

Responsible Agency/State Water Board

The State Water Board acts on behalf of EPA to review and consider the environmental documents before approving financing. The State Water Board may require additional studies or documentation to make its own CEQA findings, as well as circulate CEQA documents and other environmental reports to relevant federal agencies for consultation before making a determination about the project financing.

The Applicant must address all relevant federal agencies' comments before project financing is approved.

FEDERAL CROSS-CUTTING REGULATIONS

The CWSRF Program requires consultation with relevant federal agencies on the following federal environmental regulations, if applicable to the project:

- Clean Air Act
- Coastal Barriers Resources Act
- Coastal Zone Management Act
- Endangered Species Act
- Environmental Justice
- Farmland Protection Policy Act
- Floodplain Management
- Magnuson-Stevens Fishery Conservation and Management Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Protection of Wetlands
- Safe Drinking Water Act, Sole Source Aquifer Protection
- Wild and Scenic Rivers Act

The following is a brief overview of requirements for some of the key regulations.

Clean Air Act (CAA)

The CAA general conformity analysis only applies to projects in areas not meeting the National Ambient Air Quality Standards or subject to a maintenance plan.

If project emissions are below the federal "de minimis" levels then:

- A general conformity analysis is not required.

If project emissions are above the federal "de minimis" levels then:

- A general conformity determination for the project must be made. A general conformity determination can be made if facilities are sized to meet the needs of current population projections used in an approved State Implementation Plan for air quality.

- Using population projections, applicants must explain how the proposed capacity increase was calculated.

An air quality modeling analysis is necessary of all projects for the following criteria pollutants, regardless of attainment status:

- Carbon monoxide
- Lead
- Oxides of nitrogen
- Ozone
- Particulate matter (PM2.5 and PM10)
- Sulfur dioxide

Endangered Species Act (ESA)

The ESA requires an analysis of the effects on federally listed species. The State Water Board will determine the project's potential effects on federally listed species, and will initiate informal/formal consultation with the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service, as necessary under Section 7 of the ESA.

Required Documents:

- ✓ A species list, less than one year old, from the USFWS and the California Department of Fish and Wildlife's Natural Diversity Database;
- ✓ A biological survey conducted during the appropriate time of year;
- ✓ Maps or documents (biological reports or biological assessments, if necessary); and
- ✓ An assessment of the direct or indirect impacts to any federally listed species and/or critical habitat. If no effects are expected, explain why and provide the supporting evidence.



California Environmental Quality Act Requirements

State Water Resources Control Board
Division of Financial Assistance

The State Water Resources Control Board (State Water Board), Division of Financial Assistance, administers the Clean Water State Revolving Fund (CWSRF) Program. The CWSRF Program is partially funded by grants from the United States Environmental Protection Agency. All applicants seeking CWSRF financing must comply with the California Environmental Quality Act (CEQA), and provide sufficient information so that the State Water Board can document compliance with federal environmental laws. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF Program financing. It is available at:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml



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to keep California's **water clean.**
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Contact Information: For more information related to the CWSRF Program environmental review process and requirements, please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

LEAD AGENCY

The applicant is usually the "Lead Agency" and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the "Lead Agency" under CEQA. If a project will be completed by a non-governmental organization, "Lead Agency" responsibility goes to the first public agency providing discretionary approval for the project.

RESPONSIBLE AGENCY

The State Water Board is generally a "Responsible Agency" under CEQA. As a "Responsible Agency," the State Water Board must make findings based on information provided by the "Lead Agency" before financing a project.

ENVIRONMENTAL REVIEW

The State Water Board's environmental review of the project's compliance with both CEQA and federal cross-cutting regulations must be completed before a project can be financed by the CWSRF Program.

DOCUMENT REVIEW

Applicants are encouraged to consult with State Water Board staff early during preparation of CEQA document if considering CWSRF financing. Applicants shall also send their environmental documents to the State Water Board, Environmental Review Unit during the CEQA public review period. This way, any environmental concerns can be addressed early in the process.

REQUIRED DOCUMENTS

The Environmental Review Unit requires the documents listed below to make findings and complete its environmental review. Once the State Water Board receives all the required documents and makes its own findings, the environmental review for the project will be complete.

- ✓ Draft and Final Environmental Documents: Environmental Impact Report, Negative Declaration, and Mitigated Negative Declaration as appropriate to the project
- ✓ Resolution adopting/certifying the environmental document, making CEQA findings, and approving the project
- ✓ All comments received during the public review period and the "Lead Agency's" responses to those comments
- ✓ Adopted Mitigation Monitoring and Reporting Plan, if applicable
- ✓ Date-stamped copy of the Notice of Determination or Notice of Exemption filed with the County Clerk(s) and the Governor's Office of Planning and Research
- ✓ CWSRF Evaluation Form for Environmental Review and Federal Coordination with supporting documents



Basic Criteria for Cultural Resources Report Preparation

State Water Resources Control Board
Division of Financial Assistance

For Section 106 Consultation with the State Historic Preservation Officer (SHPO)
under the National Historic Preservation Act

CULTURAL RESOURCES REPORT

The Cultural Resources Report must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards. Please see the Professional Qualifications Standards at the following website at: http://www.cr.nps.gov/local-law/arch_stnds_9.htm

The Cultural Resources Report should include one of the four "findings" listed in Section 106. These include:

"No historic properties affected"

(no properties are within the area of potential effect (APE; including below the ground).

"No effect to historic properties"

(properties may be near the APE, but the project will not have any adverse effects).

"No adverse effect to historic properties"

(the project may affect "historic properties", but the effects will not be adverse).

"Adverse effect to historic properties"

Note: Consultation with the SHPO will be required if a "no adverse effect to historic properties" or an "adverse effect to historic properties" determination is made, to develop and evaluate alternatives or modifications to the proposed project that could avoid, minimize or mitigate adverse effects on "historic properties."

RECORDS SEARCH

- A records search (less than one year old) extending to a half-mile beyond the project APE from a geographically appropriate Information Center is required. The records search should include maps that show all recorded sites and surveys in relation to the APE for the proposed project, and copies of the confidential site records included as an appendix to the Cultural Resources Report.
- The APE is three-dimensional (depth, length and width) and all areas (e.g., new construction, easements, staging areas, and access roads) directly affected by the proposed project.



NATIVE AMERICAN and INTERESTED PARTY CONSULTATION

- Native American and interested party consultation should be initiated at the planning phase of the proposed project to gather information to assist with the preparation of an adequate Cultural Resources Report.
- The Native American Heritage Commission (NAHC) must be contacted to obtain documentation of a search of the Sacred Lands Files for or near the project APE.
- All local Native American tribal organizations or individuals identified by the NAHC must be contacted by certified mail, and the letter should include a map and a description of the proposed project.
- Follow-up contact should be made by telephone and a phone log maintained to document the contacts and responses.
- Letters of inquiry seeking historical information on the project area and local vicinity should be sent to local historical societies, preservation organizations, or individual members of the public with a demonstrated interest in the proposed project.

Copies of all documents mentioned above (project description, map, phone log and letters sent to the NAHC and Native American tribal organizations or individuals and interested parties) must be included in the Cultural Resources Report.

Contact Information: For more information related to the CWSRF Program Cultural Resources and Requirements, please contact Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

PRECAUTIONS

A finding of **“no known resources”** without supporting evidence is unacceptable. The Cultural Resources Report must identify resources within the APE or demonstrate with sufficient evidence that none are present.

“The area is sensitive for buried archaeological resources,” followed by a statement that **“monitoring is recommended.”** Monitoring is not an acceptable option without good-faith effort to demonstrate that no known resource is present.

If **“the area is already disturbed by previous construction”** documentation is still required to demonstrate that the proposed project will not affect “historic properties.” An existing road can be protecting a buried archaeological deposit or may itself be a “historic property.” Additionally, previous construction may have impacted an archaeological site that has not been previously documented.

SHPO CONSULTATION LETTER

Submit a draft consultation letter prepared by the qualified researcher with the Cultural Resources Report to the State Water Resources Control Board. A draft consultation letter template is available for download on the State Water Board webpage at: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/cwsrf_requirements.shtml





2945 Ulloa St.
San Francisco, CA 94116
August 9, 2014

Steven H. Smith
San Francisco Planning Department
1650 Mission St., Suite 400
San Francisco, CA 94103-2479

Re: Case No. 2008.0091.E San Francisco Westside Recycled Water Project; Notice of Preparation of an Environmental Impact Report and Initial Study

First of two comment letters.

Dear Mr. Smith:

The Golden Gate Audubon Society (GGAS), representing about 6000 members, is very pleased to support the Westside Recycled Water Project (the project).

Since it appears we will be unable to meet the comment deadline, we are submitting part of our commentary early. In our view, the most significant potential impact on wildlife from this project is to the Great Blue Heron and Double-crested Cormorant colony located on the west shore of North Lake Merced just north of Harding Drive and across Skyline Blvd. We have a number of other concerns, but the potential impact on 1 to 5 heron nests and 40 to 60 cormorant nests is one we feel we must bring to the attention of the Planning Department. Potential impacts to this single colonial waterbird nesting site supersedes all others from this project. It needs to be dealt with in such a way that mitigation other than timing the project outside the nesting season and laying the pipeline along the west side of Skyline Blvd will be the only corrective actions necessary.

COLONIAL WATERBIRD POTENTIAL IMPACTS

Recycled Water Treatment Plant to Golden Gate Park p. 14

Since the project involves installing a pipeline along Skyline Blvd. to Sloat Blvd., measures must be taken to avoid impacts on the heron and cormorant colony located on the west shore of Lake Merced approximately across Skyline Blvd. from the Janet Pomory Center. This is the only part of the proposed project route that would impact a significant waterbird colony. The major impacts on the colony are likely to be construction noise and tree trimming or removal. The easiest way to mitigate those impacts would be to lay the pipe on Skyline Blvd. during the period of September through December. Activity in the colony generally starts in early January and continues through August.

Since much of this project route will be along tree lined streets and through wooded parklands, it will be necessary to employ a trained biologist to locate raptor nests and assure construction does not interfere with nesting success. Night lighting should not be used within 100 ft. of any raptor nest or adjacent to the North Lake Merced heron and cormorant colony.

p. 17 Although the construction time for “any one location” is approximately 2 weeks, this is the single location that needs much more specific detail. The document needs to state that

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construction in this area will take place when the North Lake heron and cormorant colony is inactive.

The document is inadequate in terms of biological impacts. For example, the work adjacent to the North Lake Merced heron and cormorant colony is likely to be undertaken early in the project cycle. The document needs to state the conditions under which that segment of work may take place. It should not begin if birds are on the nests in the colony. Since that colony is monitored each nesting season, its activity level can be ascertained at any time between December and August. The colony is presently in decline, but it continues to be used by significant numbers of birds. Since the most likely cause of the decline is human disturbance, adding the disturbance caused by this project could well cause the colony to be abandoned.

p. 18 In the case of trimming trees adjacent to the North Lake Merced heron and cormorant colony, the window for the nesting season must be moved forward to early January. We urge the department to route the pipeline far enough from the west shore of Lake Merced so no trees need to be removed from the east side of Skyline Blvd. In fact, that would do much to reduce any potential impacts on the colony and should be considered in the mitigation section regarding the colony.

6. Noise p.39

Our primary concern with noise is in reference to the heron and cormorant colony located along the west end of Lake Merced. According to the requirement that branches and trees that overhang the pipeline route must be removed, the noise level of that work could cause severe impacts to an active colonial waterbird colony. The simple means of avoiding that is to do all tree work on Skyline Blvd. west of Lake Merced between September and mid January. If tree trimming takes place during the nesting season it should be limited and done as quickly as possible. Chipping branches or trees should take place off site to reduce impacts to birds. Several years ago the Recreation and Park Department had to remove a tree that threatened to fall across Skyline Blvd. during the middle of the nesting season. Removal of the tree did cause massive disruption to the colony. In fact the colony was abandoned during the work. On-site work started about 9 a.m. and ended by about noon. Chipping the tree segments took place off site and wasn't a problem. By late that afternoon the cormorants and remaining herons had returned to their nests. However, conditions have changed so dramatically at the colony that it is probable that if a number of trees are trimmed or actually removed, the disturbance would very likely cause abandonment of the colony. That is a significant impact that can only be mitigated by adjusting the timing of the project. This document should require that tree trimming and removal along Skyline Blvd adjacent to the heron and cormorant colony should take place outside the period of nesting activity.

We did not see whether noise associated with trucks working this project was addressed. Given the amount of traffic on Skyline Blvd., and the amount of noise dragon boat racers make directly under the nesting trees, we do not believe noise from trucks will be significant.

Impact BI-1 p. 71

The heron and cormorant colony at North Lake Merced is generally active by mid January. Great Blue Herons are generally sitting on nests by February 1. Double-crested Cormorants are usually in the colony by some time in early February. They remain there through August and sometimes into October. Most activity ends in September. A Great Blue Heron nest was found on August 2, 2014, at the Mesa colony, about a mile east of the the project site. The nest has 2 stage-3 chicks. That means the chicks are about half grown. Their plumage is predominately down, but juvenal plumage is replacing it rapidly. They do not yet have any flight feathers. Those will develop in stage 4. If the chicks survive those birds will probably remain in the nest until some time in

September. This late in the season the adults are very anxious to leave their nests even if the chicks are healthy. Disturbance could be a critical factor in determining whether the adults continue to attend to the nest or to abandon it. The Mesa colony is far enough from the project site so we are not concerned about it. But the North Lake colony is likely to be active during the time parameters known for other colonies in the area.

Given the length of the heron and cormorant nesting season the mitigation measures presented seem completely inadequate. This really should not be a major obstacle for this project. The only mitigation that should be necessary is to do the work along Skyline Blvd. some time after the birds finish breeding in September and before they return to the colony in January. With a 2-week time frame for work in this area that should simply be included in the contract. As to tree trimming, we mentioned previously that the least harmful site for the pipeline is on the west side of Skyline. Trimming on the east side of the highway would necessitate removing branches and perhaps cutting trees in the colony grove. Trimming the branches of eucalyptus trees that are part of the colony should be done with the advice of an arborist who is qualified to determine whether any tree showing damage from nesting herons and cormorants can withstand the stress of trimming. If the trimming would over stress the tree, that tree should not be trimmed. No trees in that colony should be removed.

In as much as this reviewer will be monitoring the heron and cormorant colonies at Lake Merced during coming years, the Planning Department, the PUC or the contractor can feel free to contact me for up to date information.

Thank you for the opportunity to comment on this project. To reiterate, we are very supportive of efforts to provide recycled water for use in our parks and open spaces. We hope this is the first of several projects that will make recycled water a viable alternative to the use of potable water in our parks, playing fields, major boulevards and other open spaces. We hope that our suggestions will help avoid any negative impacts to herons and cormorants at Lake Merced.

Very truly yours,

Dan Murphy
Golden Gate Audubon Society
Conservation Committee
murphsf@comcast.net



2945 Ulloa St.
San Francisco, CA 94116
August 17, 2014

Steven H. Smith
San Francisco Planning Department
1650 Mission St., Suite 400
San Francisco, CA 94103-2479
Steve.Smith@sfgov.org

Re: Case No. 2008.0091.E San Francisco Westside Recycled Water Project; Notice of Preparation of an Environmental Impact Report and Initial Study

Second of two comment letters.

Dear Mr. Smith:

The Golden Gate Audubon Society (GGAS), representing about 6000 members, is very pleased to support the Westside Recycled Water Project (the project).

This second comment letter is in reference to the Notice of Preparation of an EIR and Initial Study for the San Francisco Westside Recycled Water Project. Our comments specific to the North Lake Merced heron and cormorant colony are in the first letter.

DELIVERY SYSTEM

A.1 Project Background and Overview (p. 1)

GGAS agrees that there is an immediate need for the City and County of San Francisco to reduce its reliance for potable water and that the use of highly treated recycled water (HTRW) is an excellent way to do so. We do not concur that this project meets the current water demands of several SFPUC customers. In fact this project only meets some of the demands of those departments and agencies. There remains the need to provide recycled water for many smaller parks and playgrounds in the project area. There are approximately 10 miles of streets within the project area (Sunset Blvd., Lower Great Highway, Sloat Blvd., and Park Presidio Blvd.) that should eventually receive HTRW. There are several schools, both public and private that could utilize recycled water on their grounds. We look forward to supporting extension of this first HTRW system to those SFPUC customers.

A.2.5 Recycled Water Demand (pp. 5,6)

Given the irrigated sites mentioned in our comments regarding A.1, it would seem prudent to create a greater capacity for HTRW. With diminishing potable water resources available to the SFPUC, and with increasing demand, utilizing HTRW in most of San Francisco's public and private larger irrigated areas will be necessary in the foreseeable future. Since there are several references to "the project as now proposed", there is a suggestion that it could change. It would seem increasing delivery capacity now would be an element that could be cost effective during the life of the delivery system and could speed future delivery projects within the Westside areas of the Water System Improvement Program (WSIP). Should a greater carrying capacity for this system not be included in this project, we urge the SFPUC to use the largest diameter pipes

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discussed in this document. At least then there is some capacity for increasing delivery without installing an entirely new system of pipes.

AESTHETICS

A.5.1 and .2 Oceanside WPCP and Golden Gate Park Central Reservoir

GGAS is concerned about the visibility of structures being built for this project. Had we realized that the entrances to the Oceanside WPCP would be so highly visible and out of place in that environment, we would have objected to them when we commented on that project many years ago. At this point we want to urge the SFPUC to construct any facilities, particularly the above ground elements of the Golden Gate Park Central Reservoir in such a way that they can be screened by vegetation. We object to the inclusion of any more bare concrete walls that mar the entrances to the Oceanside WPCP. This is particularly important at the 20 foot tall pump station in Golden Gate Park (p 12). We would prefer the structure be lower, but regardless it must be screened if for no other reason than aesthetics.

Recycled Water Treatment Plant Facilities at the Oceanside WPCP Site p. 13

Given the proposed 40 to 45 foot height of the new structure, we still assume the building would not be visible from adjacent open space or roadways. If it is visible we urge that the building be constructed in such a way that it can be masked with vegetation. Though GGAS most often suggests the use of native vegetation, in this case it may be necessary to use exotic vegetation. If that is the case, it should be something that is known not to be invasive and that will not spread beyond the project site.

Distribution Pumps p. 14 All pumps housed in buildings above ground should be within structures that are either screened by or enhanced by vegetation. Low growing native trees and shrubs may be appropriate for this. Use of such vegetation could not only enhance the aesthetics of the structures, but could add to the mitigation that will be necessary to offset loss of vegetation from various elements of construction.

p. 20 Proposed Green Building Features

While we applaud the plan to meet LEED Gold Standards in the construction of buildings associated with this project, we do want to point out that the LEED standard does not meet environmental needs of wildlife. A vegetation plan for each new building should be developed and incorporated with this section of the EIR.

E. Evaluation of Environmental Effects p. 28

2. Aesthetics. Impact AE-1 p33,34

There are two potential aesthetic impacts that could be significant. First is the west end of Lake Merced. Depending on the exact alignment of the pipeline on Skyline Blvd. north of Westside Water Treatment Plant and Herbst Rd., there could be a need to remove trees along the edge of Lake Merced. That would create a new view scape from the Boathouse Picnic Area and Harding Golf Course to traffic on Skyline Blvd. That impact needs to be identified and needs to be avoided.

GGAS disagrees that mitigation is not required. (p. 34) Mitigation for reducing impacts to the western shoreline of Lake Merced is to site the Skyline segment of the pipeline along the west side of Skyline Blvd. That would eliminate any potential impact on the viewscape from the east.

The other aesthetic impact would be at sites where structures are constructed above ground. If the pump house at the Harding Golf Course Maintenance Yard is an example of a suitable

aesthetic upgrade, it fails. While the H20 bricks are whimsical and definitely artistic, they do nothing to offset the appearance of the concrete blockhouse. We can do better by incorporating screening vegetation either planted in front of structures or by being built into the walls or roofs of structures. This comment is directed specifically at the 20 ft. new pump station that would be built in the maintenance area in Golden Gate Park. Creative design can eliminate the “hard features” of the pump station and should be part of this project. Perhaps incorporation of a green roof, much like the one at the California Academy of Sciences would serve that purpose. Any other structures that are visible to the public need similar screening.

Again, we think mitigation (p. 34) for above ground structures can be accomplished by simply incorporating vegetation to screen structures.

Impact AE-2 p. 34, The proposed project would not result in a substantial source of light and glare.

We disagree that there will be no lighting impacts and that mitigation is not necessary. Any additional lighting that is allowed to disburse will have an impact on wildlife and on dark skies. The finished project should use only fully shielded fixtures to avoid further polluting the night sky and from impacting wildlife in nearby trees. The use of appropriate fixtures and low wattage bulbs should be a requirement for all permanent lighting for the project.

6. Noise p.39

Raptor nests should be identified along the project route and work near them should be postponed until nesting birds leave the nest. Chipping branches or entire trees near such nests should be specifically prohibited.

WILDLIFE

p. 62 Observed Wildlife habitat in Project Area

The sighting of **Spotted Towhee** in the Oceanside WPCP is of local significance. During the past 5 years, an average of 37.4 Spotted Towhees have been found on the San Francisco Christmas Bird Count. The vast majority of those were in the northernmost part of the San Francisco Peninsula Watershed and on San Bruno Mountain. Within the City itself they are nearly extirpated. If habitat for this species can be preserved within the project work area it should be. If more than one Spotted Towhee was seen, and if it's habitat will be removed, it would be prudent to plant some habitat appropriate vegetation near that project site prior to the start of the project so the birds have somewhere to go.

Golden Gate Park does not provide “...suitable nesting and foraging habitat for raptors such as... **merlin (Falco columbarius)**, and **American kestrel (Falco sparverius)**. **Merlin** records for Golden Gate Park are limited to a very few migratory sightings. There are no breeding records for this species in California or even other nearby states. (The Sibley Guide to Birds; 2nd Edition 2014, range map p. 326). They are rare to uncommon in Northern California when they are present between late September and the last week of April. Stragglers have been noted as late as early June and as early as the end of August. (Birds of Northern California, p 24). **American Kestrel** hasn't been present in Golden Gate Park in many years. They are in very severe trouble throughout their range. Only 1 or 2 are thought to occur in San Francisco. Christmas Bird Count data for the past 5 years indicates we have an average population of 24 on the peninsula north of San Bruno. Most of those are in San Mateo County. This species was once common in San Francisco and did in fact nest at Lake Merced and in Golden Gate Park. That is no longer the case. Reference to both these species should be dropped.

p. 70 One wonders about the source of information presented in this document about birds. Nesting of herons and egrets has been documented at Lake Merced through surveys sponsored by the San Francisco Bay Bird Observatory. There are no records for **Great Egret** nesting at Lake Merced or Golden Gate Park. There are no records for **Black-crowned Night Herons** nesting at the lake either. To say they may breed there begs the question of what the basis may be for such a presumption. This species is present at the San Francisco Zoo during the nesting season, but there are no reported nesting records there. Single adult birds have been seen in the Impound Lake, flying past the South Lake colony, and at Stow Lake in Golden Gate Park, but as a colonial species with fairly obvious nests, nesting has not been confirmed at any of those sites. **Green Herons**, a non colonial heron species, do nest at Lake Merced, but to date there are no records for them breeding in Golden Gate Park. Again, there is virtually no potential for merlins to breed anywhere in San Francisco or for anywhere within about 800 miles. The wetlands of Lake Merced are not adequate to support a **Northern Harrier** nest and there are no nesting records for that species in San Francisco. They do breed in San Mateo, Marin and Alameda Counties. Virtually all San Francisco records for that species are for migrating birds in spring and fall. **White-tailed Kite** has occurred at Lake Merced on a few occasions. Single birds are more frequently found at Fort Funston as winter residents. Their preferred habitat is coastal prairie, and very low scrub with a lot of openings where they can kite and swoop down on prey. Wetlands dominated by bulrush that is as tall as 12 feet does not meet their needs.

Yellow-headed Blackbird is not known to nest at Lake Merced. Again, what is the source of this record? Yellow-headed Blackbird is a rare vagrant to San Francisco. During fall and winter in this area they most frequently occur in large mixed blackbird flocks such as those that formerly occurred in the Buffalo Paddock of Golden Gate Park. This species is loosely colonial and would definitely be seen if it nested at the lake. There was no mention of **Tricolored Blackbird**, another species that does not nest at the lake, but does occur in very small numbers between September and December. It occurs annually, unlike Yellow-headed Blackbird which is seen in San Francisco about once every 5 or more years. Our first record this year was in July on the South Lake. Contrary to what is stated in this document, **Bank Swallows** do not nest in sand dunes. They do nest at Fort Funston, but in the cliffs facing the ocean. They burrow into the consolidated sand cliffs and build nests there.

There is a reason this reviewer is so critical of errors in this document. Having reviewed this and another planning document regarding work at the Pacific Rod and Gun Club site, not to mention any number of others, I frequently find errors that have no basis in fact regarding the breeding status of birds, their migratory and wintering status and their habitat use. This is a serious problem, because if such errors end up in final or adopted versions of planning documents, there can be an assumption on the part of those who may refer to such documents to treat that information as valid. GGAS suggests that it is time to implement a mitigation measure for those who write such planning documents. They should provide specific documentation for records of wildlife. The information is easily obtained from sources like eBird, Christmas Bird Count records, and any number of local wildlife references. The error regarding **Merlins** breeding in San Francisco could be checked by referring to the range map in any field guide to birds that covers western North America. When we see sloppy work like this and what we saw in the gun club Mitigated Negative Declaration, we wonder what other errors pass through without notice.

The list of resources and agencies that could contribute to an analysis of bird life in this project site is inadequate. There is a considerable amount of data available for San Francisco as a whole and Lake Merced and Golden Gate Park in particular. The San Francisco Planning Department should require preparers of environmental documents to utilize the following addition in addition to those referred to in the EIR:

Golden Gate Audubon Society

- 1) ebird.org: A huge amount of data for Lake Merced is currently available in eBird, consisting of accounts from numerous birders throughout the year.
- 2) The “Annotated Atlas and Implication for the Conservation of Heron and Egret Nesting Colonies in the San Francisco Bay Area”, an Audubon Canyon Ranch publication, is available on line at <http://www.egret.org/atlas>
- 3) The San Francisco Breeding Bird Atlas from San Francisco Field Ornithologists should also be referenced. It can be found on line at [www.markeaton.org/sffo1/Breeding Ecology/San Francisco Breeding Bird Atlas.pdf](http://www.markeaton.org/sffo1/Breeding%20Ecology/San%20Francisco%20Breeding%20Bird%20Atlas.pdf)
- 4) The status of birds throughout the year in this region can be found in, “Birds of Northern California: An annotated Field List”, McCaskie, et. al., Golden Gate Audubon Society, Berkeley, CA, April 1988. Unfortunately it is out of print, but may be available through local libraries or through Amazon.
- 5) The annual Christmas Bird Count for San Francisco is available on line at <http://birds.audubon.org/christmas-bird-count> By analyzing data covering 5 to 10 years the presence and relative abundance of wintering birds can be determined.

Special-Status Species in the Project Area p. 71

A red-legged frog was photographed in Mallard Lake in Golden Gate Park by Alan Hopkins. I believe it was in late 2013, but it may have been early 2014. The photo was shared with the Recreation and Park Department. Due to the presence of an invasive, aquatic weed in the lake, there is ample habitat for red-legged frog to breed there. It is not reasonable to assume there will be any impact on red-legged frogs due to this project. Our comment here is for your information.

Impact BI-1 p. 71

A flaw in this document is the use of a number of dates to identify the generally accepted dates for bird nesting in San Francisco. The range of dates from March 1 through August 31 at the top of p. 72, but in the next section February 1 to August 30 are cited. This discrepancy occurs elsewhere in this document. Observations suggest the nesting season, probably in response to droughts and climate change, is lengthening. February 1 is probably a good date to use as a start date for the nesting season. August 31 is a good date to cite as the end of nesting. However it must be remembered that this is only a rule of thumb and some species can be expected to nest outside those parameters.

p. 73 We disagree the plan not to protect any nest that is built in a work zone after work begins. We concur that it is likely that birds may habituate to disturbance by humans, but nests should be marked from below and exclusion zones should be established even if only to ward off unnecessary intrusion and disturbance. Every reasonable measure should be taken to protect the nest. The proposal as stated should not be an option.

This document does not establish mitigation measures to protect Bank Swallows which nested directly across the Great Highway from the project site for the treatment plant at the Oceanside WPCP during the 2014 nesting season. Again with this species there is little to be done except to monitor the colony and assure the birds do not abandon it during their fairly brief nesting season. Bank Swallows migrate in San Francisco on approximately April 1 each year. They investigate the colony site on and off until a critical mass of birds is present around April 15, at which time they start excavating burrows and building nests. This activity generally continues until late May. Chicks start fledging in early June and continue until late July. Typically by August 1 all of the local Bank Swallow have migrated out of this area. Given their absence at Lake Merced after late July, it appears they do not remain in the area after their chicks fledge. The greatest threat to this species is vibrations due to the use of heavy equipment, drilling, pounding the

ground to consolidate the sand or other construction activities that could possibly send significant vibrations through the ground. An observer should monitor the colony on a daily basis if construction is causing significant vibrations in the ground. Since the Fort Funston colony is only one of 3 or 4 coastal California colonies remaining, every measure should be taken to assure it's survival. The best mitigation would be to schedule the kinds of work that would cause severe vibrations through the ground for the period between August 1 and April 10. An alternative mitigation would be to stop work on the project until the swallows are gone if it appears they are abandoning the colony. The best resources available to learn what best practices can be employed to protect Bank Swallows are the Bank Swallow Technical Advisory Committee <http://www.sacramentoriver.org/bans/index.php?id=home> and Point Blue Conservation Science <http://www.pointblue.org/our-science-and-services/conservation-science/threatened-species/bank-swallow/>

Impact BI-4 p. 75 There are not several rookeries along the shores of Lake Merced. There are three: South Lake, North Lake, The Mesa on East Lake. In 2014 one pair of Great Blue Herons nested in a Monterey pine tree on North Lake Merced, but that hardly constitutes a colony.

In reference to impacts on existing rookeries at the lake. Impacts on the South Lake and Mesa colonies are definitely unlikely and we concur that no mitigation is necessary. Impacts on the North Lake colony are highly likely and should not be passed off as less than significant because the birds have seem to have habituated to human disturbance. In view of the decline of both the North and South Lake colonies in recent years, it is highly likely that long-term human disturbance has a cumulative impact on these birds and they are slowly removing themselves from those sites. That is thought to be the cause of the loss of the Audubon Canyon Ranch (ACR) Great Blue Heron and Great Egret colony in 2013 and again in 2014. (John Kelly PhD, ACR biologist). There is every reason to suspect the same process is going on at Lake Merced. Major construction disturbance on Skyline Blvd during the nesting season is very likely to end heron use of the colony and is likely to reduce or end cormorant use of the colony as well. We submit that mitigation is absolutely necessary for the health of this colonial waterbird colony.

Thank you for the opportunity to comment on this project. To reiterate, we are very supportive of efforts to provide recycled water for use in our parks and open spaces. We hope this is the first of several projects that will make recycled water a viable alternative to the use of potable water in our parks, playing fields, major boulevards and other open spaces. We hope that our suggestions will help avoid any negative impacts to wildlife in the project area.

Very truly yours,
Dan Murphy
Golden Gate Audubon Society
Conservation Committee
murphsf@comcast.net

San Francisco Planning Department
EIR Public Scoping Meeting Written Comment Form

San Francisco Westside Recycled Water Project
Case # 2008.0091E

If you wish to submit written comments on the above project, you may do so on this sheet (although use of this form is not required). Please submit written comments in person to Steven Smith at today's public scoping meeting, or by mail to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. All comments must be submitted no later than 5 P.M., August 15, 2014.

Write your comments regarding the environmental review for the project here. Use the back of the sheet or additional pages if necessary.

- WE ASK YOU TO ELIMINATE THE 2% ART TAX PAID BY CITY RESIDENTS.
 - STREET SWEEPERS SHOULD USE RECYCLED WATER
 - SCHOOLS SHOULD PAY FOR THEIR OWN WATER, NOT CITY RESIDENTS.
 - RETROFITTING S.F. PARK SHOULD NOT BE PAID BY RESIDENTS
- S.F. RESIDENTS
Name: GLENN ROGERS
Organization (if any): METRO
Address: 3425 ALEMANY BLVD
S.F., CA 94132



Alisa Moore

From: MacPherson, Scott [smacpherson@sfwater.org]
Sent: Friday, July 18, 2014 12:57 PM
To: Alisa Moore; Palacios, Barbara
Subject: Fwd: Westside Recycled Water project

Fyi

----- Forwarded message -----

From: Steve Lawrence <steveinsf@outlook.com>
Date: Jul 18, 2014 12:51 PM
Subject: Westside Recycled Water project
To: "Smith, Steve" <Steve.Smith@sfgov.org>
Cc: "MacPherson, Scott" <smacpherson@sfwater.org>, "Ritchie, Steve" <SRitchie@sfwater.org>

Please accept this as a first comment to the Westside Recycled Water Project:

The Westside Recycled Water project will have necessary, undesirable impacts including industry in the Park, digging up streets, installation of a plant at Oceanside in space available for expansion of that treatment plant, and greenhouse gas emissions from all the efforts, and from operating the recycled plant. Please weigh and balance these impacts against similar impacts that a desal plant, or an expanded desal plant, would, if constructed and operated, produce. While you need not choose any particular alternative to study, in this case desalination is an obvious alternative, which (at least until January when funding was diverted) has been studied in parallel. Desal is much less expensive, may be required anyway to meet water supply requirements, is perfectly drought resistant, and requires little more energy per unit produced than does your proposed recycled plant (which also requires reverse osmosis). As the desalinated water is potable, new, special pipelines and expanded storage would not be required, or would be far less expensive and also removed from dense population. By building one new plant, rather than two, environmental impacts and expense could be avoided. Please study the alternative of desal.

Steve Lawrence

APPENDIX A2

San Francisco Public Utilities Commission,
San Francisco Westside Recycled Water Project
Environmental Impact Report, Scoping Report,
March 2011

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San Francisco Public Utilities Commission
San Francisco Westside Recycled Water Project
Environmental Impact Report

Scoping Report

March 2011

Prepared for the San Francisco Planning Department

Prepared by ESA

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San Francisco Public Utilities Commission San Francisco Westside Recycled Water Project Environmental Impact Report Scoping Report

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1.0 Introduction and Background

1.1 Introduction

The San Francisco Planning Department is the lead agency for implementation of California Environmental Quality Act (CEQA) requirements for all projects sponsored by the City and County of San Francisco (CCSF) or conducted within San Francisco. The San Francisco Planning Department is preparing a Draft Environmental Impact Report (EIR) for the San Francisco Public Utilities Commission's (SFPUC's) proposed San Francisco Westside Recycled Water Project (project or proposed project). The Draft EIR, which will assess the potential impacts of the project on the physical environment, is being prepared in accordance with CEQA. CEQA requires the preparation of an EIR when a proposed project could significantly affect the physical environment.

As part of the Draft EIR process, the San Francisco Planning Department conducted a public scoping effort in September 2010, soliciting comments from interested parties, State and natural resource agencies, and the public to help determine the scope of the Draft EIR. This report describes the scoping process and summarizes the public and regulatory agencies' comments received during the scoping period.

1.2 Notice of Preparation

The San Francisco Planning Department published a revised Notice of Preparation (NOP) on September 8, 2010, announcing the preparation of the Draft EIR for the project under CEQA (see Appendix A). The NOP summarized the project objectives and provided a description of the proposed project. The NOP also described the scoping process and included information on the public scoping meeting. The scoping process, notification procedures, and outcome of the scoping meeting are described below, following a brief description of the proposed project.

1.3 San Francisco Westside Recycled Water Project

The primary purpose of the project is to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. Subsequent to the initial Notice of Preparation (NOP) and scoping period in June 2008, the San Francisco Public Utilities Commission (SFPUC) modified the project. As a result, a revised NOP was prepared. The project changes are summarized below:

- The proposed location of the recycled water treatment facility would be at a spoil storage area at the site of the former Richmond-Sunset Water Pollution Control Plant (WPCP) within Golden Gate Park;
- The proposed treatment processes would include reverse osmosis as needed to meet water quality requirements for use in Golden Gate Park;
- The list of recycled water customers would include the Presidio Golf Course;

- San Francisco Zoo and smaller parks in the southern part of the City would not initially be provided with recycled water, though recycled water could be made available to these customers in the future; and

The primary purpose of the project, however, is the same: to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The revised project would meet the current demands of several SFPUC customers with substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and the Presidio Golf Course. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers.

The site proposed for the recycled water treatment facility was changed from the Oceanside WPCP to the site of the former Richmond-Sunset WPCP within Golden Gate Park. The site is currently used by the San Francisco Recreation and Parks Department for park maintenance and spoil storage. This location was selected because of its proximity to recycled water customers, the availability of existing conveyance facilities to and from the site, the availability of land, and the compatibility of project with the current and previous land use.

Effluent (treated to secondary treatment standards at the Oceanside WPCP) would be conveyed to the recycled water treatment plant site via an existing pipeline within the Westside Transport Box located beneath the Great Highway. The effluent would be processed to advanced tertiary standards at the proposed recycled water treatment facility, and this highly treated recycled water would be used at Golden Gate Park (including the Panhandle portion of the park), the Lincoln Park Golf Course, and the Presidio Golf Course, primarily for landscape irrigation. Recycled water would also be used for toilet and urinal flushing as well as irrigation at the California Academy of Sciences in Golden Gate Park.

The revised project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. The project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives.

2.0 Purpose of the Scoping Process

The purpose of the scoping process is to solicit input from the public, interested parties, and agencies with discretionary authority over the project on the appropriate scope, focus, and content of the Draft EIR. The San Francisco Planning Department will consider all of the input received during the scoping process in the preparation of the Draft EIR.

The Draft EIR will describe the existing environmental conditions of the area that could be affected by the proposed project and evaluate the potential effects of the project on the environment in accordance with CEQA. The comments provided by the public and agencies during scoping will help the San Francisco Planning Department identify pertinent issues, methods of analyses, and level of detail that should be addressed in the Draft EIR. The scoping comments will also provide input for development of a reasonable range of feasible alternatives to be evaluated in the Draft EIR.

The scoping comments will augment the information developed by the EIR project team, which includes specialists in each of the environmental subject areas covered in the EIR. This combined input will result in an EIR that is both comprehensive and responsive to issues raised by the public and regulatory agencies, and that meets CEQA requirements. The Draft EIR is scheduled to be available for public comment in fall of 2011.

In addition to facilitating public and regulatory agency input on the scope and focus of the Draft EIR, scoping allows the San Francisco Planning Department to explain the EIR process to the public and to identify additional opportunities for public comment and public involvement during the EIR process.

3.0 Notification of Scoping

The scoping period began on September 8, 2010, with the issuance of the NOP. The San Francisco Planning Department held a scoping meeting on September 23, 2010, and accepted written comments through October 13, 2010. The following methods were used to notify agencies and the public about the availability of the NOP, the scoping meeting dates and locations, and details on the comment process:

- **Mailing List.** A mailing list was compiled, including approximately 6,300 contacts for federal, state, regional, and local agencies; federal, state, regional, and local elected officials; regional and local interest groups; member agencies of the Bay Area Water Supply and Conservation Agency; other potentially affected water districts; SFPUC Community Advisory Committee members; information repositories; media contacts; and property owners and residents within 300 feet of the proposed project limits.
- **Notice of Preparation of an EIR and Notice of Public Scoping Meeting.** Copies of the NOP were distributed via certified mail to responsible and trustee agencies and 15 copies were delivered to the State Clearinghouse (See Appendix A for a copy of the NOP and NOP Notice of Availability). In addition, a notice of availability of the NOP was distributed via first-class mail to the entire mailing list (approximately 6,300 addressees):
 - **Locations to obtain a copy of the NOP.** The NOP was posted to the San Francisco Planning Department's website (<http://mea.sfplanning.org>). A printed copy of the NOP was also provided to anyone who requested it from the San Francisco Planning Department.
 - **Notice to entire mailing list.** Notifications of the scoping meeting, including information on the project EIR and the scoping process, and instructions on how to

obtain a copy of the NOP and provide public comment were mailed to the entire project mailing list approximately three weeks prior to the scoping meeting.

- **Legal notices.** Notices of the scoping meeting and information on how to obtain a copy of the NOP and provide public comment were placed in the legal classified section of the *San Francisco Examiner* (09/08/10).

Table 1 presents an itemized list of mailings.

TABLE 1
NUMBER OF RECIPIENTS ON MAILING LIST FOR NOP AND NOTICE OF SCOPING MEETING

Category	Number of NOP Recipients	Number of NOP Notice of Availability Recipients
Owners and Occupants	0	5,813
Wholesale Customers	3	47
Responsible and Trustee Agencies, Other Agencies	45	96
SFPUC Citizen's Advisory Committee	0	17
Other Interested Parties	6	275
Responsible and Trustee Agencies	9	0
Local and Bordering Jurisdictions	0	10
Media, Libraries, and Individuals	18	6
TOTAL	81	6,264

4.0 Scoping Meeting

The San Francisco Planning Department held a public scoping meeting on September 23, 2010 at the Golden Gate Senior Center (6101 Fulton Street, San Francisco), approximately two weeks after publication of the NOP. The objective of the meeting was to solicit input from the public on potential environmental impacts of the proposed project, the appropriate scope of the EIR, potential mitigation measures, and potential alternatives to the proposed project.

The meeting included presentations on the environmental review process and the proposed project, followed by a formal public comment period. Attendees interested in presenting verbal comments submitted speaker cards and were allowed sufficient time to speak. The meeting concluded with closing remarks. Appendix B includes copies of the scoping meeting presentation, handouts, comment/speaker cards, and sign-in sheets.

The total attendance for the scoping meeting was 48 (based on the meeting sign-in sheets and excluding CCSF and EIR consultant staff). Meeting attendees primarily consisted of private citizens residing near the proposed project area. A total of 17 participants provided verbal comments at the meeting. The scoping meeting was recorded by a certified court reporter who provided verbatim written transcripts of the proceedings. The transcripts can be found in Appendix C of this report.

5.0 Overview of Comments Received

Agencies and members of the public utilized several different methods of providing input: verbal comments during the scoping meeting, written comments submitted at the scoping meeting, or written comments sent via U.S. mail, email and fax. Table 2 lists agencies and other parties that provided written comments in response to the NOP, listed by comment letter number. Table 3 lists individuals that commented at the scoping meeting, listed in alphabetical order by last name. Copies of comment letters and emails are located in Appendix D, while scoping meeting transcripts are located in Appendix C.

TABLE 2
INDEX OF WRITTEN COMMENTS

Comment Letter No.	Commenter
1. Agencies	
1A	Department of Transportation (Lisa Carboni)
2. Organizations	
2A	Clean Water Action California (Jennifer Clary)
2B	Golden Gate Park Preservation Alliance (Katherine Howard)
2C	Park Recreation Open Space Advisory Committee, PROSAC (Les Hilger)
2D	Restore Hetch Hetchy (Mike Marshall)
2E	San Francisco Tomorrow (Jennifer Clary)
2F	Sierra Club (Pinky Kushner)
2G	Tuolumne River Trust (Peter Drekmeier)
3. Individuals	
3A	Theodore E. Bamberger
3B	Holly Barbare
3C	Jean B. Barish, Esq.
3D	Bonnie Baron
3E	Denise D'Anne
3F	Suzanne R. Dumont
3G	Catherine Ehr and Jose Quinteiro
3H	Barry Eisenberg
3I	David Eldred
3J	Steve Estes
3K	Rebecca Evans
3L	David Ferguson
3M	Richard Fong
3N	Wayne Hiroshima
3O	Martha Hoffman
3P	Jason Jungreis and Robyn Lipsky
3Q	Steve Lawrence
3R	Mendy Marks

TABLE 2 (Continued)
INDEX OF WRITTEN COMMENTS

Comment Letter No.	Commenter
3. Individuals (cont.)	
3S	Greg Miller
3T	Isabel Molloy (submitted at scoping meeting)
3U	Dan Murphy
3V	Richard A. Navarro DDS, Ms.
3W	John Odell
3X	Dennis O'Rorke
3Y	Richard Estl Peterson (submitted at scoping meeting)
3Z	Linda J. Shaffer
3AA	Robert Van Ravenswaay (submitted at scoping meeting)
3BB	George Wooding
3CC	Nancy Wuerfel
3DD	Linda Yacobucci

TABLE 3
INDEX OF VERBAL COMMENTS

Verbal Comment No.	Commenter	Organization Name (if applicable)
4A	Peter Drekmeier	Tuolumne River Trust
4B	Martha Hoffman	N/A
4C	Katherine Howard	Golden Gate Park Preservation Alliance
4D	Richard K. Fong	SFRPD Advisory Board
4E	Hiroshi Fukudu	Richmond Community Association
4F	Bert Lehrer	N/A
4G	Greg Miller	N/A
4H	Mary Anne Miller	SPEAK
4I	Douglas Nelson	N/A
4J	Richard Estl Peterson	N/A
4K	David Pilpel	N/A
4L	Jose Quinteiro	N/A
4M	Adam Raskin	N/A
4N	Robert Van Ravenswaay	N/A
4O	George Wooding	West of Twin Peak Central Council
4P	Nancy Wuerfel	N/A
4Q	Linda Yacobucci	N/A

N/A: Not Applicable

6.0 Summary of Comments by Subject Area

Table 4 provides a summary of scoping comments by commenter. (Appendices C and D also contain the commenter correspondence and copies of the scoping meeting transcripts.)

**TABLE 4
SUMMARY OF COMMENTS BY COMMENTOR**

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
1A	Department of Transportation (Lisa Carboni)	Page 1, Paragraph 1	Discuss financing, scheduling, and implementation of all mitigation measures. Identify traffic mitigation fees.	Transportation and Circulation Project Description	Financing not applicable to CEQA
1A	Department of Transportation (Lisa Carboni)	Page 1, Paragraph 1	An encroachment permit is required for project work in the State's right of way (ROW).	Transportation and Circulation Project Description	
1A	Department of Transportation (Lisa Carboni)	Page 1, Paragraph 2	Complete an archaeological records search and cultural resource study.	Cultural and Paleontological Resources	
1A	Department of Transportation (Lisa Carboni)	Page 2, Paragraph 1	Encourage San Francisco Planning department to coordinate with Dept. of Transportation Project Manager, Howard Reynolds.	Project Description	
1A	Department of Transportation (Lisa Carboni)	Page 2, Paragraph 2	Incorporate traffic-related mitigation measures into construction plans.	Transportation and Circulation Mitigation Measures	
2A	Clean Water Action California	Page 1, Paragraph 2	Study the Recycled Water Project and the SF Groundwater Supply Project concurrently to avoid piecemeal review.	Project Description Cumulative Impacts Alternatives	
2A	Clean Water Action California	Page 1, Paragraph 3	Project diverges from the adopted WSIP PEIR recycled water amounts. Identify how the 2.4 mgd demand reduction will be achieved.	Project Description Cumulative Impacts	
2A	Clean Water Action California	Page 2, Paragraph 1	Third Project Objective does not specifically address reason for the project and should be clarified. Suggest "reduce San Francisco's demand on the regional water system by replacing imported supplies with local sources."	Project Objectives	
2A	Clean Water Action California	Page 2, Paragraph 2	Address potential expansion sites to fulfill the additional 0.4 mgd of supply (from 1.6 to 2.0 mgd).	Project Description	
2A	Clean Water Action California	Page 2, Paragraph 3	Address why the high level of water treatment is necessary.	Project Description Hydrology and Water Quality	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2A	Clean Water Action California	Page 2, Paragraph 3	Identify range of uses for the recycled water and the water quality needed to serve those uses.	Project Description Hydrology and Water Quality	
2A	Clean Water Action California	Page 3, Paragraph 1	Identify recycled water infrastructure and address impacts on Golden Gate Park land.	Project Description Land Use Recreation Noise Transportation and Circulation	
2A	Clean Water Action California	Page 3, Paragraph 1	Address construction related impacts on local wildlife.	Biological Resources	
2A	Clean Water Action California	Page 3, Paragraph 1	Address impacts related to the recycled water facility's lighting.	Aesthetics	
2A	Clean Water Action California	Page 3, Paragraph 2	Address impacts of change in pollutants load from the Oceanside Pollution Control Plant (WPCP) into the Pacific Ocean.	Hydrology and Water Quality	
	Clean Water Action California	Page 3, Paragraph 2	Evaluate water quality for lake recharge and effect on invertebrates in the park.	Hydrology and Water Quality Biological Resources	
2A	Clean Water Action California	Page 3, Paragraph 3	Identify estimates of sea level rise and surge and beach erosion. Address impacts related to the Westside Transport Box under the Great Highway.	Hydrology and Water Quality Geology and Soils	
2A	Clean Water Action California	Page 3, Paragraph 4	Address rationale for selecting Golden Gate Park as the preferred site. Provide alternative site location for recycled water treatment facility near Oceanside WPCP.	Project Description Alternatives	
2A	Clean Water Action California	Page 3, Paragraph 4 Page 4, Paragraph 2	Consider the use of recycled water to recharge groundwater aquifer as an alternative.		Implementation of other projects that would increase aquifer recharge are not proposed by the project proponent

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 1, Paragraph 1	Encourages more comprehensive outreach to the public who have expressed concern in the past with issues relating to Golden Gate Park.	Introduction and Background	SFPUC has conducted a series of Project Alternatives Workshops and has invited interested citizens to participate. Golden Gate Park related public outreach beyond that associated with the proposed project is not applicable.
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 2, Paragraph 1	Discuss the project's impact on the historic integrity and character of Golden Gate Park.	Cultural and Paleontological Resources Aesthetics	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 2, Paragraph 2	Analyze construction-related impacts on adjacent parkland.	Environmental Setting and Impacts	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 2, Paragraph 3	Address construction-related impacts on areas outside of Golden Gate Park, including The Great Highway, commercial and residential areas, and park users (comment (e.g., safety, erosion, sea level rise with global warming impacting pipes).	Environmental Setting and Impacts	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 2, Paragraph 4 Page 3, Paragraph 1	Address parking and traffic impacts.	Transportation and Circulation	Parking Not Related to CEQA
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 2, Paragraph 4 Page 3, Paragraph 1	Address impacts on vehicular and bicycle traffic in the project area especially during weekends and large events in Golden Gate Park and Ocean Beach.	Transportation and Circulation Recreation	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 2	Address construction and operational impacts on wildlife and vegetation.	Biological Resources	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 3	Address aesthetic impacts of the project including external lighting, loss of trees and shrubs, and the above-ground facility on the surrounding area, including Murphy Windmill and the 46th Avenue playground.	Aesthetics	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 3	Address the project-related noise, and odoriferous materials impacts.	Noise Air Quality	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 3	Address aesthetic impacts on the Murphy Windmill and Millwright's cottage.	Aesthetics Cultural and Paleontological Resources	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 4	Address impacts related to loss of parkland and general recreation uses at the Project location.	Recreation Land Use	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 3, Paragraph 5 Page 4, Paragraph 1	Address impacts on the groundwater aquifer including groundwater contamination and groundwater depletion.	Hydrology and Water Quality	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 2	Address the amount of energy required to power the project including the facility processes and pump stations.	Energy and Mineral Resources	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 3	Address impacts of tertiary treated water on vegetation, wildlife and humans.	Biological Resources	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 4	Identify residual contaminants in the recycled water and their effects on groundwater, air, ocean, and vegetation.	Hydrology and Water Quality Air Quality Biological Resources	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 5	Address economic impacts of the project including cost to consumer, taxpayers, and less expensive alternatives.		Cost not applicable to CEQA
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 6	Address alternative locations for the project facility.	Project Description Alternatives	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 4, Paragraph 7	Address alternative designs for the treatment facility (e.g. underground, smaller facility, use of berms).	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 5, Paragraph 1	Address consistency of the proposed project and relevant City documents and agreements.	Plans and Policies Land Use	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 5, Paragraph 2	Address cumulative impacts related to existing and proposed water supply and water recycling projects in San Francisco.	Cumulative Impacts	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 5, Paragraph 3	Address environmental safety issues related to the project including contamination of groundwater, contamination of treated water by raw sewage between Oceanside WPCP and the treatment facility, and natural disasters or man-made disasters.	Hydrology and Water Quality Hazards and Hazardous Materials Geology and Soils	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 5, Paragraph 4	Address issues related to the removal of waste materials through use of membrane filtration and reverse osmosis treatment.	Project Description	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 5, Paragraph 4	Address impacts related to discharging reverse osmosis concentrate into the ocean.	Biological Resources Hydrology and Water Quality	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 6, Paragraph 1	Address necessary system retrofits to bring the project into compliance with all State and Federal regulations including Title 22 and Title 17 requirements.	Hydrology and Water Quality	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 6, Paragraph 2	Address impacts related to future potential expansion of the treatment facility.	Project Description	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 6, Paragraph 3	Address cumulative impacts related to adjacent projects including the proposed SF Groundwater Supply project and other recycling projects.	Cumulative Impacts	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 6, Paragraph 4	Address cumulative impacts related to adjacent projects including the proposed renovation of the Beach Chalet soccer fields.	Cumulative Impacts	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 6, Paragraph 5 Page 7, Paragraph 1	Address alternatives to the proposed project including use of desalinated water, use of groundwater, water conservation, construction of a water recycling plant outside of San Francisco, use of permeable surfaces and removal of paving in Golden Gate Park, and use of recycled water in buildings.	Alternatives	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 7, Paragraph 2	Incorporates the Beach Chalet Soccer Field Scoping Letter by reference.	Cumulative Impacts	
2B	Golden Gate Park Preservation Alliance (Katherine Howard)	Page 7, Paragraph 3	Requests to be included and notified on the EIR process.	Introduction and Background	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 1-2	Expresses strong concern about the proposed location of the Treatment Facility in Golden Gate Park.	Project Description Alternatives	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4,	Expresses concern that the treatment facility location in Golden Gate Park does not comply with the Western Shoreline Area Plan and the Recreation and Open Space Element of the CCSF General Plan.	Project Description Plans and Policies	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4,	Requests alternative location for recycled water treatment plant be found.	Project Description Alternatives	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4,	Requests that City Charter Section 4.113 requirement be complied with before proceeding with project.	Project Description	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4	Address the need for use reverse osmosis treated water for non-sensitive irrigation sites and commercial use.	Project Description	
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4	Address what the remaining 3 acres of the treatment facility site will be used for.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2C	PROSAC (Les Hilger)	Page 1, Paragraph 4	Expresses opposition to proposed visitors center due to conflict with the Beach Chalet visitor center and other recreation uses in western Golden Gate Park.	Project Description	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraphs 1-2	Expresses concern about placing the treatment facility in Golden Gate Park.	Project Description Alternatives	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address long term impacts of all SFPUC projects built within or bordering federal, state, or county/city parks.	Cumulative Impacts	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address impacts on the local native plant and animal population.	Biological Resources	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address construction and operational noise impacts to the quality of the recreational experience of the park.	Recreation Noise	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address construction and operational automotive traffic impacts on air quality, noise, plant and animal life, and recreational activity at Golden Gate Park.	Noise Recreation Air Quality Biological Resources Transportation and Circulation	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address the potential for future expansion of the treatment facility.	Project Description	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 1, Paragraph 3	Address pumping recycled water into the aquifer for groundwater recharge.		Groundwater recharge is not within the scope of the proposed project
2D	Restore Hetch Hetchy (Mike Marshall)	Page 2, Paragraph 1	Discuss the shift of financial resources to fund the proposed project.		Not applicable to CEQA
2D	Restore Hetch Hetchy (Mike Marshall)	Page 2, Paragraph 2	Address impacts of less extensive water recycling processes on plant and animal life.	Project Description Alternatives Biological Resources	
2D	Restore Hetch Hetchy (Mike Marshall)	Page 2, Paragraph 2	Address potential impact the financial cost of this project will have on other efforts to reduce withdrawals from the Tuolumne River, and improve the Hetch Hetchy watershed.		Financial cost not Applicable to CEQA

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2D	Restore Hetch Hetchy (Mike Marshall)	Page 2, Paragraph 2	Evaluate the potential impacts the financial cost of this project will have on efforts to reduce demand for imported water supplies.		Financial cost not Applicable to CEQA
2D	Restore Hetch Hetchy (Mike Marshall)	Page 2, Paragraph 2	Discuss whether funding for the proposed project could be used to fund more cost effective projects.	Project Description	Financial cost not Applicable to CEQA
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 2	Address impact of removal of four acres of open space in Golden Gate Park.	Land Use Recreation	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 3	Address proposed project compliance with the Planning Code zoning.	Plans and Policies Land Use	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 4	Expresses concern about the description of the proposed action as a restoration of a former use.	Project Description Alternatives	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 5	Address project compliance with Golden Gate Park Master Plan.	Plans and Policies Land Use	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 6	Address alternative treatment site locations such as the Westside Treatment Plant and Zoo parking lot	Project Description Alternatives	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 1, Paragraph 7	Recommends that the proposed project to be studied as part of a Water Management Master Plan which would incorporate the region's tertiary water plans.	Project Description	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 1	Address the proposed use of the entire four acre project site.	Project Description	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 2	Address whether this is a project level EIR based on a Programmatic document approved in 2008.	Introduction and Background	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 3	Recommends different levels of water treatment according to application location.	Project Description	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 4	Requests that a construction schedule and locations for piping be included in the EIR.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 4	Address impacts to traffic and transportation in adjacent neighborhoods.	Transportation and Circulation	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 5	Address impacts on flora and fauna particularly frogs, snakes, and lizards.	Biological Resources	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 6	Address impacts related to the proposed recycled water facility's lighting.	Aesthetics	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 6	Address impacts related to aerial emission of gases and odors.	Air Quality	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraphs 7-8	Requests description of the proposed facility's security fencing.	Project Description	
2E	San Francisco Tomorrow (Jennifer Clary)	Page 2, Paragraph 9	Requests figures of the full site plan of the four acre site, elevations of the building, and landscaping plans, so as to address day and nighttime lighting and other aesthetics issues.	Project Description Aesthetics Biological Resources (birds)	
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 1	Expresses concern about the location of the proposed treatment facility in Golden Gate Park.	Project Description Alternatives	
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 2	Address site location, construction, and operational alternatives to the proposed project.	Project Description Alternatives	
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 3	Address construction, operation and maintenance energy costs for each alternative.		Cost not applicable to CEQA
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 3	Address the cost of each alternative.		Cost not applicable to CEQA
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 3	Address the proposed project's susceptibility to earthquakes, sea surges, tsunamis, electrical outages, and terrorist attacks.	Project Description Hazards/Hazardous Materials Geology/Soils Utilities and Service Systems	
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraphs 4-6	Address and evaluate alternative project site locations.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraphs 7-8 Page 2, Paragraphs 1-5	Address a Bio and Eco Friendly alternative that would restore and expand Golden Gate Park lakes to restore the Westside Aquifer for a more reliable water supply.	Alternatives	
	Sierra Club (Pinky Kushner)		Suggests visitor center be omitted and information included on ground floor of Beach Chalet instead.	Project Description	
2F	Sierra Club (Pinky Kushner)	Page 2, Paragraphs 6-9	Address a Natural alternative that would focus on repair, restoration and improvement of the Westside Aquifer, minus the expansion of the Golden Gate Park lakes.	Alternatives	
2F	Sierra Club (Pinky Kushner)	Page 1, Paragraph 7 Page 2, Paragraph 5	Recommends developing an integrated watershed management plan for the Westside Basin.	Project Description	
2F	Sierra Club (Pinky Kushner)	Page 2, Paragraph 10 Page 3, Paragraph 1	Expresses concern that the proposed project does not comply with the Golden Gate Park Mater Plan or the CCSF General Plan.	Plans and Policies Land Use	
2F	Sierra Club (Pinky Kushner)	Page 3, Paragraph 1	Recommends an alternative that is completely underground with recreational uses on the surface.	Project Description Alternatives	
2F	Sierra Club (Pinky Kushner)	Page 3, Paragraph 2	Address growth inducement potential for the proposed project.	Other CEQA Issues	
2G	Tuolumne River Trust (Peter Drekmeier)	Page 1, Paragraphs 1-2	Describe the approval of WSIP and SFPUC's commitment to reduce demand for potable water in San Francisco by 10 mgd.	Introduction and Background	
2G	Tuolumne River Trust (Peter Drekmeier)	Page 1, Paragraph 3	Describe whether the proposed project would reduce potable water diversions and would be beneficial to the fish and wildlife, water quality and recreation in the Tuolumne.	Introduction and Background	
2G	Tuolumne River Trust (Peter Drekmeier)	Page 1, Paragraphs 4-5	Address impacts on Tuolumne River.		Analysis of Tuolumne River resources was addressed in the WSIP PEIR and is not within the scope of this EIR

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraph 1	Expresses concern about the cost of the proposed project due to reverse osmosis water treatment.		Cost not applicable in CEQA
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraph 2	Address ways to eliminate the need for reverse osmosis, including transitioning Golden Gate Park to salt tolerance plants.	Project Description	Golden Gate Park landscaping plant selection not within the scope of the EIR, however plants within the project area will be discussed.
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraph 2	Requests that EIR include list of salt-sensitive plants and map of their locations in Golden Gate Park.	Biological Resources	List of salt-sensitive plants and locations found within the Golden Gate Park Master Plan.
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraph 3	Requests that EIR explore alternative projects in partnership with other water providers.	Alternatives	
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraph 4	Address use of recycled water to recharge the South Westside Groundwater Basin or as part of the Regional Groundwater Storage and Recovery Project.		Groundwater recharge not within the scope of the proposed project
2G	Tuolumne River Trust (Peter Drekmeier)	Page 2, Paragraphs 5-6	Recommends a partnership between water providers in San Mateo and San Francisco Counties.		Water provider partnerships not within the scope of the proposed project
2G	Tuolumne River Trust (Peter Drekmeier)	Page 3, Paragraphs 1-3	Requests a comparison of likely future costs of recycled water to the cost of surface water.		Cost not applicable to CEQA
3A	Theodore E. Bamberger	Page 1, Paragraph 1-2	Expresses concern that using existing park land for an industrial use would set a precedent for other non recreational uses.	Land Use	
3A	Theodore E. Bamberger	Page 1, Paragraph 3	Expresses concern that the new facility would exceed the boundary of the former Richmond-Sunset WPCP.	Project Description	
3A	Theodore E. Bamberger	Page 1, Paragraph 4	Address the existing land uses of the proposed recycled water facility site.	Land Use	
3A	Theodore E. Bamberger	Page 1, Paragraph 4	Requests the SFPUC compensate Golden Gate Park for lost park land.		Cost not applicable to CEQA

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3A	Theodore E. Bamberger	Page 1, Paragraph 5	Requests that the EIR contain a glossary and Acronyms Section.	Glossary and Acronyms	
3B	Holly Barbare	Page 1, Paragraph 1	Expresses concern that parkland is valuable recreational asset.	Land Use Recreation	
3B	Holly Barbare	Page 1, Paragraph 2	Address a “No Build” Alternative, which would include reducing water requirements of SF.	Alternatives	
3B	Holly Barbare	Page 1, Paragraph 3	Address alternative site location for the treatment facility outside of Golden Gate Park on non-park land.	Project Description Alternatives	
3B	Holly Barbare	Page 1, Paragraph 4	Address an alternative facility design that is completely underground to minimize recreational/aesthetic impacts.	Project Description Alternatives Plans and Policies	
3B	Holly Barbare	Page 1, Paragraph 5	Address land use compatibility with the adjacent Golden Gate Park land uses.	Land Use	
3B	Holly Barbare	Page 2, Paragraph 1	Address project area accessible to public.	Land Use Recreation	
3B	Holly Barbare	Page 2, Paragraphs 1,2	Address impacts to the natural setting of Golden Gate Park and to the value of recreational experience.	Aesthetics Recreation	
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Identify all locations considered for the site of the recycled water treatment facility and who was involved in the selection process.	Project Description Alternatives	
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Address criteria used to select the locations considered for the proposed recycled water facility.	Project Description Alternatives	
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Address project site selection rationale.	Project Description Alternatives	
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Address land use compatibility of the proposed project with the Golden Gate Park Master Plan.	Plans and Policies Land Use	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Address rationale for moving the treatment facility location from Oceanside Water WPCP to Golden Gate Park.	Project Description Alternatives	
3C	Jean B Barish, Esq.	Page 1, Paragraph 2	Address the role of SFRPD and other city, state, and federal agencies in decision to change the site of proposed project.	Project Description Alternatives	
3C	Jean B Barish, Esq.	Page 2, Paragraph 1	Address project consistency with Golden Gate Park Master Plan.	Plans and Policies Land Use	
3C	Jean B Barish, Esq.	Page 2, Paragraph 1	Address designs that were considered for the facilities including underground and smaller footprint.	Plans and Policies Land Use	
3C	Jean B Barish, Esq.	Page 2, Paragraph 2	Address impacts on the historic integrity of Golden Gate Park, the Murphy Windmill, and Millwrights Cottage.	Cultural and Paleontological Resources	
3C	Jean B Barish, Esq.	Page 2, Paragraph 2	Address impacts on the aesthetic experience of Golden Gate Park.	Aesthetics Recreation	
3C	Jean B Barish, Esq.	Page 2, Paragraph 2	Address construction related impacts on the adjacent parkland and lands.	Environmental Setting and Impacts	
3C	Jean B Barish, Esq.	Page 2, Paragraph 2	Address impacts of the proposed facility on wildlife and plant life in Golden Gate Park.	Biological Resources	
3C	Jean B Barish, Esq.	Page 2, Paragraph 3	Address possibility of groundwater contamination from recycled water.	Hydrology and Water Quality	
3C	Jean B Barish, Esq.	Page 2, Paragraph 3	Address impacts to plants, wildlife, and humans from recycled water exposure.	Biological Resources Hydrology and Water Quality	
3C	Jean B Barish, Esq.	Page 2, Paragraph 3	Address impacts from earthquakes, tsunamis, terrorism, and industrial accidents.	Hazards and Hazardous Materials Geology and Soils Utilities and Service Systems	
3C	Jean B Barish, Esq.	Page 3, Paragraph 1	Address cumulative impacts of the proposed project and the proposed Beach Chalet Soccer Fields Project.	Cumulative Impacts	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3C	Jean B Barish, Esq.	Page 3, Paragraph 1	Address impacts of potentially increasing the capacity of the water treatment plant.	Project Description	
3C	Jean B Barish, Esq.	Page 3, Paragraph 1	Address economic impacts of the proposed project and consider less expensive alternatives.		Economic impact not Applicable to CEQA
3D	Bonnie Baron	Page 1, Paragraph 1	Expresses concern about proposed treatment facility being above ground and compliance with the Golden Gate Park Master Plan.	Project Description Plans and Policies	
3E	Denise D'Anne	Page 1, Paragraph 2	Requests that the location of the proposed recycled water treatment facility be moved outside of Golden Gate Park.	Project Description Alternatives	
3F	Suzanne R. Dumont	Page 1, Paragraph 1	Requests that the project not be aboveground to comply with Golden Gate Park Master Plan.	Project Description Plans and Policies	
3F	Suzanne R. Dumont	Page 1, Paragraph 2	Asks what sites outside Golden Gate Park were considered.	Alternatives	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 1	Expresses support for concept of using recycled water for non-potable uses.		Supports use of recycled water
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 1	Expresses opposition to the proposed project location within Golden Gate Park.	Project Description Alternatives	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 2	Expresses concern that the proposed project is not consistent with the current SFRPD land use.	Land Use Plans and Policies	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 2	Describes closure of the Richmond-Sunset Treatment Plant.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 2, 3	Address consistency with CCSF's General Plan Recreational and Open Space Element and the Golden Gate Park Master Plan.	Plans and Policies Land Use	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 3	Expresses concern about proposed project location within Golden Gate Park.	Project Description Alternatives	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 3	Address rationale for why tertiary treatment cannot occur at the existing Oceanside WPCP.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 3	Address rationale for why the proposed site in Golden Gate Park is more feasible than the previous site indentified in the 2008 NOP.	Project Description Alternatives	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 3	Address what alternate project sites were considered and why they were no longer part of the project.	Project Description Alternatives	
3G	Catherine Ehr and Jose Quinteiro	Page 1, Paragraph 4	Address safeguards that will be used to prevent hazardous chemical impacts during project operation.	Hazards and Hazardous Materials	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 1	Describe what is concentrated brine solution consists of.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 1	Address whether any of the proposed discharge waste is hazardous and provide mitigation measures for safe discharge of such materials.	Project Description Hazards and Hazardous Materials	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 2	Address impacts of facility and pipeline leaks of untreated water.	Project Description Hydrology and Water Quality	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 2	Describe measures incorporated in the project design to prevent, reduce, and mitigate untreated water spills.	Project Description Hydrology and Water Quality	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 2	Address whether Ocean Beach or Golden Gate Park are at risk of contamination or closure in the event of discharges.	Hydrology and Water Quality Hazards and Hazardous Materials	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 2	Address whether the project has the potential to contaminate groundwater which is proposed for potable use.	Hydrology and Water Quality	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 3	Describe the lighting requirement of the facility.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 3	Address noise impacts of the proposed project.	Noise	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 3	Address the operational traffic (including chemical deliveries) impacts of the proposed project.	Transportation and Circulation	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 4	Describe the proposed use of the entire four acre project site and the guarantees that three acres will be left for public use.	Project Description Recreation	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 4	Discuss what agreements have been made to ensure that the remaining 3 acres of the site will be retained for public use.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 5	Address why the current annual average operating rate (2.0 mgd) and facility capacity (4.5 mgd) differ.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 5	Address potential future treatment facility expansion or additional facilities.	Project Description	
3G	Catherine Ehr and Jose Quinteiro	Page 2, Paragraph 6	Expresses opposition to construction of a water treatment facility in Golden Gate Park.	Project Description Alternatives	
3H	Barry Eisenberg	Page 1, Paragraph 1	Expresses that the goals of recycled water are admirable however the treatment facility should not be in Golden Gate Park.	Project Description Alternatives	Supports Use of Recycled Water
3H	Barry Eisenberg	Page 1, Paragraph 1	Address project site alternative in the surplus parking lot at the SF zoo.	Project Description Alternatives	
3H	Barry Eisenberg	Page 1, Paragraph 1-3	Address rationale for no longer considering the zoo as a feasible site.	Project Description Alternatives	
3H	Barry Eisenberg	Page 1, Paragraph 3	Requests detailed description of the site selection process.	Project Description Alternatives	
3I	David Eldred	Page 1, Paragraph 2	Expresses concern that industrial facility does not comply with the Golden Gate Park Master Plan.	Plans and Policies Land Use	
3I	David Eldred	Page 1, Paragraph 3	Address site selection process, selection criteria, site locations considered, and who was involved with the decision.	Project Description Alternatives	

**TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER**

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3I	David Eldred	Page 1, Paragraphs 4-6	Address design of an underground treatment facility with recreation uses on top.	Alternatives	
3I	David Eldred	Page 1, Paragraph 5-6	Address all possible recycled water facility locations.	Alternatives	
3I	David Eldred	Page 1, Paragraph 5-6	Address impacts of pipelines related to all facility location alternatives.	Alternatives	
3I	David Eldred	Page 1, Paragraph 5-6	Address impacts on wildlife, vegetation, traffic, noise, lighting, long-term park usage, and the community.	Biological Resources Transportation and Circulation Noise Aesthetics Recreation Land Use	
3I	David Eldred	Page 1, Paragraph 5-6	Address construction guidelines, construction schedule.	Project Description	
3I	David Eldred	Page 1, Paragraph 5-6	Address system cost financing, and operations costs.		Cost not Applicable to CEQA
3J	Steve Estes	Page 1, Paragraph 1	Expresses support for concept of using recycled water for non-potable uses.		Supports use of recycled water
3J	Steve Estes	Page 1, Paragraph 1	Expresses opposition to the proposed project location within Golden Gate Park.	Project Description Alternatives	
3J	Steve Estes	Page 1, Paragraph 2	Describes closure of the Richmond-Sunset Treatment Plant.	Project Description	
3J	Steve Estes		Describe consistency with the City's General Plan and the Golden Gate Park Management Plan.	Plans and Policies	
3J	Steve Estes	Page 1, Paragraph 2	Address rationale for why tertiary treatment cannot occur at the existing Oceanside WPCP.	Project Description Alternatives	
3J	Steve Estes	Page 1, Paragraph 2	Address rationale for why the proposed site in Golden Gate Park is more feasible than the previous site identified in the 2008 NOP.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3J	Steve Estes	Page 1, Paragraph 2	Address what alternate project sites were considered and why they were no longer part of the project.	Project Description Alternatives	
3J	Steve Estes	Page 1, Paragraph 2	Address safeguards that will be used to prevent hazardous chemical impacts during project operation.	Hazards and Hazardous Materials	
3J	Steve Estes	Page 1, Paragraph 2	Describe what is concentrated brine solution consists of.	Project Description	
3J	Steve Estes	Page 1, Paragraph 2	Address whether any of the proposed discharge waste is hazardous and provide mitigation measures for safe discharge of such materials.	Project Description Hazards and Hazardous Materials	
3J	Steve Estes	Page 1, Paragraph 2	Address impacts of facility and pipeline leaks of untreated water.	Project Description Hydrology and Water Quality	
3J	Steve Estes	Page 1, Paragraph 2	Describe measures incorporated in the project design to prevent, reduce, and mitigate untreated water spills.	Project Description Hydrology and Water Quality	
3J	Steve Estes	Page 1, Paragraph 2	Address whether Ocean Beach or Golden Gate Park are at risk of contamination or closure in the event of discharges.	Hydrology and Water Quality Hazards and Hazardous Materials	
3J	Steve Estes	Page 1, Paragraph 2 Page 2, Paragraph 1	Address whether the project has the potential to contaminate groundwater which is proposed for potable use.	Hydrology and Water Quality (Groundwater Contamination)	
3J	Steve Estes	Page 2, Paragraph 1	States opposition to construction of a water treatment facility in Golden Gate Park.	Project Description Alternatives	
3K	Rebecca Evans	Page 1, Paragraph 1	Describe the degree of removal of pharmaceutical products from the effluent by the RO/UV process.	Project Description Hydrology and Water Quality	
3K	Rebecca Evans	Page 1, Paragraph 2	Address alternative site locations for the recycled water treatment facility.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3K	Rebecca Evans	Page 1, Paragraph 2	Address alternative sites that were considered for the recycled water treatment facility and why they are not feasible.	Project Description Alternatives	
3K	Rebecca Evans	Page 1, Paragraph 3	Address impacts of recycled water on amphibian species.	Biological Resources	
3K	Rebecca Evans	Page 1, Paragraph 4	Describe volume of recycled water that will be used on golf courses.	Project Description	
3K	Rebecca Evans	Page 1, Paragraph 5	Address plans for future recycled water facilities in San Francisco.	Cumulative	
3L	David Ferguson	Page 1, Paragraph 2	Address compliance with the Golden Gate Park Master Plan.	Plans and Policies Land Use	
3L	David Ferguson	Page 1, Paragraph 3	Address alternative treatment facility locations outside of Golden Gate Park.	Project Description Alternatives	
3L	David Ferguson	Page 1, Paragraph 4	Address facility lighting and consistency to Golden Gate Park Master Plan.	Aesthetics Plans and Policies	
3L	David Ferguson	Page 1, Paragraph 5	Expresses concern that project site should not support industrial uses.	Land Use Plans and Policies	
3L	David Ferguson	Page 1, Paragraph 6	Identify the parties who support this location.	Project Description Alternatives	
3L	David Ferguson	Page 1, Paragraph 7	Include the citizens in the project location decision.	Introduction and Background	
3M	Richard Fong (SFRPD Advisory Board)	Page 1, Paragraph 1	Recommends using a carbonate buffer based capacitater in controlling hydrogen ion (pH) in recycled water treatment.	Project Description Alternatives	
3M	Richard Fong (SFRPD Advisory Board)	Page 1, Paragraph 2	Recommends using reverse osmosis water only for lake fill.	Project Description	
3M	Richard Fong (SFRPD Advisory Board)	Page 1, Paragraph 3	Recommends investigating a desalination project using application of Tisdler "extractor" method.	Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3N	Wayne Hiroshima	Page 1, Paragraph 2	Address rationale for why tertiary treatment cannot occur at the existing Oceanside WPCP.	Project Description Alternatives	
3N	Wayne Hiroshima	Page 1, Paragraph 2	Address alternative site locations to be considered and approved by residents of SF.	Alternatives Introduction and Background	
3N	Wayne Hiroshima	Page 1, Paragraph 2	Address hazardous waste related to the proposed project and provide measures to protect against exposure.	Hazards and Hazardous Materials	
3N	Wayne Hiroshima	Page 1, Paragraph 2	Address measures to safeguard against pipeline leaks and spillage due to earthquakes.	Geology and Soils	
3N	Wayne Hiroshima	Page 1, Paragraph 2	Address impacts of leaking un-treated water at the treatment facility and along Great Highway on Ocean Beach.	Hazards and Hazardous Materials Hydrology and Water Quality	
3N	Wayne Hiroshima	Page 1, Paragraph 2	Describe the project's potential to contaminate the groundwater wells in Golden Gate Park.	Hydrology and Water Quality	
3N	Wayne Hiroshima	Page 1, Paragraph 3	Opposes project location in Golden Gate Park.	Project Description Alternatives	
3O	Martha Hoffman	Page 1, Paragraph 1	Expresses concern that all citizens of San Francisco should be notified of major projects in Golden Gate Park.	Introduction and Background	
3O	Martha Hoffman	Page 1, Paragraph 2	Expresses concerned about the proposed project displacing wildlife habitat in the park.	Biological Resources	
3O	Martha Hoffman	Page 1, Paragraph 2	Address alternative project site location outside of Golden Gate Park.	Project Description Alternatives	
3P	Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 1	Expresses support for concept of using recycled water for non-potable uses.		Supports use of recycled water
3P	Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 1	Expresses opposition to the proposed project location within Golden Gate Park.	Project Description Alternatives	
3P	Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Describes closure of the Richmond-Sunset Treatment Plant.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter	Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address rationale for why tertiary treatment cannot occur at the existing Oceanside WPCP.	Project Description Alternatives	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address rationale for why the proposed site in Golden Gate Park is more feasible than the previous site indentified in the 2008 NOP.	Project Description Alternatives	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address consistency with the City's General Plan and Golden Gate Park Master Plan.	Land Use Plans and Policies	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address what alternate project sites were considered and why they were no longer part of the project.	Project Description Alternatives	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address safeguards that will be used to prevent hazardous chemical impacts during project operation.	Hazards and Hazardous Materials	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Describe what is concentrated brine solution consists of.	Project Description	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address whether any of the proposed discharge waste is hazardous and provide mitigation measures for safe discharge of such materials.	Project Description Hazards and Hazardous Materials	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address impacts of facility and pipeline leaks of untreated water.	Project Description Hydrology an Water Quality	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Describe measures incorporated in the project design to prevent, reduce, and mitigate untreated water spills.	Project Description Hydrology and Water Quality	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2	Address whether Ocean Beach or Golden Gate Park are at risk of contamination or closure in the event of discharges.	Hydrology and Water Quality Hazards and Hazardous Materials	
3P Jason Jungreis and Robyn Lipsky	Page 1, Paragraph 2 Page 2, Paragraph 1	Address whether the project has the potential to contaminate groundwater which is proposed for potable use.	Hydrology and Water Quality	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Describe the lighting requirement of the facility.	Project Description	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Address noise impacts of the proposed project.	Noise	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Address the operational traffic (including chemical deliveries) impacts of the proposed project	Transportation and Circulation	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Describe the proposed use of the entire four acre project site.	Project Description	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Discuss what agreements have been made to ensure that the remaining 3 acres of the site will be retained for public use.	Project Description	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Address why the current annual average operating rate (2.0 mgd) and facility capacity (4.5 mgd) differ.	Project Description	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 2	Address potential future treatment facility expansion or additional facilities.	Project Description	
3P	Jason Jungreis and Robyn Lipsky	Page 2, Paragraph 3	Expresses opposition to construction of a water treatment facility in Golden Gate Park	Project Description Alternatives	
3Q	Steve Lawrence	Page 1, Paragraph 2	Address impacts of potential odors on people and animals in Golden Gate Park	Air Quality	
3Q	Steve Lawrence	Page 1, Paragraph 3	Address whether the plant will be operated on a need basis.	Project Description	
3Q	Steve Lawrence	Page 1, Paragraph 4	Address effects of diverting treated wastewater on sand buildup in the Oceanside WPCP outfall pipeline and whether the additional maintenance of the outfall may impact resident biological resources in the marine refuge.	Project Description Biological Resources	
3Q	Steve Lawrence	Page 1, Paragraph 5	Address proposed energy sources and amount of energy required.	Mineral and Energy Resources	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3Q	Steve Lawrence	Page 1, Paragraph 5	Address greenhouse gas emissions of the proposed project including from operations.	Greenhouse Gases	
3Q	Steve Lawrence	Page 1, Paragraph 5	Address when the facility will require energy use, during the day (high usage times) or night (low usage).	Project Description Mineral and Energy Resources	
3Q	Steve Lawrence	Page 1, Paragraph 6	Describe the number of employees and schedules required for project operation, and associated impacts on traffic and park use.	Project Description	
3Q	Steve Lawrence	Page 1, Paragraph 6	Address whether it is more cost efficient to hire temporary workers for peak operations.		Cost not applicable to CEQA
3Q	Steve Lawrence	Page 1, Paragraph 6	Discuss impacts of employees on the parkland and traffic within the park.	Recreation Transportation and Circulation	
3Q	Steve Lawrence	Page 1, Paragraph 7 Page 2, Paragraph 1	Address potential for recycled water to contaminate the groundwater aquifer which is proposed for potable use.	Hydrology and Water Quality	
3Q	Steve Lawrence	Page 2, Paragraph 2	Describe how many additional full time SFPUC and SFRPD employees will be required to operate the treatment facility.	Project Description	
3Q	Steve Lawrence	Page 2, Paragraph 3	Address financial cost of the project.		Cost not applicable to CEQA
3R	Mendy Marks	Page 1, Paragraph 1	Expresses support for concept of using recycled water for non-potable uses.		Supports use of recycled water
3R	Mendy Marks	Page 1, Paragraph 1	Expresses opposition to the proposed project location within Golden Gate Park.	Project Description	
3R	Mendy Marks	Page 1, Paragraph 2	Describes closure of the Richmond-Sunset Treatment Plant.	Project Description	
3R	Mendy Marks	Page 1, Paragraph 2	Address rationale for why tertiary treatment cannot occur at the existing Oceanside WPCP.	Project Description Alternatives	
3R	Mendy Marks	Page 1, Paragraph 2	Address rationale for why the proposed site in Golden Gate Park is more feasible than the previous site identified in the 2008 NOP.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3R	Mendy Marks	Page 1, Paragraph 2	Address consistency with the City's General Plan and Golden Gate Park Master Plan.	Land Use (policies)	
3R	Mendy Marks	Page 1, Paragraph 2	Address what alternate project sites were considered and why they were no longer part of the project.	Project Description Alternatives	
3R	Mendy Marks	Page 1, Paragraph 2	Address safeguards that will be used to prevent hazardous chemical impacts during project operation.	Hazards and Hazardous Materials	
3R	Mendy Marks	Page 1, Paragraph 2	Describe what is concentrated brine solution consists of.	Project Description	
3R	Mendy Marks	Page 1, Paragraph 2	Address whether any of the proposed discharge waste is hazardous and provide mitigation measures for safe discharge of such materials.	Project Description Hazards and Hazardous Materials	
3R	Mendy Marks	Page 1, Paragraph 2	Address impacts of facility and risk of pipeline leaks of untreated water.	Project Description Geology and Soils Hydrology and Water Quality	
3R	Mendy Marks	Page 1, Paragraph 2	Describe measures incorporated in the project design to prevent, reduce, and mitigate untreated water spills.	Project Description	
3R	Mendy Marks	Page 1, Paragraph 2	Address whether Ocean Beach or Golden Gate Park are at risk of contamination or closure in the event of discharges.	Hydrology and Water Quality Hazards and Hazardous Materials	
3R	Mendy Marks	Page 1, Paragraph 2 Page 2, Paragraph 1	Address whether the project has the potential to contaminate groundwater which is proposed for potable use.	Hydrology and Water Quality	
3R	Mendy Marks	Page 2, Paragraph 2	Describe the lighting requirement of the facility.	Project Description	
3R	Mendy Marks	Page 2, Paragraph 2	Address noise impacts of the proposed project.	Noise	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3R	Mendy Marks	Page 2, Paragraph 2	Address the operational traffic (including chemical deliveries) impacts of the proposed project.	Transportation and Circulation	
3R	Mendy Marks	Page 2, Paragraph 2	Describe the proposed use of the entire four acre project site.	Project Description	
3R	Mendy Marks	Page 2, Paragraph 2	Discuss what agreements have been made to ensure that the remaining 3 acres of the site will be retained for public use.	Project Description	
3R	Mendy Marks	Page 2, Paragraph 2	Address why the current annual average operating rate (2.0 mgd) and facility capacity (4.5 mgd) differ.	Project Description	
3R	Mendy Marks	Page 2, Paragraph 2	Address potential for future treatment facility expansion or additional facilities.	Project Description	
3R	Mendy Marks	Page 2, Paragraph 3	Expresses opposition to construction of a water treatment facility in Golden Gate Park.	Project Description Alternatives	
3S	Greg Miller	Page 1, Paragraph 1	Address consistency with the historical integrity of Golden Gate Park.	Cultural and Paleontological Resources	
3S	Greg Miller	Page 1, Paragraph 1	Address impacts to historical significance of nearby CCSF landmarks.	Cultural and Paleontological Resources	
3S	Greg Miller	Page 1, Paragraph 1	Address cumulative impacts of the proposed project and the Beach Chalet Soccer project on the historical integrity of the area.	Cumulative Impacts	
3S	Greg Miller	Page 1, Paragraph 2	Address impacts on the aesthetic and recreational experience on the west end of Golden Gate Park.	Aesthetics Recreation	
3S	Greg Miller	Page 1, Paragraph 2	Address impacts on the recreational experience of Murphy Windmill and Millwrights Cottage.	Recreation	
3S	Greg Miller	Page 1, Paragraph 3	Address potential for future treatment facility expansion and effects on connection between Golden Gate Park and Ocean Beach.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3S	Greg Miller	Page 1, Paragraph 4	Address whether the project has the potential to contaminate groundwater which is proposed for potable use	Hydrology and Water Quality	
3S	Greg Miller	Page 1, Paragraph 4	Address any pharmaceuticals that will remain in the recycled water and long-term risks to humans, wildlife, and plant from accumulation in the aquifer.	Project Description Hydrology and Water Quality	
3S	Greg Miller	Page 1, Paragraph 4	Address alternative treatment facility designs including lower elevations together with landscaped berms.	Project Description Alternatives	
3T	Isabel Molloy	Page 1, Paragraph 1	Address a design alternative with the recycled water facility completely underground.	Project Description Alternatives	
3U	Dan Murphy	Page 1, Paragraph 1	Supports use of recycled water for irrigation and other non-potable uses.		Supports use of recycled water
3U	Dan Murphy	Page 1, Paragraph 1	Supports the site of proposed treatment facility,	Project Description	
3U	Dan Murphy	Page 1, Paragraph 2	Expresses concern that the scale of NOP is too limited,	Project Description	
3U	Dan Murphy	Page 1, Paragraph 2	Address potential future need for expanded use of recycled water or treatment capacity of proposed facility,	Project Description	
3U	Dan Murphy	Page 1, Paragraph 2	Identify additional future recycled water customers,	Project Description	
3U	Dan Murphy	Page 1, Paragraph 3	Address heavy metals or other materials that will remain in the recycled water following treatment,	Project Description Hydrology and Water Quality	
3U	Dan Murphy	Page 1, Paragraph 3	Address impacts of recycled water on plants, wildlife, public health, and the groundwater aquifer,	Biological Resources Hazards and Hazardous Materials Hydrology and Water Quality	
3U	Dan Murphy	Page 1, Paragraph 3	Address impacts of recycled water on fish and other organisms in the Golden Gate Park lakes,	Biological Resources	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3U	Dan Murphy	Page 1, Paragraph 4	Address alternative treatment facility designs with lower elevations to reduce visual impacts,	Alternatives	
3U	Dan Murphy	Page 1, Paragraph 4	Expresses support for interpretive “visitor center” as part of the project	Project Description	
3U	Dan Murphy	Page 1, Paragraph 4	Expresses concern for project to enhance the appearance and habitat value of the park and to teach public about recycled water,	Project Description	
3U	Dan Murphy	Page 1, Paragraph 5	Address placement of infrastructure and including distribution pumps and pipelines and effects on trees, habitat, and underground streams.	Project Description	
3U	Dan Murphy	Page 1, Paragraph 5 Page 2, Paragraph 1	Expresses preference for location of distribution pumps and pipeline routes,	Project Description	
3U	Dan Murphy	Page 2, Paragraph 2	Address impacts of concentrated brine solution on ocean life (including bivalves) at the Oceanside WPCP outfall site.	Hydrology and Water Quality Biological Resources	
3U	Dan Murphy	Page 2, Paragraph 3	Address permits required from the California Coastal Commission and the US Dept. of Fish and Wildlife.	Project Description Biological Resources	
3U	Dan Murphy	Page 2, Paragraph 4	Address impacts of the proposed facility’s lighting on migratory birds and nocturnal animals (specifically bats).	Biological Resources	
3V	Richard A. Navarro	Page 1, Paragraph 1	Expresses opposition to proposed project site in Golden Gate Park.	Project Description Alternatives	
3V	Richard A. Navarro	Page 1, Paragraph 1	Expresses support of the preservation of open space in Golden Gate Park.	Land Use Plans and Policies Alternatives	
3V	Richard A. Navarro	Page 1, Paragraph 2	Expresses concern that project will deteriorate Golden Gate Park.	Land Use Recreation Aesthetics	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3V	Richard A. Navarro	Page 1, Paragraph 3	Expresses opposition of the project location in Golden Gate Park not construction of the treatment plant.	Project Description Alternatives	
3W	John Odell	Page 1, Paragraph 1	Expresses strong opposition to project.	Alternatives	
3W	John Odell	Page 1, Paragraph 3	Expresses concern that a water treatment plants is not a recreational or appropriate use in Golden Gate Park.	Project Description Plans and Policies Land Use	
3W	John Odell	Page 1, Paragraph 4	Address alternative project site locations listed in the 2006 Master Plan.	Alternatives	
3W	John Odell	Page 1, Paragraph 4	Recommends locating the recycled water treatment facility near the Oceanside WPCP.	Alternatives	
3W	John Odell	Page 1, Paragraph 5	Expresses dislike for the design and scale of the proposed facility building.	Project Description Alternatives	
3W	John Odell	Page 1, Paragraph 5	Address consistency with treatment facility design and the Golden Gate Park Master Plan.	Plans and Policies Land Use	
3W	John Odell	Page 1, Paragraph 6	Address legality of use of Water Bond funds for improvements to the Richmond-Sunset site.	Project Description	
3W	John Odell	Page 1, Paragraph 7	Express concern about cost of the project.		Cost not applicable to CEQA
3W	John Odell	Page 1, Paragraph 8	Address impacts to nesting birds and other animals over 2 year length of construction project.	Biological Resources	
3X	Dennis O'Rorke	Page 1, Paragraph 1	Opposes new project development in Golden Gate Park.	Project Description Alternatives	
3Y	Richard Esti Peterson	Page 1, Paragraph 1	Expresses concern about the project.	Project Description	
3Z	Linda J. Shaffer	Page 1, Paragraph 2	Supports use of recycled water in city parks.		Supports use of recycled water
3Z	Linda J. Shaffer	Page 1, Paragraph 3	Expresses concern about project location in Golden Gate Park.	Project Description Alternatives	
3Z	Linda J. Shaffer	Page 1, Paragraph 3	Expresses concern about legal issues associated with violation of the CCSF General Plan and Golden Gate Park Master Plan.	Land Use Plans and Policies	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3Z	Linda J. Shaffer	Page 1, Paragraph 3	Expresses concerned that locating the proposed treatment facility in Golden Gate Park would set a precedent for industrial uses in the park.	Project Description Land Use Plans and Policies	
3Z	Linda J. Shaffer	Page 1, Paragraph 4	Address alternative project site locations not within city parkland.	Alternatives	
3AA	Robert Van Ravenswaay	Page 1, Paragraph 1	Address alternative tertiary treatment at Oceanside WPCP.	Alternatives	
3AA	Robert Van Ravenswaay	Page 1, Paragraph 1	Address project costs and staffing demands.	Project Description	Cost not applicable to CEQA
3AA	Robert Van Ravenswaay	Page 1, Paragraph 1	EIR should clarify relationship to the groundwater plan (project description and scope).	Project Description	
3AA	Robert Van Ravenswaay	Page 1, Paragraph 2	Expresses need to amend the Golden Gate Park Master Plan and CCSF Master Plan (Land Use) to include industrial use in the proposed project location.	Plans and Policies Land Use	
3AA	Robert Van Ravenswaay	Page 1, Paragraph 3	Indicates that if project would provide potable water supply, health risk assessment is required.	Project Description	
3BB	George Wooding	Page 1, Paragraph 1	Address impacts of coastal erosion on the proposed pipelines in the Western Transport Tunnel.	Geology and Soils	
3BB	George Wooding	Page 1, Paragraph 1	Address why infrastructure is being placed in an area that was declared "a disaster zone" on January 11.	Project Description	
3BB	George Wooding	Page 1, Paragraph 2	Address alternative pipeline routes that were proposed in the December 2008 and 2009 NOPs.	Project Description Alternatives	
3CC	Nancy Wuerfel	Page 1, Paragraph 1	Expresses concern that Golden Gate Park is designed for open space not industrial uses.	Land Use Plans and Policies	
3CC	Nancy Wuerfel	Page 1, Paragraph 1	Opposes proposed project location in Golden Gate Park.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3CC	Nancy Wuerfel	Page 1, Paragraph 1	Supports use of recycled water for irrigation purposes.		Supports use of recycled water for irrigation
3CC	Nancy Wuerfel	Page 1, Paragraph 2	Expresses concern that the SF 1995 Chapter (Section 4.113) requires the Board of Supervisors and voters to approve building any new or non-recreational structures in Golden Gate Park.	Project Description	
3CC	Nancy Wuerfel	Page 1, Paragraph 2	Recommends that the proposed project be approved by the Board of Supervisors and voters before moving forward.	Project Description	
3CC	Nancy Wuerfel	Page 1, Paragraph 3	Address consistency with the Golden Gate Park Master Plan and the CCSF General Plan.	Plans and Policies Land Use	
3CC	Nancy Wuerfel	Page 1, Paragraph 4 Page 2, Paragraph 1	Address consistency with the Land Use Section of the WSIP PEIR.	Introduction and Background	
3CC	Nancy Wuerfel	Page 2, Paragraph 2	Address alternative project site locations on non-park land.	Alternatives	
3CC	Nancy Wuerfel	Page 2, Paragraph 3	Address cumulative impact of the proposed project and the SF Groundwater Supply Project.	Cumulative Impacts	
3CC	Nancy Wuerfel	Page 2, Paragraph 4	Address any best practices for industrial uses in urban park land.	Project Description	
3CC	Nancy Wuerfel	Page 2, Paragraph 5	Address current Homeland Security requirements for essential infrastructure.	Project Description	
3CC	Nancy Wuerfel	Page 2, Paragraph 5	Address aesthetic and public health and safety impacts of security requirements.	Aesthetics Project Description	
3CC	Nancy Wuerfel	Page 2, Paragraph 6	Address impacts of pipeline construction on the Great Highway.	Transportation and Circulation Noise Air Quality	
3CC	Nancy Wuerfel	Page 2, Paragraph 7	Address impacts of brine water discharge on ocean ecology.	Biological Resources	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3CC	Nancy Wuerfel	Page 2, Paragraph 8 Page 3, Paragraph 1	Recommends reconsidering the 2008 NOP proposed treatment facility location.	Alternatives	
3CC	Nancy Wuerfel	Page 3, Paragraph 2	Address the long term plans of the Golden Gate Park project site, including potential treatment facility expansion.	Project Description	
3CC	Nancy Wuerfel	Page 3, Paragraph 3	Identify proposed current and future recycled water customers.	Project Description	
3CC	Nancy Wuerfel	Page 3, Paragraph 4	Address pharmaceutical levels present in the recycled water after RO treatment and potential effects on the groundwater aquifer.	Project Description Hydrology and Water Quality	
3CC	Nancy Wuerfel	Page 3, Paragraph 4	Address rationale for RO treatment over tertiary treatment for irrigation purposes.	Project Description	
3CC	Nancy Wuerfel	Page 3, Paragraph 5	Address design method for pipeline alignment locations within Golden Gate Park.	Project Description	
3CC	Nancy Wuerfel	Page 3, Paragraph 6	Address relationship between the proposed project and the SF groundwater project.	Project Description	
3CC	Nancy Wuerfel	Page 3, Paragraph 6	Address impacts on recreation, wildlife, and open space and how losses will be mitigated.	Land Use Recreation Biological Resources	
3DD	Linda Yacobucci	Page 1, Paragraph 1	Opposes proposed project location in Golden Gate Park.	Project Description Alternatives	
3DD	Linda Yacobucci	Page 1, Paragraph 1	Expresses concern that public outreach for the NOP was incomplete.	Introduction and Background	
3DD	Linda Yacobucci	Page 1, Paragraph 1	Expresses concern that SFRPD is giving away public land to make money for the SFPUC.	Project Description Plans and Policies	
3DD	Linda Yacobucci	Page 1, Paragraph 2	Supports position of the Coalition for San Francisco Neighborhoods.		Not applicable to CEQA
3DD	Linda Yacobucci	Page 1, Paragraph 2	Address alternative project site locations outside of Golden Gate Park.	Project Description Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
3DD	Linda Yacobucci	Page 1, Paragraph 2	Recommends that recycled water used for irrigation should not be treated to tertiary standards.	Project Description	
3DD	Linda Yacobucci	Page 1, Paragraph 3	Opposes recycled water facility in any San Francisco park.	Project Description Alternatives	
4A	Peter Drekmeier, Tuolumne River Trust	Page 37, Paragraph 3	Supports use of recycled water.		Supports use of recycled water
4A	Peter Drekmeier, Tuolumne River Trust	Page 39, Paragraph 2	Address alternative project site location.	Alternatives	
4A	Peter Drekmeier, Tuolumne River Trust	Page 39, Paragraph 3 Page 40, Paragraph 1	Address the cost of reverse osmosis water treatment.		Not applicable to CEQA
4A	Peter Drekmeier, Tuolumne River Trust	Page 40, Paragraph 2	Identify drought sensitive plants in Golden Gate Park.	Biological Resources	List of salt-sensitive plants and locations found within the Golden Gate Park Master Plan.
4A	Peter Drekmeier, Tuolumne River Trust	Page 40, Paragraph 2	Recommends transitioning plants in Golden Gate Park to more salt-tolerate varieties.		Golden Gate Park landscaping plant selection not within the scope of the EIR, although project specific landscaping will be described
4A	Peter Drekmeier, Tuolumne River Trust	Page 40, Paragraph 3 Page 41, Paragraph 2	Address project alternatives including partnering with other water suppliers or groundwater use.	Alternatives	
4B	Martha Hoffman	Page 67, Paragraph 4 Page 68, Paragraph 1	Expresses concern about displacement of existing wildlife in the proposed project location.	Biological Resources	
4B	Martha Hoffman	Page 68, Paragraph 1	Expresses opposition to project location.	Project Description Alternatives	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 59, Paragraph 2	Identify all alternative sites and explain why they are not being considered further.	Project Description Alternatives	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 59, Paragraphs 2-6	Expresses concern about land use consistency.	Land Use Plans and Policies	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 60, Paragraph 1	Address the project's ability to enhance recreational opportunities.	Project Description	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 60, Paragraph 3 Page 61, Paragraph 5	Address the proposed vision of the entire four acre project site.	Project Description	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 62, Paragraph 4	Address alternative project site locations outside of Golden Gate Park.	Alternative	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 62, Paragraph 4 Page 63, Paragraph 1	Address alternative treatment facility designs, including a completely underground facility.	Alternatives	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 63, Paragraph 2	Address rationale for new pipeline installation and discuss viability of existing pipes.	Project Description	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 63, Paragraph 2	Address rationale for water treatment levels and discuss alternative processes.	Project Description Alternatives	
4C	Katherine Howard, Golden Gate Park Preservation Alliance	Page 63, Paragraph 2	Address rationale for a visitor's center.	Project Description	
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 33, Paragraph 2	Supports reverse osmosis treatment.		Supports reverse osmosis treatment
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 33, Paragraph 3	Address background of proposed project.	Introduction and Background Project Description	
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 33, Paragraph 4 Page 34, Paragraph 4 Page 35, Paragraph 3 Page 36, Paragraph 2	Address project alternatives including desalination and surface water runoff.	Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 34, Paragraph 5 Page 35, Paragraph 1	Address impacts of recycled water on wildlife.	Biological Resources	
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 35, Paragraph 2	Address impacts of recycled water on public health and air quality.	Hazards and Hazardous materials Air Quality	
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 36, Paragraph 3	Address impacts of waste disposal at the Oceanside WCPC ocean outfall pipeline.	Hazards and Hazardous Materials Biological Resources	
4D	Richard K. Fong, Recreation and Parks Department Advisory Board	Page 36, Paragraph 4	Provide mitigations measures for significant impacts.	Environmental Setting and Impacts	
4E	Hiroshi Fukudu	Page 25, Paragraph 4	Provide a description of the project site location selection process.	Project Description Alternatives	
4E	Hiroshi Fukudu	Page 26, Paragraph 1	Expresses concern about loss of open space in Golden Gate Park.	Land Use Recreation	
4E	Hiroshi Fukudu	Page 26, Paragraph 2	Address project consistency with Golden Gate Park Master Plan.	Plans and Policies Land Use	
4E	Hiroshi Fukudu	Page 26, Paragraph 3	Address rationale for level of recycled water treatment.	Project Description	
4F	Bert Lehrer	Page 27, Paragraph 1	Address the purpose of the proposed project and relationship to the SF Groundwater Supply Project.	Introduction and Background Project Description	
4F	Bert Lehrer	Page 27, Paragraph 2	Expresses concern about water quality of groundwater for human consumption.		Not applicable to the proposed project
4F	Bert Lehrer	Page 27, Paragraph 3 Page 28, Paragraph 2	Expresses concern about groundwater contaminants and public health.		Not applicable to the proposed project

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4G	Greg Miller	Page 41, Paragraph 4 Page 42, Paragraph 1	Expresses opposition to treatment facility location in Golden Gate Park.	Project Description Alternatives	
4G	Greg Miller	Page 42, Paragraph 1	Address aesthetic impacts on the West of End of Golden Gate Park.	Aesthetics	
4G	Greg Miller	Page 42, Paragraph 2	Address impacts on the recreational experience of users.	Recreation	
4G	Greg Miller	Page 42, Paragraphs 2-4	Address impacts on historic landmarks in the project vicinity.	Cultural and Paleontological Resources	
4G	Greg Miller	Page 42, Paragraph 3	Address consistency with Golden Gate Park Master Plan.	Plans and Policies Land Use	
4G	Greg Miller	Page 42, Paragraph 4	Address methods to conceal the proposed treatment facility from public view.	Project Description Aesthetics	
4G	Greg Miller	Page 43, Paragraph 1	Address noise impacts related to the proposed facility operation.	Noise	
4G	Greg Miller	Page 43, Paragraph 2	Address impacts of odors or smells from the proposed facility	Air Quality Recreation	
4G	Greg Miller	Page 43, Paragraph 3	Describe proposed exterior lighting and address related aesthetic impacts.	Project Description Aesthetics	
4G	Greg Miller	Page 43, Paragraph 4 Page 44, Paragraph 3	Address cumulative impacts related to the recreation experience of the West End of Golden Gate Park.	Cumulative Impacts	
4G	Greg Miller	Page 44, Paragraph 3	Address impacts on historic integrity of Golden Gate Park as a registered national historic property.	Cultural and Paleontological Resources	
4G	Greg Miller	Page 44, Paragraph 4	Address potential future expansion of the treatment facility.	Project Description	
4G	Greg Miller	Page 45, Paragraph 2	Address residual contaminants in the treated recycled water and the potential of aquifer contamination.	Hydrology and Water Quality	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4G	Greg Miller	Page 45, Paragraph 3 Page 46, Paragraph 2	Address alternative project site locations.	Alternatives	
4H	Mary Anne Miller	Page 28, Paragraph 4	Address land use consistency between the proposed project and Golden Gate Park.	Land Use Plans and Policies	
4H	Mary Anne Miller	Page 29, Paragraph 2-5 Page 30, Paragraphs 2, 4, 5	Address intended use of the entire four acre project site within Golden Gate Park.	Project Description	
4H	Mary Anne Miller	Page 30, Paragraph 3	Address consistency with Golden Gate Park Master Plan.	Plans and Policies Land Use	
4H	Mary Anne Miller	Page 31, Paragraph 1	Address impacts to historical landmarks in the vicinity of the proposed project.	Cultural and Paleontological Resources	
4H	Mary Anne Miller	Page 31, Paragraph 5	Address economic value of the project.		Economic value of project not applicable to CEQA
4H	Mary Anne Miller	Page 32, Paragraphs 2-3	Address growth inducement impacts.	Other CEQA Issues	
4H	Mary Anne Miller	Page 32, Paragraph 5	Address project alternatives.	Alternatives	
4I	Douglas Nelson	Page 46, Paragraph 5 Page 47, Paragraph 1	Expresses concern that the Richmond Sunset Treatment Plant was an inappropriate use of parkland.	Land Use Plans and Policies	
4I	Douglas Nelson	Page 47, Paragraph 4	Recommends updating the Golden Gate Park well water system rather than implementing the proposed project.	Alternatives	
4I	Douglas Nelson	Page 48, Paragraph 3 Page 49, Paragraph 1	Address impacts of recycled water on contamination of the groundwater aquifer.	Hydrology and Water Quality	
4I	Douglas Nelson	Page 49, Paragraph 2	Address impacts on the historic integrity of Golden Gate Park.	Cultural and Paleontological Resources	
4I	Douglas Nelson	Page 49, Paragraph 3	Address project alternatives.	Alternatives	
4I	Douglas Nelson	Page 49, Paragraph 4	Expresses concern about objective review of the project when project design is concurrent with the EIR process.		

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4I	Douglas Nelson	Page 50, Paragraph 1 Page 51, Paragraph 1	Address cost of the proposed project.		Cost not Applicable to CEQA
4J	Richard Estl Peterson	Page 66, Paragraph 4 Page 67, Paragraph 1	Address water conservation alternatives to the proposed project.	Alternatives	
4J	Richard Estl Peterson	Page 67, Paragraph 3	Address cumulative effects of recycled water use in San Francisco.	Cumulative Effects	
4K	David Pilpel	Page 20, Paragraph 5	Provide project description, purpose, and need.	Project Description	
4K	David Pilpel	Page 20, Paragraph 6	Provide descriptions of the treatment facility size location and treatment processes.	Project Description	
4K	David Pilpel	Page 20, Paragraph 6 Page 20, Paragraph 1	Address project site alternatives.	Alternatives	
4K	David Pilpel	Page 21, Paragraph 2	Provide proposed end-user information and proposed recycled water demand and water quality needs.	Project Description	
4K	David Pilpel	Page 21, Paragraph 3	Address impacts on Golden Gate Park open space.	Recreation Land Use	
4K	David Pilpel	Page 21, Paragraph 3	Address impacts on the existing uses of the Golden Gate Park site.	Land Use Recreation	
4K	David Pilpel	Page 21, Paragraph 4	Identify mitigation measures and the agencies responsible for enforcing them.	Project Description Environmental Setting and Impacts	
4K	David Pilpel	Page 21, Paragraph 5 Page 22, Paragraph 1	Address cumulative impacts related to land use, water, recreation, open space, and transportation.	Cumulative Impacts	
4K	David Pilpel	Page 22, Paragraph 2	Explain the water supply agreement defined under WSIP (10 MGD offset by year 2018).	Introduction and Background	
4K	David Pilpel	Page 22, Paragraph 3	Address water rates for the recycled water customers.		Cost not applicable to CEQA
4K	David Pilpel	Page 22, Paragraph 4	Address applicable approvals and permits needed to complete the project.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4L	Jose Quinteiro	Page 18, Paragraph 4 Page 19, Paragraph 1	Expresses concern about playground located near proposed treatment facility.	Project Description Recreation	
4L	Jose Quinteiro	Page 18, Paragraph 5	Expresses concern about safety of conveying wastewater from Oceanside WCPC to the proposed treatment facility.	Geology and Soils Hazards and Hazardous Materials	
4L	Jose Quinteiro	Page 19, Paragraph 2	Address aesthetic impacts of treatment facility.	Aesthetics	
4L	Jose Quinteiro	Page 19, Paragraph 3	Address operational impacts of the treatment facility.	Environmental Setting and Impacts	
4M	Adam Raskin	Page 22, Paragraph 6 Page 23, Paragraph 1	Address impacts related to chemicals, odor, noise, and traffic.	Hazards and Hazardous Materials Air Quality Noise Transportation and Circulation	
4M	Adam Raskin	Page 23, Paragraph 3	Recommends using recycled water for toilets.	Project Description	
4M	Adam Raskin	Page 23, Paragraph 4	Provide rationale for need of recycled water.	Project Description	
4M	Adam Raskin	Page 23, Paragraph 4 Page 24, Paragraph 1	Expresses concern about safety of conveying wastewater from Oceanside WCPC to the proposed treatment facility.	Geology and Soils Hazards and Hazardous Materials	
4M	Adam Raskin	Page 24, Paragraph 2	Expresses concern about energy costs and sources used for the project.	Mineral and Energy Resources	Cost of energy not applicable to CEQA
4M	Adam Raskin	Page 24, Paragraph 3	Address cumulative impacts of projects in the vicinity of the proposed project.	Cumulative Impacts	
4M	Adam Raskin	Page 24, Paragraph 4	Expresses concern about patchwork project planning in the area.	Cumulative Impacts	
4M	Adam Raskin	Page 25, Paragraph 2	Identify end-users and relationship to City budget.	Project Description	Budget information not applicable to CEQA
4M	Adam Raskin	Page 25, Paragraph 3	Address displacement of homeless living in the proposed project site.	Project Description	
4N	Robert Van Ravenswaay	Page 51, Paragraph 4	Address alternative project site location at Oceanside WCPC.	Alternatives	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4N	Robert Van Ravenswaay	Page 51, Paragraph 5	Address relationship between the proposed project and the SF Groundwater Supply Project.	Background and Introduction	
4N	Robert Van Ravenswaay	Page 52, Paragraphs 2-3	Address need to amend the CCSF General Plan or Golden Gate Park Master Plan for approval of this project.	Plans and Policies Land Use	
4N	Robert Van Ravenswaay	Page 52, Paragraph 4	Address impacts to potable water and public health.	Hydrology and Water Quality	
4O	George Wooding, West Twin Peaks Central Council	Page 64, Paragraph 2	Requests information regarding financial agreements between project proponent and Recreation and Parks Department.		Financial agreements not applicable to CEQA
4O	George Wooding, West Twin Peaks Central Council	Page 64, Paragraph 3	Address recycled water contamination of the groundwater aquifer.	Hydrology and Water Quality	
4O	George Wooding, West Twin Peaks Central Council	Page 64, Paragraph 4 Page 65, Paragraph 1	Address rationale for level of water treatment and identify levels of treated irrigation water currently used in San Francisco.	Project Description	
4O	George Wooding, West Twin Peaks Central Council	Page 65, Paragraph 2	Expresses opposition regarding pipeline alignment location.	Project Description Alternatives	
4O	George Wooding, West Twin Peaks Central Council	Page 65, Paragraph 3 Page 66, Paragraph 1	Address impact of coastal erosion and sea-level rise on the proposed pipelines in the Western Transport Tunnel.	Geology and Soils Hydrology and Water Quality	
4P	Nancy Wuerfel	Page 53, Paragraphs 3-4	Expresses concerns about project purpose and relationship to WSIP.	Background and Introduction	
4P	Nancy Wuerfel	Page 53, Paragraph 5 Page 54, Paragraphs 3, 5 Page 56, Paragraph 5	Expresses concern about cost of project design, construction, and operation.		Cost not applicable to CEQA
4P	Nancy Wuerfel	Page 54, Paragraph 4	Address alternative project site location.	Alternatives	
4P	Nancy Wuerfel	Page 55, Paragraph 2	Address the long term plans of the Golden Gate Park site, including treatment facility expansion.	Project Description	

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTER

Commenter		Page, Paragraph	Summary of Comment	CEQA Subject Area	Comments Not Applicable to CEQA or the Proposed Project
4P	Nancy Wuerfel	Page 56, Paragraphs 2-3 Page 57, Paragraph 2	Address impacts of natural disasters, including tsunamis and earthquakes, on the proposed project.	Geology and Soils	
4P	Nancy Wuerfel	Page 57, Paragraph 3	Address rationale for visitor center project component.	Project Description	
4P	Nancy Wuerfel	Page 57, Paragraph 5 Page 58, Paragraph 2	Address City Charter and necessity of vote of the electors for parkland sold or leased for non-recreational uses.	Project Description	
4Q	Linda Yacobucci	Page 69, Paragraph 7	Supports use of recycled water.		Supports use of recycled water
4Q	Linda Yacobucci	Page 69, Paragraph 7	Opposes treatment facility location within Golden Gate Park.	Project Description Alternatives	
4Q	Linda Yacobucci	Page 69, Paragraph 3	Expresses preference regarding treatment facility location.	Alternatives	
4Q	Linda Yacobucci	Page 69, Paragraph 4-5	Expresses concern about project noticing.	Introduction and Background	
4Q	Linda Yacobucci	Page 70, Paragraph 3	Provide description of treatment facility footprint.	Project Description	
4Q	Linda Yacobucci	Page 70, Paragraph 4	Expresses concern about removal and replacement trees.	Biological Resources	
4Q	Linda Yacobucci	Page 70, Paragraph 5	Address alternative project sites.	Alternatives	
4Q	Linda Yacobucci	Page 71, Paragraph 3-4 Paragraph 4	Address Impacts to wildlife.	Biological Resources	

APPENDICES

- A. Notice of Preparation (NOP) and NOP Notice of Availability
- B. Scoping Meeting Materials
- C. Scoping Meeting Transcripts
- D. Comments Received During EIR Scoping Process

APPENDIX A

Notice of Preparation and NOP Notice of Availability

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SAN FRANCISCO PLANNING DEPARTMENT

September 8, 2010

To Responsible Agencies, Trustee Agencies, and Interested Parties:

**RE: CASE NO. 2008.0091E – SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT
REVISED NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT
AND NOTICE OF PUBLIC SCOPING MEETING**

A revised Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the above-referenced project, described below, has been issued by the Planning Department. The Planning Department previously issued a NOP for the above-referenced project on June 5, 2008, and two scoping meetings were held on June 16 and 17, 2008 in the project vicinity. The San Francisco Public Utilities Commission (SFPUC) has since modified the proposed project, and the revised NOP/Notice of Public Scoping Meeting is either attached or is available upon request from Carrie Dovzak, whom you may reach at (415) 575-9030 or at the above address. The NOP is also available online at <http://tinyurl.com/puccases>. This notice is being sent to you because you have been identified as potentially having an interest in the project or the project area.

Project Description:

Subsequent to the initial NOP and scoping period in June 2008, the SFPUC modified the San Francisco Westside Recycled Water Project (the project). As a result, a revised NOP has been prepared to inform you of the changes to the project. These changes are summarized below:

- The proposed location of the recycled water treatment facility would be located at the site of the former Richmond-Sunset WPCP within Golden Gate Park;
- The proposed treatment processes would include reverse osmosis as needed to meet water quality requirements for use in Golden Gate Park;
- The list of recycled water customers would include the Presidio Golf Course;
- San Francisco Zoo and smaller parks in the southern part of the City would not initially be provided with recycled water, though recycled water could be made available to these customers in the future; and
- The proposed storage and distribution facilities would be located in areas that are compatible with the revised location of the recycled water treatment facility.

The primary purpose of the project, however, is the same: to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The revised project would meet the current demands of several SFPUC customers with substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and the Presidio Golf Course. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers.

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Information:
415.558.6377

The site proposed for the recycled water treatment facility was changed from the Oceanside Water Pollution Control Plant (WPCP) to the site of the former Richmond-Sunset WPCP within Golden Gate Park. The site is currently used by the San Francisco Recreation and Parks Department for park maintenance and storage. This location was selected because of its proximity to recycled water customers, the availability of existing conveyance facilities to and from the site, the availability of land, and the compatibility of project land use requirements with the current and previous land use as a treatment facility. Effluent (treated to secondary treatment standards at the Oceanside WPCP) would be conveyed to the recycled water treatment facility site via an existing pipeline within the Westside Transport Box located beneath the Great Highway. The effluent would be processed to advanced tertiary standards at the proposed recycled water treatment facility, and this highly treated recycled water would be used at Golden Gate Park (including the Panhandle portion of the park), the Lincoln Park Golf Course, and the Presidio Golf Course, primarily for landscape irrigation. Recycled water would also be used for toilet and urinal flushing as well as irrigation at the California Academy of Sciences in Golden Gate Park.

The revised project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. The project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives.

The Planning Department has determined that an EIR must be prepared for the proposed project prior to any final decision regarding whether to approve the project. The purpose of the EIR is to provide information about potential significant physical environmental effects of the proposed project, to identify possible ways to minimize the significant effects, and to describe and analyze possible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove the project. However, prior to making any such decision, the decision-makers must review and consider the information contained in the EIR.

The San Francisco Planning Department will hold one **PUBLIC SCOPING MEETING** on September 23, 2010 at the location listed below. The purpose of this meeting is to receive oral comments to assist the Planning Department in reviewing the scope and content of the environmental impact analysis and information to be contained in the EIR for the project. Written comments will also be accepted until the close of business on October 13, 2010. Written comments should be sent to Bill Wycko, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA, 94103; by fax to (415) 558-6409; or by e-mail to carrie.dovzak@sfgov.org. Comments that were received in response to the initial June 2008 NOP remain on file with the Planning Department and will be considered during environmental review of the revised project proposal to the extent that they remain relevant to the revised project.

Golden Gate Park Senior Center – San Francisco

September 23, 2010

7:00 PM (starting promptly)

6101 Fulton Street (at 37th Avenue)



If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency. If you have questions concerning environmental review of the proposed project, please contact **Carrie Dovzak** at (415) 575-9030 or carrie.dovzak@sfgov.org.



SAN FRANCISCO PLANNING DEPARTMENT

Revised Notice of Preparation of an Environmental Impact Report

Date: September 8 2010
Case No.: **2008.0091E**
Project Title: **San Francisco Westside Recycled Water Project**
Location: The proposed project is located in the western portion of San Francisco. Proposed facilities would be constructed between the Oceanside Water Pollution Control Plant and the Presidio Golf Course.

BPA Nos.: N/A
Zoning: N/A
Block/Lot: N/A
Lot Size: Various
Project Sponsor Barbara Palacios, San Francisco Public Utilities Commission (415) 554-0718

Lead Agency: San Francisco Planning Department
Staff Contact: Carrie Dovzak – (415) 575-9030
 carrie.dovzak@sfgov.org

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PROJECT DESCRIPTION

The primary purpose of the San Francisco Westside Recycled Water Project (the project) is to reduce the City and County of San Francisco’s reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. Subsequent to the initial Notice of Preparation (NOP) and scoping period in June 2008, the San Francisco Public Utilities Commission (SFPUC) modified the project. As a result, a revised NOP has been prepared to inform you of the changes to the project. These changes are summarized below:

- The proposed location of the recycled water treatment facility would be located at the site of the former Richmond-Sunset WPCP within Golden Gate Park;
- The proposed treatment processes would include reverse osmosis as needed to meet water quality requirements for use in Golden Gate Park;
- The list of recycled water customers would include the Presidio Golf Course;
- San Francisco Zoo and smaller parks in the southern part of the City would not initially be provided with recycled water, though recycled water could be made available to these customers in the future; and
- The proposed storage and distribution facilities would be located in areas that are compatible with the revised location of the recycled water treatment facility.

The primary purpose of the project, however, is the same: to reduce the City and County of San Francisco's reliance on potable water for nonpotable uses, such as irrigation, through the production and distribution of highly treated recycled water. The revised project would meet the current demands of several SFPUC customers with substantial irrigation needs, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and the Presidio Golf Course. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers.

The site proposed for the recycled water treatment facility was changed from the Oceanside Water Pollution Control Plant (WPCP) to the site of the former Richmond-Sunset WPCP within Golden Gate Park. The site is currently used by the San Francisco Recreation and Parks Department for park maintenance and storage. This location was selected because of its proximity to recycled water customers, the availability of existing conveyance facilities to and from the site, the availability of land, and the compatibility of project land use requirements with the current and previous land use as a treatment facility.

Effluent (treated to secondary treatment standards at the Oceanside WPCP) would be conveyed to the recycled water treatment plant site via an existing pipeline within the Westside Transport Box located beneath the Great Highway. The effluent would be processed to advanced tertiary standards at the proposed recycled water treatment facility, and this highly treated recycled water would be used at Golden Gate Park (including the Panhandle portion of the park), the Lincoln Park Golf Course, and the Presidio Golf Course, primarily for landscape irrigation. Recycled water would also be used for toilet and urinal flushing as well as irrigation at the California Academy of Sciences in Golden Gate Park.

The revised project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. The project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives.

FINDING

This project may have a significant effect on the environment and an environmental impact report (EIR) is required. This determination is based upon the criteria of the CEQA Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and for the reasons documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

PUBLIC SCOPING PROCESS

Pursuant to California Public Resources Code Section 21083.9 and California Environmental Quality Act Guidelines Section 15206, a public scoping meeting will be held to receive oral comments concerning the scope of the EIR. The meeting will be held on **September 23, 2010, 7:00 PM** (starting promptly) at the **Golden Gate Park Senior Center, 6101 Fulton Street (at 35th Avenue), San Francisco, CA, 94121**. Written comments will also be accepted at this meeting and until the close of business on October 13, 2010. Written comments should be sent to Bill Wycko, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA, 94103. Comments received in response to the initial June 2008 NOP remain on file with the Planning Department and will be considered during environmental review of the revised project proposal to the extent that they remain relevant to the revised project.

If you work for a responsible state agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

September 2, 2010
Date


Bill Wycko
Environmental Review Officer

REVISED NOTICE OF PREPARATION

San Francisco Westside Recycled Water Project Project Case No. 2008.0091E

1.0 Overview

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (the project). To meet California Environmental Quality Act (CEQA) requirements, the San Francisco Planning Department's Major Environmental Analysis (MEA) Division will prepare and distribute an environmental impact report (EIR) to describe and analyze the environmental effects of the project. The Planning Department previously issued a Notice of Preparation (NOP) for the project on June 5, 2008, and two scoping meetings were held on June 16 and 17, 2008 in the project vicinity. The SFPUC has since revised the proposed project (as discussed below in Sections 1.1 and 4.0), and this revised NOP describes the proposed facilities and potential environmental effects of the project and announces the date of a scoping meeting to receive public comment.

The primary purpose of the project is to reduce the City and County of San Francisco's (CCSF) reliance on potable water for nonpotable uses such as irrigation through the production and distribution of highly treated recycled water. The project would meet the current demands of several SFPUC customers with substantial irrigation demands, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and the Presidio Golf Course. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers (see **Figure 1**). The project is based on the SFPUC's *Recycled Water Master Plan* (SFPUC, 2006), and is described in detail in Section 4.0.

The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed to: (1) maintain high-quality water; (2) reduce vulnerability to earthquakes; (3) increase delivery reliability and improve the ability to maintain the system; (4) meet customer purchase requests in nondrought and drought periods; (5) enhance sustainability in all system activities; and (6) achieve a cost-effective, fully operational system. The project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives (San Francisco Planning Department, 2008).

1.1 Project History and Development

As described above, the project would contribute to meeting the level of service goals and system performance objectives identified in the WSIP. These goals include providing a total of 10 million gallons per day (mgd) of water supply from recycled water, groundwater, and conservation projects to meet retail demand in San Francisco. The original WSIP project description indicated that



SOURCE: SFPUC, 2007; 2010; DOA, 2005; ESRI, 2008

San Francisco Westside Recycled Water Project

Figure 1
Project Location

approximately 4 mgd of the 10 mgd would come from a recycled water project in San Francisco, and that this project would have two components: the Westside Baseline and Harding Park/Lake Merced projects. Originally, the Westside Baseline Project proposed to deliver 2.8 mgd of recycled water to customers in western San Francisco, and the Harding Park/Lake Merced Project proposed to deliver 1.3 mgd of recycled water for irrigation of the Harding Park Golf Course and recharge of Lake Merced. The scope of the proposed project described in this NOP has been redefined to include only the components of the Westside Baseline Project, and it is now referred to as the San Francisco Westside Recycled Water Project. The refined Lake Merced and Harding Park projects are further described below. While the projects originally described in the WSIP have been refined, the SFPUC is still committed to meeting the 10 mgd of demand through conservation, recycled water, and groundwater projects.

1.1.1 Lake Merced Project

The Lake Merced Levels Restoration Alternatives Report (SFPUC, 2008a) recommended a combination of wetlands-treated stormwater and groundwater as the preferred water source for Lake Merced rather than recycled water. As a result, the Lake Merced component has been eliminated from the San Francisco Westside Recycled Water Project and the amount of water that would have been supplied for Lake Merced restoration by recycled water is proposed to be supplied by stormwater and/or groundwater.

1.1.2 Harding Park Recycled Water Project

The City of Daly City, in partnership with the SFPUC, is currently implementing the Harding Park Recycled Water Project. The Project will provide recycled water from the North San Mateo County Sanitation District (a subsidiary of Daly City), to irrigate the Harding Park and Fleming Golf Courses, public golf courses under the jurisdiction of the San Francisco Recreation and Parks Department. The project will use recycled water produced at the existing recycled water treatment facility at the North San Mateo County Sanitation District's wastewater treatment plant in Daly City. The Project consists of construction and operation of the infrastructure necessary to convey recycled water from the recycled water facility to the Harding Park irrigation system. Daly City certified the Harding Park Recycled Water Project Environmental Impact Report (State Clearinghouse No. 2009-012004) in 2009. Project construction is expected to begin in November, 2010 and end in 2012. Although the Harding Park Recycled Water Project is part of the WSIP, it is being implemented separately from the proposed project.

1.1.3 Project Changes Following the 2008 NOP Release

Following the June 2008 NOP release and scoping meetings by the San Francisco Planning Department, the SFPUC revised components of the project:

- The proposed location of the recycled water treatment facility would be located at the site of the former Richmond-Sunset WPCP within Golden Gate Park;
- The proposed treatment processes would include reverse osmosis as needed to meet water quality requirements for use in Golden Gate Park;

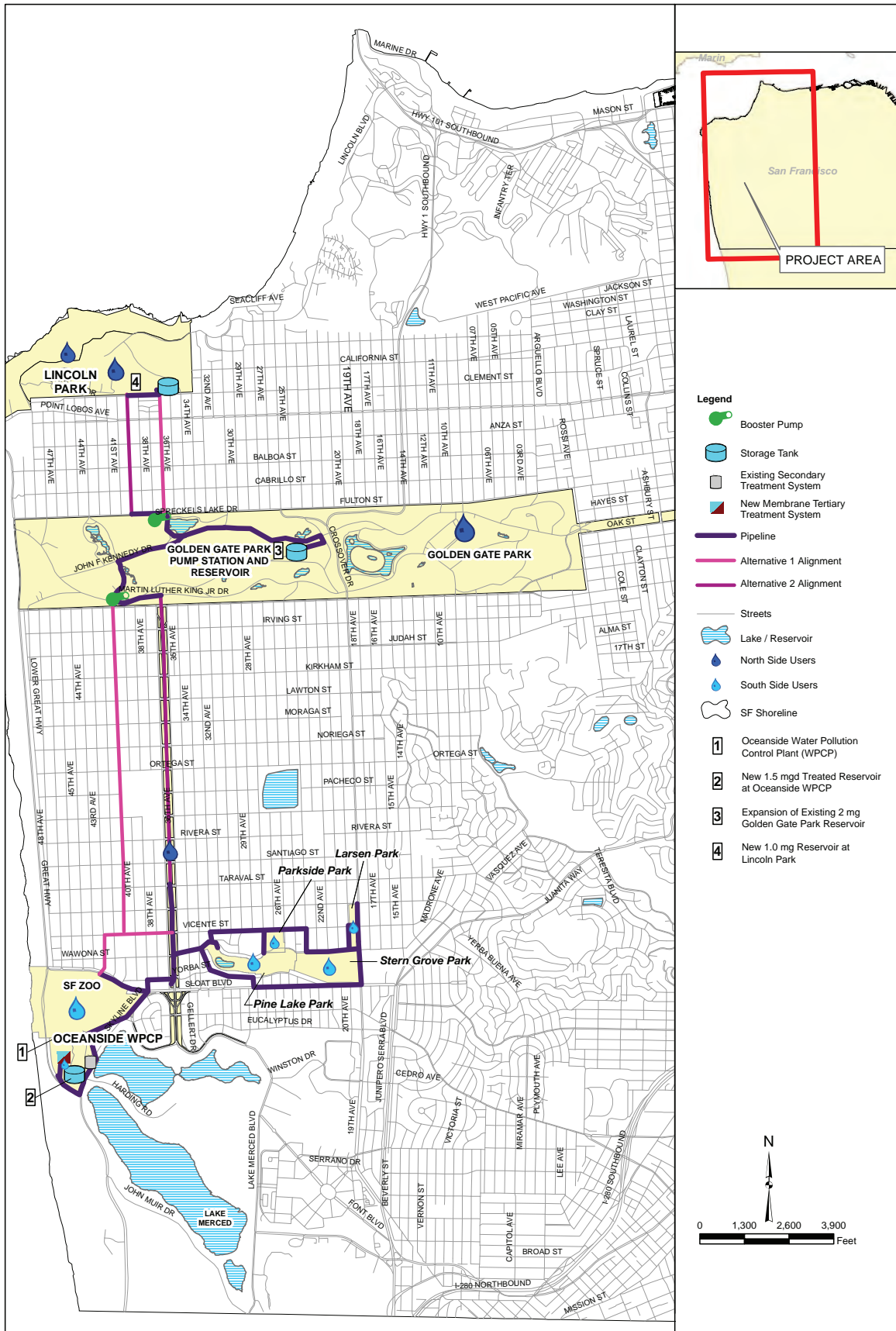
- The list of recycled water customers would include the Presidio Golf Course;
- San Francisco Zoo and smaller parks in the southern part of the City would not initially be provided with recycled water, though recycled water could be made available to these customers in the future; and
- The proposed storage and distribution facilities would be located in areas that are compatible with the revised location of the recycled water treatment facility.

The project location and facilities included in the June 2008 NOP release are shown in **Figure 2**. The site currently proposed for the recycled water treatment facility was changed from the Oceanside Water Pollution Control Plant (WPCP) to the site of the former Richmond-Sunset WPCP within Golden Gate Park (see Figure 1). The site is currently used by the San Francisco Recreation and Parks Department for park maintenance and storage. This location was selected because of its proximity to recycled water customers, the availability of existing conveyance facilities to and from the site, the availability of land, and the compatibility of project land use requirements with the current and previous land use as a treatment facility. Effluent (treated to secondary treatment standards at the Oceanside WPCP) would be conveyed to the recycled water treatment facility site via an existing pipeline within the Westside Transport Box located beneath the Great Highway. The effluent would be processed to tertiary standards (see Section 4.2 below) at the proposed recycled water treatment facility, and this highly treated recycled water would be used at Golden Gate Park (including the Panhandle portion of the Park), Lincoln Park Golf Course, and the Presidio Golf Course, primarily for landscape irrigation. Recycled water would also be used for toilet and urinal flushing, as well as irrigation, at the California Academy of Sciences in Golden Gate Park. SFPUC determined that the San Francisco Zoo and smaller parks in the southern part of the City would not initially be provided with recycled water because the irrigation water demand for these areas is too small to justify the cost of construction of distribution facilities, though recycled water could be made available to these customers in the future.

Implementation of the project is related to the SFPUC's San Francisco Groundwater Supply Project, which involves developing local groundwater supply and blending that supply with surface water supply. The Groundwater Supply Project would convert two existing irrigation wells at Golden Gate Park to potable use; however, those wells would not be used to supply municipal water under the Groundwater Supply Project unless the San Francisco Westside Recycled Water Project is implemented and recycled water is available for Golden Gate Park landscaping requirements, or another landscaping water source is identified. Public scoping for the San Francisco Groundwater Supply Project (San Francisco Planning Department Case No. 2008.1122E, available online at <http://tinyurl.com/puccases>) was completed on January 30, 2010; it is expected that the Draft EIR for the Groundwater Supply Project will be available for public review in spring 2011.

1.1.4 Recycled Water Demand

As stated above, the WSIP originally projected that the Westside Baseline Project would serve a recycled water demand of 2.8 mgd. The SFPUC has since refined the recycled water demand estimate for users on the west side of San Francisco and has identified three major recycled water customers for the project: Golden Gate Park, Lincoln Park/Lincoln Park Golf Course, and the Presidio Golf



San Francisco Westside Recycled Water Project
Figure 2
 2008 NOP Proposed Project Location

Course. Together, the recycled water demand for these customers is estimated at 1.6 mgd (annual average). The project would be sized to accommodate peak-day demands of up to 4.5 mgd (or 2.0 mgd annual average) in anticipation that the facility could also provide future service to other nearby parks or irrigated medians. However, distribution and storage facilities for service to these potential future customers are not proposed at this time. **Table 1** summarizes the proposed customers and their respective demands that would be served by the project. The project no longer includes serving some of the customers that were initially identified in the June 2008 NOP, such as the San Francisco Zoo, San Francisco State University, Stern Grove, and smaller San Francisco parks and landscaped medians in the southern part of the city. Recycled water could be made available to these and other users in the future; supplemental CEQA documentation would be prepared, as appropriate, to consider the environmental effects of adding new users to the system.

**TABLE 1
SUMMARY OF PROPOSED RECYCLED WATER CUSTOMERS**

End User	Average-Day Annual Demand (mgd)	Peak-Day Demand (mgd)
<i>Golden Gate Park</i>		
Irrigation/California Academy of Sciences	0.94	2.41
Lake Fill	0.4	0.4
<i>Lincoln Park Golf Course</i>		
Irrigation	0.14	0.37
<i>Presidio Golf Course</i>		
Irrigation	0.12	0.4
<i>Capacity for Potential Future Users</i>		
Irrigation	0.4	0.9
Total	2.0	4.5

mgd = million gallons per day

SOURCES: RMC, 2009; SFPUC, 2010.

2.0 Environmental Review Process

The San Francisco Planning Commission certified the WSIP Program Environmental Impact Report (PEIR) in October 2008. The PEIR addressed the potential environmental impacts of the WSIP facilities on a programmatic level and evaluated regional water supply alternatives. The PEIR is available on the San Francisco Planning Department website at <http://tinyurl.com/puccases>. The Planning Department is preparing a project-specific EIR to evaluate the effects of the proposed project on the environment. The EIR will be prepared in compliance with CEQA Guidelines Section 15161 and will address project-specific construction and operational impacts.

The first step in the environmental review process under CEQA is the formal public scoping process, for which this revised NOP has been prepared. The revised NOP will be circulated for a 30-day public review period and a public scoping meeting will be held (see Section 3.0, below). The purpose

of the public scoping phase is to solicit public comments to aid in determining the scope and focus of the environmental impact analysis to be addressed in the EIR. Following the public scoping phase, a Draft EIR will be prepared and circulated for a 45-day public review period. Public comments on the Draft EIR will be accepted in writing during the review period, or verbally at the formal public hearing to be held by the San Francisco Planning Commission. The San Francisco Planning Department will then prepare a Comments and Responses document, which will respond to comments on environmental issues raised during the public review period. This document will be considered by the San Francisco Planning Commission, along with the Draft EIR and any revisions to the draft based on the comments and responses, for certification as the Final EIR.

The project includes the Presidio Golf Course as a recycled water customer, as well as construction of a pipeline and water storage tank for distribution of recycled water to the Presidio Golf Course. The Presidio Golf Course is within the Presidio of San Francisco (Presidio), which is part of the Golden Gate National Recreation Area, a National Park unit. As such, the portion of the project within the Presidio is subject to federal policies and guidelines, including the National Environmental Policy Act (NEPA). The Presidio Trust, a federal government corporation and executive branch agency created by Congress in 1996, oversees management of the interior portion of the Presidio, including the Presidio Golf Course, and will serve as the lead agency for NEPA analysis of the project within the Presidio.

3.0 Public Scoping Meeting

Following the release of this NOP, the San Francisco Planning Department will hold a scoping meeting at the following location:

Golden Gate Park Senior Center – San Francisco
September 23, 2010
7:00 p.m. (starting promptly)
6101 Fulton Street (at 37th Avenue)

The public will have the opportunity to verbally comment or submit written comments at the scoping meeting. In addition, the San Francisco Planning Department will accept written comments by mail, email, or fax until the close of business on October 13, 2010. The comments received will assist the San Francisco Planning Department in determining the scope and focus of the environmental impact analysis to be addressed in the EIR.

Written comments should be mailed to the San Francisco Planning Department, Attn: Bill Wycko, Environmental Review Officer, SF Westside Recycled Water Project, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479; sent by fax to (415) 558-6409; or submitted by email to Carrie Dovzak, the CEQA coordinator for this project, at carrie.dovzak@sfgov.org.

4.0 Project Description

4.1 Project Objectives

On October 30, 2008, the SFPUC adopted the WSIP (known as the “Phased WSIP Variant”), which will improve the regional water system with respect to water quality, seismic response, and water delivery based on a planning horizon through the year 2030. The WSIP will also improve the regional system with respect to water supply to meet water delivery needs in the SFPUC service area through the year 2018. The proposed WSIP area spans seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco.

One of the WSIP goals is to meet customer water needs in non-drought and drought periods, and two of the WSIP system performance objectives are to: diversify water supply options during non-drought and drought periods, and improve the use of new water sources and drought management strategies, including use of groundwater, recycled water, conservation, and transfers. The adopted WSIP includes development of 20 mgd of conservation, recycled water, and groundwater within the SFPUC service area (10 mgd in the retail service area and 10 mgd in the wholesale service area).

The project would contribute to this goal through the development of recycled water as an alternative water supply for non-potable uses in the retail service area, thereby benefiting the regional system by reducing demands for potable water. The specific objectives of the proposed project are to:

- Diversify the SFPUC’s water supplies by developing recycled water;
- Develop a new water supply in San Francisco that is both reliable and drought-resistant; and
- Reduce the use of potable water and groundwater for irrigation and other non-potable uses by supplying those demands with recycled water.

4.2 Proposed Project

4.2.1 Project Components

The project would include the following components (see Figure 1):

- Treatment. The SFPUC would convey secondary effluent¹ from the Oceanside WPCP to the proposed recycled water treatment facility to be located at the site of the former Richmond-Sunset WPCP in Golden Gate Park in San Francisco. The recycled water treatment facility would have an annual average production of up to 2.0 mgd, but would be sized to meet peak-day demands (during summer months) of up to 4.5 mgd.
- Storage. Recycled water storage facilities include:

¹ Secondary effluent treatment is a process that reduces suspended solids and biological oxygen demand in wastewater by approximately 90 percent.

1. Proposed 480,000-gallon secondary effluent storage underneath the recycled water treatment facility;
 2. Proposed on-site 1.8-million-gallon treated recycled water reservoir underneath the recycled water treatment facility;
 3. Proposed 16,200-gallon on-site tank beneath the recycled water treatment facility for decarbonation of recycled water;
 4. Use and potential upgrade of the existing central reservoir located in Golden Gate Park; and
 5. Proposed 400,000-gallon water storage tank in the Presidio Golf Course.
- Distribution. Distribution facilities include:
 1. Replacement and upgrade of pumps at the Oceanside WPCP;
 2. Proposed pump station at the recycled water treatment facility;
 3. Use and potential upgrade of existing pump station at the Golden Gate Park central reservoir;
 4. Upgrade of existing irrigation booster pumps in the Panhandle;
 5. Use of existing irrigation pump station at Lincoln Park;
 6. Approximately 5 miles of proposed pipeline (8 to 16 inches in diameter) to connect the recycled water treatment facility to proposed customers in Lincoln Park, the Presidio, and the Panhandle; and
 7. Use and potential upgrade of existing irrigation pipelines within Golden Gate Park; possible addition of a dedicated pipeline loop for fill of Golden Gate Park lakes.
 - Other. Other facilities include:
 1. Reverse osmosis concentrate disposal pipeline (approximately 2.5 miles long; 8- to 10-inch diameter) to convey brine from the recycled water treatment facility to the Oceanside WPCP outfall.

Project facilities and operation of the project are described below.

Conveyance of Secondary Effluent to Golden Gate Park

The SFPUC would use existing pipelines to convey secondary effluent from the Oceanside WPCP to Golden Gate Park. Two 3-mgd pumps (one duty and one standby pump) are currently used once per day to pump secondary effluent into the Westside Transport Box to flush out the box. Under the project, the SFPUC would pump secondary effluent from the Oceanside WPCP to the Westside Transport Box via an existing 16-inch pipeline that connects to an existing 42-inch pipeline at the Oceanside WPCP Westside Pump Station. The 42-inch line carrying the effluent continues inside the Westside Transport Box under the Great Highway to the intersection of Lincoln Way and the Great Highway. At this intersection, the 42-inch line is routed outside of the Westside Transport Box to the former Richmond-Sunset WPCP site. The 42-inch pipe is currently plugged at the Richmond-Sunset site. A small section of pipeline would be installed to connect the end of the pipe to the proposed

recycled water treatment facility. The existing pumps at the Oceanside WPCP Westside Pump Station would be replaced, increased in capacity by approximately 6 to 7 mgd each, and used to deliver secondary effluent to the proposed recycled water treatment facility. Under the project, the existing 42-inch pipeline in the Westside Transport Box might need to be upgraded. Access to this pipeline would be made available through existing hatches located along the Great Highway.

Recycled Water Treatment Plant and Storage Facilities at the Richmond-Sunset WPCP Site

The proposed recycled water treatment facility would be constructed at the eastern end of the approximately 44,000-square-foot Richmond-Sunset WPCP site in Golden Gate Park (see Figure 1). A treatment building (approximately 35,000 square feet) would be constructed to house water treatment equipment, electrical controls, pumping equipment, feed systems, and other appurtenant equipment required for the proposed treatment process summarized below. The treatment building would also contain an electrical substation, operations room, and motor control center. A chemical building and a visitor center would also be constructed adjacent to the treatment building. The proposed buildings would be approximately 20 to 30 feet high.

Up to three underground storage reservoirs would be located beneath the treatment facility:

- A 480,000-gallon reservoir to store secondary effluent as source water for the treatment plant;
- A 16,200-gallon tank for decarbonation of recycled water would be constructed if needed; and
- A 1.8-million-gallon reservoir to store the treated recycled water.

Additional storage would be provided to balance flows between the various treatment processes within the facility.

Treatment Process

The recycled water treatment facility would treat secondary effluent from the Oceanside WPCP to remove suspended and dissolved solids, bacteria, viruses, organic materials, and other constituents, resulting in treated water that meets and/or exceeds the regulatory requirements of the California Department of Public Health for disinfected tertiary recycled water.² The proposed recycled water treatment process includes microfiltration/ultrafiltration (MF), reverse osmosis (RO), and ultraviolet

² The water quality criteria, treatment process requirements, and treatment reliability criteria for water recycling operations established by the California Department of Health Services are set forth in Title 22, Division 4, Chapter 3, of the California Code of Regulations. Under this regulation, "disinfected tertiary recycled water" means filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater has been disinfected by either: (1) a chlorine disinfection process following filtration that provides a CT value (the product of total chlorine residual and modal contact time measured at the same point) of not less than 450 milligram-minutes per liter at all times, with a modal contact time of at least 90 minutes, based on peak dry-weather design flow; or (2) a disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus, in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters (mL) utilizing the bacteriological results of the past 7 days for which analyses have been completed, and the number of total coliform bacteria does not exceed a MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed a MPN of 240 total coliform bacteria per 100 mL.

light (UV) disinfection. The MF membrane system would remove suspended solids. From the MF system, the treated water would be pumped to an RO membrane system to reduce dissolved salts. Recycled water for filling the Golden Gate Park lakes (Alvord Lake, Lily Pond, Stow Lake, Rainbow Falls and Pond, Lloyd Lake, Elk Glen Lake, Mallard Lake, Metson Lake, Spreckels Lake, Flycasting Pools, North Lake, Middle Lake, and South Lake) would consist only of water treated by the RO process to ensure that ammonia and nutrient levels are compatible with aquatic resources in the lakes. However, for landscape irrigation and toilet/urinal flushing at the California Academy of Sciences, the RO treated water might be blended with MF treated water. The advanced treated recycled water would be disinfected with UV disinfection.

The recycled water treatment facility would also contain chemical feed systems for coagulant, acid and base, and other chemicals that would assist the treatment process. Typically, a chlorine residual is provided in recycled water to prevent biological growth in the distribution systems and algae growth in the sprinkler systems. Inclusion of a chlorine residual in the final product water would be further evaluated during preliminary design of the system.

Recycled Water Distribution System

Distribution Pumps

Distribution pumps would be installed at the recycled water treatment facility to serve Lincoln Park, Golden Gate Park, and the Presidio Golf Course. Eight distribution pumps (five duty and three standby) with motors of up to 150 horsepower (1,700-gallon-per-minute capacity) would be installed at the facility. In addition to the pumps at the treatment facility, existing booster pump stations in the Panhandle would be upgraded (see Figure 1). The existing Lincoln Park pump station would be used to distribute recycled water to the golf course irrigation system, but would not require upgrade as part of the project.

Distribution Pipelines

Approximately 5 miles of pipeline would be constructed to connect the recycled water treatment facility to the proposed customers. The pipes would be built primarily in public rights-of-way (streets). Pipe diameters would range from 8 to 16 inches. Figure 1 shows the proposed pipeline network, which is described below.

Recycled Water Treatment Facility to Lincoln Park. The project includes two options for routing the pipeline from the recycled water treatment facility in Golden Gate Park to Lincoln Park (Option LP-1 and Option LP-2), as described below and shown in Figure 1.

Option LP-1. Under Option LP-1, the pipeline alignment would follow this route:

- North along John F. Kennedy Drive to 47th Avenue;
- North along 47th Avenue to a Golden Gate Park service road south of Fulton Street;
- East along the Golden Gate Park service road, parallel to Fulton Street;
- Exit service road through the 39th Avenue exit from Golden Gate Park to 39th Avenue; and

- North along 39th Avenue to the Lincoln Park pump station connection point (Clement Street/39th Avenue).

Option LP-2. Under Option LP-2, the pipeline would follow the same alignment as Option LP-1 until the Golden Gate Park service road. At that point, the pipeline alignment would follow this route:

- Exit service road through the 43rd Avenue exit from Golden Gate Park to 43rd Avenue;
- North along 43rd Avenue to Anza Street;
- East along Anza Street to 39th Avenue; and
- North along 39th Avenue to the Lincoln Park pump station connection point (Clement Street/39th Avenue).

Lincoln Park Golf Course to Presidio Golf Course. The project includes two options—Option P1 and Option P2—for extending the recycled water pipeline from Lincoln Park (39th Avenue and Clement Street) to the Presidio Golf Course, as described below and shown in Figure 1.

Option P-1. Under Option P-1, the pipeline alignment would follow this route from Lincoln Park:

- East along Clement Street, from the point of connection at 39th Avenue and Clement Street to 32nd Avenue;
- North along 32nd Avenue to California Street;
- East along California Street to 14th Avenue;
- North along 14th Avenue to the proposed point of delivery at 14th Avenue north of Lake Street; and
- North along Park Boulevard (inside the Presidio) to the proposed storage tank location at the north end of the golf course.

Option P-2. Under Option P-2, the pipeline alignment would follow this route from Lincoln Park:

- East along Clement Street, from the point of connection at 39th Avenue and Clement Street to 14th Avenue;
- North along 14th Avenue to the proposed point of delivery at 14th Avenue north of Lake Street; and
- North along Park Boulevard (inside the Presidio) to the proposed storage tank location at the north end of the golf course.

Recycled Water Treatment Facility to Golden Gate Park. An existing Golden Gate Park irrigation system pipeline loop within John F. Kennedy Drive and other roads within the park is connected to the existing Golden Gate Park central reservoir and pump station. The proposed project would include connections to the existing irrigation system and could require upgrades to the existing irrigation system, and at the central reservoir/pump station. In addition, a dedicated pipeline loop for delivery of lakefill recycled water could be required.

Panhandle Distribution System. The Panhandle portion of Golden Gate Park is currently served by municipal water supply and is not connected to the existing irrigation system described above. Therefore, the project would include a pipeline segment from Stanyan Street to approximately

Central Avenue (see Figure 1). The pipeline would be located along John F. Kennedy Drive and Oak Street. The pipeline would connect to existing booster pumps located within the Panhandle to provide sufficient water pressure for Panhandle recycled water distribution. Upgrade of the booster pumps would be required as part of the project.

Distribution Storage

In addition to the proposed recycled water storage at the recycled water treatment facility, the project includes use of the Golden Gate Park central reservoir and a proposed 400,000-gallon water tank at the Presidio Golf Course. As noted above, it could be necessary to upgrade the central reservoir (and pump station) under the proposed project. The Presidio Golf Course reservoir would be required to serve the golf course and other irrigated areas in the immediate vicinity. The water tank would be located at the north end of the golf course (see Figure 1); the exact tank site location has not yet been determined.

Reverse Osmosis Concentrate (Brine) Disposal

The recycled water treatment process would produce a reverse osmosis concentrate, which is a concentrated brine solution. This brine would be conveyed to the ocean for disposal through the Oceanside WPCP Southwest Ocean Outfall. A dedicated brine disposal pipeline (approximately 8 to 10 inches in diameter) would be constructed along the Great Highway to the outfall. There are two options for the brine disposal pipeline alignment:

- Install the pipeline within the existing Westside Transport Box beneath the Great Highway by sliplining an existing 54-inch pipeline at the bottom of the transport box, located approximately 25 feet below ground surface; or
- Construct the pipeline beneath the Great Highway (outside of the Westside Transport Box), beneath the landscaped berm and pedestrian path located to the east of the Great Highway, or along Upper Great Highway.

The sliplining method would involve inserting about 11,300 linear feet of PVC pipe into the larger existing pipeline. Workers installing the PVC pipe would access the work area using existing access hatches for the Westside Transport Box located along the Great Highway.

Customer Retrofits

Implementation of the project could also require the retrofit of irrigation systems to bring the systems into compliance with California Department of Public Health Services Title 22 and Title 17 requirements, which regulate the production and use of recycled water. Retrofit work could include the installation of limited sections of pipeline, the installation of backflow preventors, and the replacement of noncompliant irrigation system components. The need for these upgrades is currently being investigated by the SFPUC and will be analyzed in the Draft EIR as applicable.

4.2.2 Construction Schedule

Project construction is expected to begin in November 2012 and end in April 2015. Construction hours would vary depending on the construction locations. More specific information regarding work hours will be presented in the EIR.

4.2.3 Operations and Maintenance

The systems used to supply water for irrigation and commercial uses would operate year-round, with peak production occurring during the dry months, usually April through October. When demand is low, portions of the treatment facilities could be placed in standby mode or operate at reduced output. Storage reservoirs in the distribution system would be used to balance daily demands.

The primary pump station at the proposed recycled water treatment facility would operate as needed to meet demand and to fill reservoirs in the distribution system. The booster pumps in the system would operate on an as-needed basis to maintain pressure in the system. The reservoirs and pipes would be flushed periodically to maintain water quality. The flushed water would be sent to the combined sewer system and re-treated at the Oceanside WPCP. Blowoff valves would be placed at low points and dead ends of the distribution system to ease flushing of the pipelines.

Water Quality Objectives

The irrigation demands identified in Section 1.1 are currently being met through the use of groundwater pumped from local wells in Golden Gate Park, and through the use of potable water for Lincoln Park, the Presidio, and the Panhandle portion of Golden Gate Park. The SFPUC determined that chloride and sodium concentrations are the key parameters of concern for these customers; therefore, water quality objectives were established for the project to minimize chloride and sodium concentrations (RMC, 2009). (Note that some areas within Golden Gate Park are landscaped with salt-sensitive plant species that require potable water. Therefore, these areas would continue to be irrigated with potable water and may be excluded from the proposed project.)

5.0 Permits and Approvals Required

The SFPUC could be required to obtain the following permits and approvals for project construction and operation.

5.1 Federal

The Presidio Trust would approve the portion of the project serving the Presidio Golf Course and would complete appropriate NEPA documentation for the portion of the project within the Presidio.

5.2 State

- State Water Resources Control Board Stormwater General Construction Permit and Stormwater Pollution Prevention Plan, if more than 1 acre of land is disturbed³
- San Francisco Regional Water Quality Control Board, Waste Discharge Requirements for use of recycled water (the project may be covered under Order 96-011, General Water Reuse Requirements for Municipal Wastewater and Water Agencies, or may require separate waste discharge requirements)

³ Applicable to areas that do not drain to the City's combined sewer system.

5.3 Local

- San Francisco Planning Commission certification of the Final EIR, issuance of Coastal Development Permit, and determination of consistency with the general plan
- SFPUC approval of CEQA findings, agreement with Recreation and Parks Department for construction of facilities in and use of Golden Gate Park for recycled water facility, agreement with Presidio Trust of San Francisco for construction of facilities and delivery of recycled water to Presidio Golf Course, construction contracts and other project implementation actions
- San Francisco Board of Supervisors consideration of any appeals of the Planning Commission's certification of the Final EIR, appropriation of project funding, approval of new structure in Golden Gate Park [Note: Charter Section 4.113 requires a two-thirds vote of the Board of Supervisors for construction of any new structures in the park.]
- San Francisco Recreation and Parks Department approval of use of park property for recycled water treatment facility and recommendation to the Board of Supervisors on construction of new structures in Golden Gate Park
- San Francisco Arts Commission approval of exterior design of structures on City property

6.0 Environmental Analysis

6.1 Environmental Issues to Be Addressed in the EIR

The EIR will address all environmental issue areas required under CEQA. The EIR will discuss potential impacts due to construction and operation activities and will propose mitigation measures for impacts considered to be potentially significant.

6.1.1 Land Use

Construction and operation of the proposed project could affect adjacent land uses. The majority of pipeline construction would occur in residential areas, whereas the recycled water treatment plant is adjacent to public use areas within Golden Gate Park. The EIR will provide an overview of the potential land use impacts associated with implementation of the project. Potential effects to be evaluated include:

- Conflicts (if any) with established local, regional, state, or federal plans, policies, and/or guidelines
- Disruption of an established community
- Inconsistency or incompatibility with existing or planned land uses
- Short-term disruption of neighboring land uses during construction
- Operations effects on adjacent land uses, such as Golden Gate Park and Presidio Golf Course uses

6.1.2 Aesthetics

Effects on aesthetics in the project area associated with construction and implementation of the project could result from construction activities that would remove vegetation or otherwise alter the existing landscape, or from the introduction of additional built features within scenic areas. Potential effects to be evaluated include:

- Degradation or obstruction of scenic views and designated scenic resources due to construction of the recycled water treatment facility
- Light and glare effects associated with the recycled water treatment facility lighting

6.1.3 Population and Housing

Construction and operation of the proposed project could affect adjacent population and housing. Potential effects to be evaluated include:

- Inducement of direct or indirect substantial population growth
- Displacement of substantial numbers of existing housing or people

6.1.4 Cultural and Paleontological Resources

Construction (mainly excavation) of the project facilities could affect historical, cultural, or paleontological resources. Potential effects to be evaluated include:

- Effects on archaeological and paleontological resources
- Effects on nearby historic/architectural resources, including the Golden Gate Park National Register Historic District and the Presidio National Historic Landmark District

6.1.5 Transportation and Circulation

Construction of the proposed project could have temporary effects on transportation and circulation resulting from construction activities. Potential effects to be evaluated include:

- Effects on the regional and local transportation network
- Effects of adding vehicle trips (from construction machinery and workers) and contributing to increased traffic congestion during construction and/or operation of proposed facilities
- Effects on traffic safety in the vicinity of the construction site
- Effects on emergency access in the vicinity of the construction site

6.1.6 Noise

Noise effects from implementation of the project would be associated with facility and pipeline construction activities and, as such, would be temporary and short term. Potential effects to be evaluated include:

- Effects of construction noise and vibration on sensitive receptors in the vicinity of the construction activities, as well as on historic buildings and architecture

- Effects of operation and maintenance activities on noise levels in the area adjacent to construction

6.1.7 Air Quality

Effects on air quality resulting from the proposed project would largely be associated with construction activities and, as such, would be temporary and short term. However, operation of the proposed recycled water treatment facility could result in long-term air quality impacts. Potential effects to be evaluated include:

- Effects of construction emissions, including dust generation
- Consistency with regional air quality plans

6.1.8 Greenhouse Gas Emissions

Effects related to greenhouse gas emissions from the proposed project would be both temporary and short term (associated with construction activities) and long-term (associated with operation of the recycled water treatment plant and pump station). Potential effects to be evaluated include:

- Generation of greenhouse gas emissions that have a significant impact on the environment
- Consistency with plans and policies regarding the reduction of greenhouse gases

6.1.9 Wind and Shadow

Construction of aboveground project facilities could result in wind and shadow effects. Potential effects to be evaluated include:

- Alteration of wind in a manner that substantially affects public areas
- Creation of new shadow in a manner that substantially affects outdoor recreation facilities or other public areas

6.1.10 Recreation

Construction could temporarily disrupt recreational uses in Golden Gate Park (including the Panhandle), Lincoln Park, Presidio Golf Course, and the pedestrian path adjacent to the Great Highway as a result of noise, dust, and/or temporary access restrictions. The EIR will evaluate the effects of the project on such recreational resources, including the effects of recycled water use at recreational sites. Potential effects to be evaluated include:

- Effects on recreational facilities within and adjacent to the proposed facilities and recycled water customer sites
- Effects on access to recreational areas during construction

6.1.11 Utilities and Service Systems

Construction could result in temporary effects on utilities and service systems. Potential effects to be evaluated include:

- Consistency with wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Effects associated with construction of new service systems
- Effects on storm water drainage facilities
- Effects of water supplies
- Effects on wastewater treatment capacity
- Effects on landfill capacity
- Consistency with federal, state, and local statutes and regulations related to solid waste

6.1.12 Public Services

Construction and implementation of the proposed project could temporarily affect public services. Potential effects to be evaluated include:

- Substantial adverse physical impacts associated with provision of, or need for, new or physically altered government facility (fire or police station, school, and/or park)

6.1.13 Biological Resources

The proposed project could affect terrestrial habitats and wildlife as a result of proximity to construction activities, including noise, vibration, dust, and erosion effects, as well as the removal of trees associated with the construction of facilities in Golden Gate Park, at the recycled water treatment facility site, and in the Presidio. Potential effects to be evaluated include:

- Physical changes to habitat or habitat quality for plants and wildlife
- Effects on special-status species
- Effects on species populations and the ability to maintain self-sustaining levels
- Interference with wildlife species movement corridors or migration
- Conflicts with tree preservation policies or ordinances

6.1.14 Geology and Soils

Construction of the recycled water treatment facility, reservoirs, pumps, and distribution pipelines could result in site-specific impacts on or from local geology and soils conditions. Potential effects to be evaluated include:

- Seismic hazards and/or increased exposure of people and structures to seismic hazards
- Increased exposure of people or structures to geologic hazards (such as liquefaction, poor soil conditions, or unstable slopes) from construction of the facilities in identified hazard zones
- Erosion potential from construction excavation

6.1.15 Hydrology and Water Quality

Because the recycled water treatment facility would be located near the ocean and within the San Francisco coastal zone, construction of the facility (and storage and distribution facilities) could affect coastal waters and could have other water quality impacts. In addition, the recycled water produced at the proposed recycled water treatment facility would be required to meet Title 22 standards, as required by the State Water Resources Control Board and the California Department of Health Services. Potential effects to be evaluated include:

- Changes in surface water quality or flow from construction and operations activities
- Alteration of existing drainage patterns
- Indirect effects (e.g., effects on other beneficial uses of the surface water, if applicable)

Construction and operation of the project could affect local groundwater resources in the project vicinity and potential service areas. Potential effects to be evaluated include:

- Changes in shallow groundwater levels and recharge rates
- Changes in groundwater quality, including effects from saltwater intrusion (if any)
- Indirect effects (e.g., effects on other beneficial uses of the groundwater)

6.1.16 Hazards and Hazardous Materials

Construction and operation of the proposed project could require the use of hazardous material, including fuels and oil. Additionally, project construction (mainly excavation) could expose workers to existing hazardous materials sites. Potential effects to be evaluated include:

- Creation of a significant hazard through the routine transport, use, or disposal of hazardous materials
- Creation of a significant hazard through upset or accident conditions involving the release of hazardous materials
- Emission of hazardous materials within the vicinity of a school
- Creation of a significant hazard associated with existing hazardous materials sites
- Conflicts with adopted emergency response plan or evacuation plan
- Exposure to people or structures to fires

6.1.17 Mineral/Energy Resources

Construction activities (mainly excavation) associated with the project could affect mineral resources, if present in the project area. Construction and operation of the project would require the use of energy resources. Potential effects to be evaluated include:

- Loss of the availability of a known mineral resource
- Conflicts or loss of locally-important mineral resource recovery site on a local general, specific, or land use plan
- Use of large amounts of fuel, water, or energy

6.1.18 Agriculture and Forestry Resources

While it is not likely that agricultural or forestry resources would be located within the project area given the urban nature of the City and County of San Francisco, potential effects to be evaluated include:

- Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
- Consistency with existing zoning for agricultural use, a Williamson Act contract, forest land, timberland, and/or timberland zoned Timberland Product
- Loss or conversion of forest land or agricultural land from to non-forest or non-agricultural uses

6.1.19 Other Environmental Issues

The EIR will evaluate any potential growth-inducement impacts that could result from implementation of the proposed project. The EIR will also address whether the project could result in impacts that would be significant when combined with the impacts of other SFPUC or non-SFPUC projects occurring concurrently within the same geographic area.

6.2 Alternatives

CEQA requires that an EIR evaluate a reasonable range of feasible alternatives to the project or to the project location that would attain most of the project objectives but avoid or substantially lessen any of the significant effects of the project. The EIR will identify the potentially significant impacts of the proposed project. The findings of the EIR impact analysis will guide the refinement of an appropriate range of alternatives to be evaluated in the EIR that would avoid or substantially lessen significant impacts while still meeting project objectives. Any alternatives suggested during the public scoping period will also be considered. The EIR will also discuss impacts associated with the No Project Alternative.

References

RMC Water and Environment (RMC), *Technical Memorandum, Westside Recycled Water Project Description*, June 17, 2009.

San Francisco Planning Department, *Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008.

San Francisco Public Utilities Commission (SFPUC), *Recycled Water Master Plan for the City and County of San Francisco*, 2006.

San Francisco Public Utilities Commission (SFPUC), *WSIP Westside Recycled Water Project CUW302-01, Second Addendum to Project Description TM*, July 2, 2010.

APPENDIX B

Scoping Meeting Materials

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

Proposed San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco – September 23, 2010

AGENDA

Starting promptly at 7:00 PM

Introductions – Carrie Dovzak, San Francisco Planning Department

Environmental Review Process Overview – Carrie Dovzak, San Francisco Planning Department

Project Overview – Barbara Palacios, San Francisco Public Utilities Commission

Public Comment

Closing Remarks – Carrie Dovzak, San Francisco Planning Department

Glossary	MEA: Major Environmental Analysis Division, San Francisco Planning Department
	SFPUC: San Francisco Public Utilities Commission
	CEQA: California Environmental Quality Act
	EIR: Environmental Impact Report
	WSIP: Water System Improvement Program
Documents Currently Available	The following documents are available online at http://tinyurl.com/puccases or by calling 415.575.9030: - Project Notice of Preparation - Program EIR for the SFPUC Water System Improvement Program
	For More Information Planning Department Web Site: http://mea.sfplanning.org SFPUC Web Site: www.sfwater.org For EIR: Carrie Dovzak at SF Planning, (415) 575-9030 or carrie.dovzak@sfgov.org For Project: Suzanne Gautier at SFPUC, (415) 554-3204 or sgautier@sfwater.org

San Francisco Planning Department
Major Environmental Analysis Division

SCOPING MEETING

SAN FRANCISCO WESTSIDE RECYCLED WATER
PROJECT

Environmental Impact Report

September 23, 2010

Scoping Meeting Purpose

- Hear your comments on the proposed scope and focus of environmental review of the proposed San Francisco Westside Recycled Water Project
- Help identify the following to be analyzed in depth:
 - *Range of alternatives*
 - *Environmental impacts*
 - *Methods of assessment*
 - *Mitigation measures*

Scoping Meeting Agenda

- Introductions
- Presentation
 - *Overview of Environmental Review Process*
 - *Overview of San Francisco Westside Recycled Water Project*
- Public Comments
- Closing Remarks

Scoping Meeting Reminders

- Sign in at the table near the entrance.
- If you would like to speak during tonight's hearing, fill out a speaker card.
- To make written comments, pick up comment cards.
 - *Drop off at the end of the meeting*
 - *Mail or fax later*
- The comment period will begin after the SFPUC presentation. Please wait until your name is called.

Project Team Introductions

- San Francisco Planning Department (Lead Agency under CEQA)
 - *Carrie Dovzak, CEQA Coordinator*
- San Francisco Public Utilities Commission (Project Sponsor)
 - *Barbara Palacios, Project Manager*
 - *Robin Cort, Environmental Project Manager*
 - *Garrett Low, Project Engineer*
 - *Suzanne Gautier, SFPUC Communications*

ENVIRONMENTAL REVIEW PROCESS

California Environmental Quality Act

Proposed projects require environmental review under the California Environmental Quality Act (CEQA) before they can be considered for approval

For SFPUC projects, CEQA is implemented by the San Francisco Planning Department

CEQA Objectives

- Present environmental impacts of proposed projects
- Identify ways to avoid or reduce environmental impacts
- Support the agency decision-making process
- Encourage public participation
- Enhance interagency coordination

What will the EIR include?

- Provide a detailed description of the project; its location, and status of the existing environment
- Description of Project Construction
- Identify potential environmental impacts
- Identify ways to avoid or reduce significant environmental effects through mitigation or alternatives to the proposed project

Environmental Impacts

Biological Resources
Noise
Traffic
Recreation
Aesthetics/Visual
Cultural Resources and Paleontological Resources
Air Quality
Hydrology and Water Quality
Land Use
Population and Housing
Greenhouse Gases
Wind and Shadow
Utilities and Service systems
Public Services
Geology and Soils
Hazards and Hazardous Materials
Agriculture and Forestry Resources
Mineral/Energy resources

Proposed San Francisco Westside Recycled Water Project

SF Public Utilities Commission

- Provides water to 2.5 million people
 - *800,000 SF residents and 1.7 million in Bay Area*
- Operates combined sewer system in SF
- Generates hydroelectric power

Regional and Local Water Sources

- Provide an average of 265 mgd
 - Hetch Hetchy Reservoir (85%)
 - Local Bay Area Reservoirs (15%)
- Limited use of groundwater in City for irrigation

The Water System



Water System Improvement Program (WSIP)

- Implementing a \$4.6 Billion Capital Improvement Program
- WSIP Environmental Study (PEIR) certified October 2008
- Develop 10 million gallons per day (mgd) new water supply by 2018
- Need to assess and evaluate water supply options for normal and dry years

Need to Diversify Our Water Supply Because of...

- Climate Change
- Drought
- Natural Disaster

Water Supply Diversification

- WSIP PEIR commits to develop 10 MGD of alternative water supplies in San Francisco by 2018
- Proposed water supply programs
 - Conservation
 - Groundwater
 - Recycled Water
- Recycled water program under WSIP
 - Westside Recycled Water Project
 - Harding Park Recycled Water Project
 - Eastside Recycled Water Project (New)

Westside Recycled Water Project Summary

- Produce and deliver up to 2 mgd (average) for irrigation and other non-potable uses
- New recycled water facility (in Golden Gate Park) will include:
 - Treatment: membrane filtration, reverse osmosis, UV disinfection
 - Storage reservoirs
 - Distribution pumping
- New distribution pipelines to Lincoln Park and Presidio.

Proposed Customers

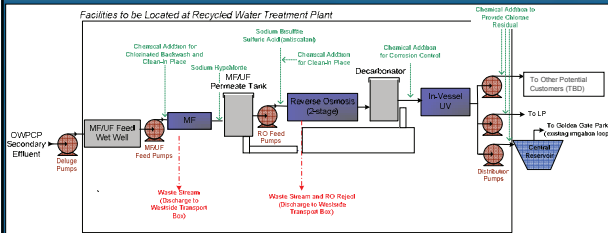
- Recycled water will be used for irrigation of:
 - Golden Gate Park
 - Lincoln Park Golf Course
 - Presidio Golf Course.
- Will also be used for toilet/urinal flushing and irrigation at the California Academy of Sciences.



Recycled Water Demands & Facility Sizing

Demand	Average Day Demand (mgd)	Peak Day Demand (mgd)
GGP Irrigation	0.94	2.41
GGP Lakes	0.4	0.4
Lincoln Park Golf Course	0.14	0.37
Presidio Golf Course	0.12	0.4
Subtotal	1.6	3.6
<i>Capacity for Future Demands</i>	<i>0.4</i>	<i>0.9</i>
Total Demand (basis of treatment, storage design)	2.0	4.5

Recycled Water Treatment Process



- Treatment includes: micro/ultrafiltration, reverse osmosis, and disinfection with ultraviolet light.
 - *Advanced tertiary recycled water*
- Water quality objective is to match the current groundwater quality.

Facility Location



Proposed Recycled Water Treatment Facility

- Site of former Richmond-Sunset Water Pollution Control Plant (WPCP)

Facility Location - Existing Site



Facility Location - Proposed Building



Treatment Facility



- New structures will be significantly buried

Treatment Facility - Preliminary Rendering



Treatment Facility - Perspectives



Distribution System

- Pumping Systems
 - Replacement/upgrade of pumps at the Oceanside WPCP
 - New pump station inside proposed recycled water facility
 - Upgrade of existing booster pumps in GGP Panhandle
 - Use of existing pumping at GGP Central Reservoir and Lincoln Park Golf Course

Distribution System (cont'd)

- Pipelines

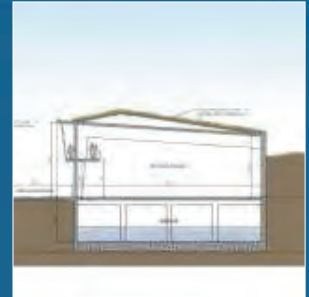
- Use of existing pipeline in Westside Transport Box
- New pipelines (approx 5 miles) to Lincoln Park, the Presidio and the Panhandle
- Use of existing irrigation pipeline in GGP



Distribution System (cont'd)

- Storage

- New on-site recycled water storage beneath treatment building
- Use of existing GGP Central Reservoir
- New storage tank in Presidio Golf Course



Environmental Review Schedule

- Notice of Preparation – September 8, 2010
- Public Scoping Meeting – September 23, 2010 (tonight)
- Scoping Period Ends – October 13, 2010
- Public Review of Draft EIR – Fall 2011
- Certification of Final EIR – Fall 2012

PUBLIC COMMENT

Comment Session Ground Rules

- Submit speaker cards to speak
- Wait until your name is called
- Speak into the microphone and state your name CLEARLY
- Summarize comments (3 minute limit)
- Use comment forms for more extensive input

Public Comment Period

CLOSING REMARKS

Where to Send Comments

Scoping comments accepted through October 13, 2010

Send by email to: carrie.dovzak@sfgov.org

Send by fax to: (415) 558-6409

Send by U.S. mail to:

*San Francisco Planning Dept.
Attn: Bill Wycko, ERO
SF Westside Recycled Water Project
1650 Mission Street, Suite 400
San Francisco, CA 94103*

For More Information

About the Environmental Review Process:

*Carrie Dovzak, San Francisco Planning Department,
Major Environmental Analysis Division
(415) 575-9030, carrie.dovzak@sfgov.org*

*The Notice of Preparation is available online at
<http://tinyurl.com/puccases>*

About the San Francisco Westside Recycled
Water Project:

*Suzanne Gautier, SFPUC Communications
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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

CONTACT INFORMATION

Name:

Affiliation:

Street Address:

City, State, Zip:

Phone:

Email:



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

CONTACT INFORMATION

Name:

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Phone:

Email:



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – September 23, 2010

SIGN-IN SHEET

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – September 23, 2010

SIGN-IN SHEET

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – September 23, 2010

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – September 23, 2010

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – September 23, 2010

SIGN-IN SHEET

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

CONTACT INFORMATION

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

CONTACT INFORMATION

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Affiliation: Human Being

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City, State, Zip: 1372 LA Playa 94122

Phone: _____

Email: _____



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

CONTACT INFORMATION

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Location: Golden Gate Park Senior Center Date: September 23, 2010

SPEAKER CARD

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

September 23, 2010

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

Name (please print): ROBERT VAN RAVENSWAAR
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COMMENTS

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SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

September 23, 2010

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

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COMMENTS

APPENDIX C

Scoping Meeting Transcripts

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SAN FRANCISCO PLANNING DEPARTMENT
MAJOR ENVIRONMENTAL ANALYSIS DIVISION
SCOPING MEETING
SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT
ENVIRONMENTAL IMPACT REPORT

Thursday, September 23, 2010

Golden Gate Senior Center
6101 Fulton Street
San Francisco, California

REPORTED BY: DEBORAH FUQUA, CSR #12948

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APPEARANCES

CARRIE DOVZAK, EIR Coordinator for the Westside
Recycled Water Project
BARBARA PALACIOS, Project Manager
ROBIN CORT, Environmental Project Manager
SUZANNE GAUTIER, Communications, San Francisco Public
Utilities

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1 Thursday, September 23, 2010 7:04 o'clock p.m.

2 ---o0o---

3 P R O C E E D I N G S

4 CARRIE DOVZAK: Good evening, ladies and
5 gentlemen. I'd like to get started, so if the people
6 in the back, if you could find your seats.

7 Ladies and gentlemen, my name is Carrie
8 Dovzak, and I'm the EIR coordinator for San Francisco
9 Westside Recycled Water Project. I'd like to welcome
10 you all here this evening. This is actually the third
11 time I've given this presentation, although the first
12 time I gave two years ago in 2008. The PUC has decided
13 to rerelease the NOP as a Revised NOP. And that's the
14 copy that most of you received in the mail or through
15 your organizations.

16 DAVID PILPEL: Can you say what those kind of
17 abbreviations are, "NOP"?

18 CARRIE DOVZAK: "NOP" means "Notice of
19 Preparation." And many of you received this in the
20 mail.

21 The purpose of the scoping meeting tonight is
22 to hear your comments on the proposed scope and focus
23 of the environmental review of the proposed project.
24 Your comments will help identify the following to be
25 analyzed and the depth of the EIR, which means

1 "Environmental Impact Report": the range of
2 alternatives; the environmental impacts; methods of
3 assessment; and mitigation measures.

4 This is the agenda for tonight's meeting.
5 I'll do very brief introductions. I'll give a very
6 short overview on the environmental review process, and
7 then I'll ask the project manager from the PUC to give
8 her overview of the project. And then we'll go into
9 public comments.

10 These are the reminders for the scoping
11 meeting. I hope that you all signed in when you walked
12 in. If you would like to speak tonight, we have
13 speaker cards. And this is what they look like.

14 We have a court reporter this evening. So
15 during the comment period, I'm going to ask everyone to
16 speak slowly and clearly. She's giving me the eye now.
17 She's telling me to speak more slowly and more clearly.

18 If you don't want to speak this evening but
19 want to make written comments, we also have comment
20 cards. And you can get those in the back on the table.
21 And you could either hand them in this evening, or you
22 could send them in to City Planning. And they have the
23 address written on the cards. Or you could just write
24 your own letter in send it in. That's fine too.

25 The comment period will begin after the PUC

1 presentation. And at that time, I will get all the
2 speakers cards, and I will call you to come speak by
3 name.

4 So team introductions, like said, my name is
5 Carrie Dovzak. I'm the EIR coordinator. I work in the
6 major environmental analysis division of City Planning.
7 We are the lead agency for this project, and the PUC is
8 the project sponsor.

9 Tonight, we have the project manager Barbara
10 Palacios here. We also have the environmental project
11 manager, Robin Cort. Garrett Low, the project
12 engineer -- is he here? No? I'm sorry. And Suzanne
13 Gautier, who's our communications person back there in
14 the blue. She's coming up. And I know that some of
15 you might have attended the information meeting that
16 the PUC had here a couple of weeks ago.

17 Okay. Let me start the environmental review
18 process.

19 UNIDENTIFIED SPEAKER: Could the other City staff
20 identify themselves, who are here?

21 CARRIE DOVZAK: If you could raise your hand if
22 you are PUC.

23 UNIDENTIFIED SPEAKER: Thank you.

24 CARRIE DOVZAK: So the proposed projects require
25 environmental review under California Environmental

1 Quality Act, or CEQA, before they can be considered for
2 approval. For PUC projects or other projects within
3 the city of San Francisco, City Planning is the lead
4 agency.

5 So CEQA objectives are to present the
6 environmental impacts of the proposed project; identify
7 ways to avoid or reduce environmental impacts; support
8 the agency decision-making process; encourage public
9 participation -- as you all are doing this evening; and
10 enhancing interagency coordination.

11 And I'd like to say just one word about the
12 agency decision-making process. When we send out the
13 NOP to all of you, we also send it out to all of the
14 state agencies who have an interest in this project --
15 California Department of Fish and Game, the Regional
16 Water Board, agencies like that. So they all get this
17 information at the same time.

18 So the purpose of the EIR is to provide a
19 detailed description of the project, its location and
20 status of the existing environment, a good description
21 of the project construction and then, most importantly,
22 to identify potential environmental impacts and the
23 ways to reduce or avoid these impacts through
24 mitigation or alternatives to the proposed project.

25 Now, these are some of the sections that are

1 required in the EIR. I just thought I'd throw them up
2 there for you to take a look. I'm not going to go
3 through each one. But these are some of the impacts
4 that we are going to evaluate in the EIR. Okay?

5 With that, I'd like to turn over the
6 presentation about the project to Barbara Palacios, who
7 is the project manager.

8 BARBARA PALACIOS: Good evening. As Carrie
9 mentioned, I am Barbara Palacios, and I am the SFPUC
10 project manager for the San Francisco Westside Recycled
11 Water Project. Tonight, I'll be providing an overview
12 of the proposed project and its major components.

13 The San Francisco Public Utilities Commission
14 is a public utility that provides drinking water to 2.5
15 million customers in Alameda, Santa Clara, San Mateo,
16 and San Francisco counties. We supply drinking water
17 to 267 wholesale customers, such as cities and other
18 water utilities throughout the Bay Area with about two
19 thirds of our total water supply serving those agencies
20 and the remaining one third serving retail customers,
21 including the City of San Francisco.

22 The SFPUC operates the Hetch Hetchy Regional
23 Water System, which was built more than 140 years ago.
24 It is a complex network of pipelines, tunnels,
25 reservoirs and water treatment plants that supply water

1 to the Bay Area.

2 In November 2002, the SFPUC embarked on a
3 multi-year \$4.6 billion capital improvement program
4 referred to as the Water System Improvement Program, or
5 WSIP, to repair and upgrade this complex water delivery
6 system. The WSIP includes 86 projects, 40 of which are
7 in the city, that will help the SFPUC meet water
8 quality requirements, improve the system's ability to
9 deliver water after earthquakes, and help meet current
10 and future water supply goals.

11 As part of this program, the PUC is required
12 to develop 10 million gallons per day of alternative
13 water supplies by the year 2018. To meet this goal,
14 the SFPUC must diversify its local water sources
15 through the implementation of new water supply programs
16 which include conservation, development of potable
17 groundwater supplies, and the development of recycled
18 water for nonpotable uses such as irrigation.

19 One of the WSIP projects proposed to help meet
20 these water supply requirements is the San Francisco
21 Westside Recycled Water Project.

22 The proposed project would contribute towards
23 SFPUC's water supply goals. Specifically, the project
24 would diversify our water supplies to help meet local
25 water demands. Recycled water would be a new, locally

1 produced water supply that is both reliable and drought
2 resistant. And the project would allow us to reduce
3 the use of drinking water for irrigation by serving
4 those demands with recycled water.

5 As some of you may recall, the City issued a
6 Notice Of Preparation and conducted scoping in June
7 2008 for the Westside Recycled Water Project. Since
8 then, the project description has changed
9 significantly. And I will present the new scope
10 elements later in the presentation.

11 This figure provides a schematic overview of
12 the project description that was included in the June
13 2008 notice of preparation. Some of the major scope
14 elements from the June 2008 description included a
15 recycled water treatment plant located at the Oceanside
16 Wastewater Plant. The proposed level of treatment at
17 that time was membrane filtration and ultra violet
18 light disinfection only.

19 The previous customer base included several
20 small parks, such as Stern Grove and some surrounding
21 parks, the zoo, in addition to Golden Gate Park and
22 Lincoln Park Golf Course. The distribution pipeline
23 system was also fairly extensive and proposed a
24 pipeline up Sunset Boulevard.

25 Planning work conducted between 2008 and now

1 has led us to the current project description. The
2 proposed project would produce and deliver up to
3 2 million gallons per day of recycled water for
4 irrigation and other nonpotable uses.

5 The facility would be located in Golden Gate
6 Park, which is the project's primary recycled water
7 customer. The proposed facility would include
8 treatment, recycled water storage, and distribution
9 pumping.

10 The project would also include new pipelines
11 to serve secondary customers such as Lincoln Park and
12 Presidio golf courses, as well as to extend the
13 irrigation system to the Golden Gate Park Panhandle.
14 Recycled water, again, would be used primarily for the
15 irrigation of Golden Gate Park and the filling of the
16 ornamental lakes in the park. And additional customers
17 include the Lincoln Park and Presidio golf courses.
18 Recycled water would also be used for toilet flushing
19 and urinal flushing as well as irrigation at the
20 California Academy of Sciences.

21 This table summarizes the recycled water
22 demands to be served by the project. Irrigation and
23 lake augmentation in Golden Gate Park are by far the
24 largest demands and represent about 84 percent of the
25 total recycled water demand. The facility would also

1 include limited spare capacity to produce recycled
2 water to serve other smaller parks on the west side of
3 the city in the future if deemed feasible.

4 One of the biggest changes in the project
5 since 2008 was the addition of reverse osmosis to the
6 treatment regime. Under current project, secondary
7 effluent, which has already undergone substantial
8 treatment at the Oceanside plant, would come from
9 Oceanside to the new facility through an existing
10 pipeline located along the Great Highway in an
11 underground structure known as the Westside Transport
12 Box.

13 At the new treatment facility, this effluent
14 will be further treated with membrane filtration, which
15 removes particulates; reverse osmosis, which removes
16 dissolved compounds such as salt; and finally be
17 convected with ultraviolet light. The proposed
18 facility would produce advanced tertiary recycled
19 water, which is a very high quality water low in salt
20 and appropriate for salt-sensitive plant species such
21 as those found in Golden Gate Park.

22 The facility is proposed to be located at the
23 west end of Golden Gate Park, at the Rec and Park
24 construction spoils staging area, also known as the
25 site of the former Richmond-Sunset Water Pollution

1 Control Plant.

2 Other sites were considered as part of the
3 2006 recycled water master plan as well as subsequent
4 planning studies. These sites included the Fleishacker
5 Bath House, the Harding Road Lake Merced Boat House
6 site, and the Oceanside plant.

7 These images show street level view of the
8 current site. The first image as viewed from Martin
9 Luther King Drive shows that the sight is fairly hidden
10 behind a screen of trees.

11 The second image shows the view of the site
12 from the inside. The site is currently used by the
13 Recreation and Parks Department for construction spoils
14 staging, storage, and other maintenance activities.
15 This image also shows the existing groundwater well
16 station which currently provides irrigation water to
17 the park.

18 These two images show the placement of the
19 facility on the site. The recycled water facility
20 consists of two semi-circular structures shown in
21 purple on this aerial photo and represented here on
22 this landscape rendering. The existing groundwater
23 well is located at the center of this site.

24 Once constructed, the recycled water facility
25 would occupy approximately 25 percent of the total site

1 area. Proposed landscaped areas immediately adjacent
2 to the facility would be accessible to the public. The
3 remaining site acreage would be available for
4 development of future recreational opportunities which
5 could include a meadow or similar open space.

6 The proposed recycled water structures would
7 be significantly buried. This preliminary
8 cross-section view shows that the primary building
9 would be buried into the existing hillside with only
10 eight to ten feet of the building exposed on the
11 eastern side of the building.

12 On the western side of the secondary
13 structure, the landscape berm would be built up so that
14 only eight to ten feet of that structure would be
15 exposed. In addition, recycled water storage
16 reservoirs would be completely buried underneath the
17 treatment building.

18 The front edge of the main treatment building
19 would be approximately 30 feet tall when viewed from
20 the interior driveway. However, this area would not be
21 accessible to the public.

22 This aerial perspective rendering shows the
23 two recycled water treatment structures, the existing
24 groundwater well station, which would be refurbished as
25 part of the local groundwater supply project, and the

1 proposed visitor center, which would house educational
2 exhibits related to water supplies.

3 The recycled water facility proposed a
4 two-structure design that would provide an interior
5 driveway or courtyard that would hide the day-to-day
6 operational activities of the facility from public
7 view. All of the treatment equipment, including the
8 distribution pumps, would be housed within the main
9 building. Again, the recycled water reservoirs would
10 be located underneath the building.

11 This image also shows the use of land forms in
12 front of the smaller building so that only eight to ten
13 feet of that structure would be visible. This image
14 also shows the use -- the proposed use of green roofs
15 on both buildings to help their integration into the
16 area.

17 These images show renderings of the different
18 perspectives of the proposed facility. The top image
19 shows the facility as viewed from the walking trail
20 through the wooded area, if you were walking along the
21 trail in this area on the east side of the building.
22 And this shows there are approximately eight to ten
23 feet of the exposed wall that would be visible along
24 with the view of the green roof.

25 The second image shows the building as would

1 be seen from Martin Luther King Drive.

2 The distribution system components for the
3 proposed project would include pump stations,
4 pipelines, and storage reservoirs and tanks. In terms
5 of pumping facilities, the project would upgrade
6 existing pumps at the Oceanside plant to convey
7 secondary effluent to the site.

8 The new facility in Golden Gate Park would
9 include pump systems to serve Golden Gate Park, Lincoln
10 Park, and the Presidio. And again, all of these
11 facilities would be located inside of the building. We
12 would also make use of existing booster pumps in the
13 Golden Gate Park panhandle but would upgrade existing
14 equipment. Existing pumping systems at the Golden Gat
15 Park Central Reservoir and the Lincoln Park Golf Course
16 would also be converted to recycled water use.

17 In terms of pipelines, the project would use
18 the existing pipelines located underneath the Great
19 Highway to convey secondary effluent from the Oceanside
20 plant project would construct new pipelines
21 approximately five miles total to deliver recycled
22 water to Lincoln Park and to the Presidio Golf Course,
23 as well as to extend the irrigation pipeline to the
24 panhandle. The project would also make use of the
25 existing irrigation pipelines in the park to serve the

1 park's irrigation and lake-fill needs. The project
2 would include construction of new storage underneath
3 the treatment building, and there would also be a new
4 storage tank in the Presidio Golf Course.

5 The project team has anticipated to complete
6 the environmental review and permitting by fall of
7 2012. Construction is anticipated to start in early
8 2013 and continue through early 2015. And the proposed
9 work hours for construction are Monday through Friday
10 from 7:00 a.m. to 5:00 p.m.

11 For all construction projects in the city,
12 there is standard notification that's issued to
13 impacted residents. A notice is issued 30 days prior
14 to the start of construction, and additional notice is
15 provided 72 hours in advance of construction
16 activities.

17 Thank you for the opportunity, and I'll turn
18 this back to Carrie.

19 CARRIE DOVZAK: Thank you very much, Barbara.

20 The environmental review schedule for the
21 project, the Notice Of Preparation, which I showed you
22 before, which some of you have gotten in the mail, was
23 sent out September 8th. And the public scoping meeting
24 is this evening.

25 The scoping period ends October 13th, and we

1 anticipate the public review of the Draft EIR a year
2 from now, approximately, in fall 2011. Certification
3 of the Final EIR will be in fall 2012.

4 Okay. And with that, I'd like to open the
5 public comment period.

6 CHERI KOLIN: So if you have any of the comment
7 sheets and you'd like to make a comment, if you would
8 please fill them out and hand them to us.

9 UNIDENTIFIED SPEAKER: Are you going to have any
10 questions answered or just public comments?

11 CARRIE DOVZAK: Yes, that's -- the CEQA scoping
12 meetings are comment periods only and not a
13 question-and-answer period.

14 The PUC had an information meeting about two
15 weeks ago, and if you speak to Suzanne Gautier, our
16 communications person, she can let you know of future
17 meetings that will come up for the PUC information
18 meetings.

19 I'm just going go over some of the ground
20 rules for the comment period. So first of all, please
21 submit your speaker cards to our consultants. Please
22 wait until your name is called, and you can come up
23 here. Speak into the microphone, and state your name
24 clearly. Summarize your comments, and please keep your
25 comments focused towards what will be included in the

1 EIR.

2 We don't have that many comment cards.
3 Usually we require you to stick to about three minutes,
4 but we'll see how it goes as people speak. So if you
5 need to speak for a long time, we don't have that time
6 this evening, so please use the comment forms for more
7 detailed input. And those can be sent to City Planning
8 or handed in after the meeting.

9 So the first speaker will be Jose Quinteiro.

10 JOSE QUINTEIRO: I was led to believe that I would
11 not be the first speaker.

12 My name is Jose Quinteiro, and I live on 48th
13 Avenue. I'm not here representing anyone. I'm just a
14 neighbor. I didn't get any of these documents.

15 So what they didn't show you on that map is
16 there's a playground about 300 feet away from where
17 you're going to put this stuff, this wastewater
18 facility.

19 First of all -- I'm not going to mince words.
20 The water that they're going to pump is two and a half
21 miles from the Westside facility, does not meet Title
22 22 qualifications, and therefore, by definition, it's
23 contaminated. So they're going to pump contaminated
24 water two and a half miles up Ocean Beach through the
25 park about 300 feet away from this playground. I took

1 my kids as toddlers to the playground. You can go
2 there on any weekend. You'll see, there's all kinds of
3 families with kids there.

4 Now that my kids are older, they go there by
5 themselves; they ride their bikes. I ride my bike home
6 down JFK Drive. And when I get to that intersection
7 there where JFK turns right, what I see is trees. What
8 am I going to see after this is built, especially if
9 they also build these giant soccer fields that they
10 want to build there? So I can just picture biking home
11 one evening, being choked with traffic, and then on my
12 left will be this giant, hulking structure.

13 One thing I noticed is they don't have any
14 lights on this elevation. I suspect that this facility
15 is probably going to run 24/7, 365 because they always
16 do. And that means it's going to have some pretty big
17 lights on it. There's going to be trucks coming and
18 going and machinery. And that just -- to me, that's
19 not a park. I know people have different visions or
20 what a park is and what open space should be like.
21 That, to me, is not a park. That's not a place where I
22 want to send my kids to the playground.

23 And I don't know how I am on time, but that's
24 all I've got to say. Thank you.

25 CARRIE DOVZAK: Thank you very much.

1 DAVID PILPEL: Good evening, David Pilpel,
2 speaking as an individual.

3 Just two housekeeping -- sorry. It's
4 P-I-L-P-E-L.

5 Just two housekeeping questions that I think
6 staff can answer. The slide presentation that you made
7 tonight, can that be made available on the Web or as
8 handouts?

9 CARRIE DOVZAK: Yes.

10 DAVID PILPEL: The project file at MEA is
11 available for public review any time?

12 CARRIE DOVZAK: I'll touch on that a little
13 afterwards.

14 DAVID PILPEL: That would be great.

15 So in terms of comments for scoping, I think
16 project description, purpose, and need need to be
17 clearly and carefully explained. You went through some
18 of that, but I think more detail is needed in the EIR.

19 With respect to the treatment facility, the
20 size, location, treatment process and site alternatives
21 need careful study. In particular, the site
22 alternatives that were considered as part of the 2006
23 study and earlier in the 2008 process I think should be
24 reexamined. The Oceanside site I don't think should be
25 discarded. And I'm -- I'd like to hear more about site

1 alternatives rather than just going with the Golden
2 Gate Park site.

3 With respect to the distribution system, the
4 end uses, the table that totaled 4.5 MGD I think needs
5 a little more explanation, if they're just those park
6 uses or if they're more finely distributed uses, what
7 those are, what the water quality requirements are for
8 those particular uses -- which may vary -- and the
9 routing and construction methods for the pipes to
10 distribute the water.

11 The impact on parks and open space is critical
12 in this project. The Rec Park uses at the proposed
13 site would presumably be displaced elsewhere. Where
14 would those be displaced to? That's a question.

15 The mitigation measures, presumably there will
16 be mitigation measures for this project if it goes
17 forward. What shape are they likely to take? And the
18 mitigation monitoring -- the MMRP, who would be
19 responsible for those mitigation measures and the
20 monitoring? Often projects have mitigation measures
21 imposed, but the follow-up by the various city agencies
22 is not always clear to the public, in fact, rather
23 unclear to the public.

24 The cumulative impacts of related land use,
25 water, park recreation, open space and transportation

1 projects in and near the park and on the Westside
2 should be analyzed as part of this project as the
3 impacts relate.

4 The water supply agreement, the 10 MGD offset
5 by the year 2018 should be explained if not in this EIR
6 in some companion document because some of us
7 understand that, and most of us don't. And that's
8 pretty important as a driver to this entire project.

9 The golf courses and the other customers, will
10 they be charged the same rate for water as the rest of
11 us, or will they bear some of the cost of this project?
12 Is there any differential cost that -- presumably this
13 recycled water is going to cost more to produce and
14 deliver than water that we receive now for potable
15 uses.

16 And finally, what additional approvals will be
17 needed besides the Planning Commission, the PUC, the
18 Rec Park Commission, and the Board of Supervisors? Are
19 there other approvals that are significant to this
20 process that I'm missing? It would be helpful to know
21 those things.

22 Thank you very much.

23 CARRIE DOVZAK: Thank you. Next I'd like to ask
24 Adam Raskin to come.

25 ADAM RASKIN: Hi, my name is Adam Raskin. I live

1 on the 1300 block of La Playa and often walk in the
2 area where the proposed plant is. Coming late into
3 being informed about this, my initial reactions to
4 raise with the Planning Commission have to do with the
5 use of chemicals odor, noise, traffic, and maintenance
6 in broad thrust to this.

7 Some other comments that I heard in the
8 initial presentation -- and I find myself sort of
9 backed up against a wall in that I am entirely in favor
10 of there being better uses of our water than we may
11 currently have, but I would advocate that we look for
12 dream solutions, otherwise we're not going to get --
13 we're not going to get them.

14 And minor items that come to my mind, for
15 example, there's discussion of using this water for
16 toilets whereas we now have water [sic] that use -- use
17 totally drinkable water in the toilets that are, say,
18 at the museums and what have you. But what about
19 waterless toilets? Many counties use them.

20 So it seems to me that providing this as a
21 rationale for the water is substandard. I found -- I
22 find the -- although, again, I'm not very well informed
23 about it, I am deeply concerned about this Westside
24 transport system. I live, again, maybe probably at the
25 most about a quarter of a mile from the project but,

1 additionally, probably about 50 yards from the Great
2 Highway. The condition, maintenance, and age of the --
3 of this previously extent water system is not clear to
4 me. I think there needs to be greater explanation of
5 that.

6 I'm very also concerned about whether or not
7 alternative energy sources could be used for energy,
8 any energy use for the entire project and whether those
9 will become first tier considerations to be used.

10 It's very -- simple thing, for any of us who
11 live in that immediate area, that there are numerous
12 projects proposed in the area. Some of them have been
13 in the process of going on for years and appear to have
14 little progress, for example, the Murphy windmill,
15 which is rather -- is much of an enigma to me,
16 considering that it is almost adjacent to the site that
17 is being proposed for this, yet there isn't a broader
18 plan.

19 So it seems to be a rather patchwork of
20 haphazard proposals that don't have a totality or are
21 not integrated into a broader vision of what we need
22 for the park, which is really to maintain the park.

23 Now, if I was a voter and somebody came to me
24 and said, "Show me," or, "Prove to me that the water
25 that is going to be used for this by, for example,

1 let's say the Presidio Golf Course, does the Presidio
2 Golf Course turn a profit?" I don't even have simple
3 answers like that.

4 It would be nice to have documentation in this
5 as to how all of the destined users of this actually
6 relate to City budgeting as an overall totality and
7 whether or not this is to satisfy certain subgroups of
8 the population.

9 And lastly, there is both the wild or -- wild
10 human environment that exists in that area that I would
11 like to see the project devote some attention to
12 addressing people who may be in that park perhaps
13 illegally but are there and how this will impact them.

14 So those are some of my concerns. Thank you
15 for your attention.

16 CARRIE DOVZAK: Thank you very much.

17 Next speaker is Hiroshi Fukuda.

18 HIROSHI FUKUDA: Hi. I have several important
19 concerns about this project. I understand that this
20 was not the first option for this recycled water
21 program; is that correct? And if so, why was Golden
22 Gate Park site selected? Because Golden Gate Park is,
23 as you know, the playground for San Franciscans. We
24 don't have very much open space, as you know.

25 And in the future, they expect the population

1 to grow by 60,000 in the next five to ten years. And
2 with this growth, we need all the open space that we
3 presently have. So this is going just the opposite of
4 our needs. You know, you're taking away valuable open
5 space that could be used. And so on that basis alone,
6 I'm really -- can't understand why the open space is
7 being used for recycled water, and I think that needs
8 to be clearly stated and justified. And I hope it's
9 not just dollars and cents. I hope there's a real good
10 reason why this has been done.

11 And also I understand that the Golden Gate
12 Park Master Plan doesn't allow for this. And so how is
13 that going to be circumvented? Why do we have a Master
14 Plan? And that has to be explained.

15 As far as the level of treatment of the water,
16 is it absolutely necessary to go to that very finite
17 level to irrigate land and flush toilets? Those are my
18 main concerns. But I do want to know the justification
19 for using such valuable space, open space, for a
20 factory or plant. Thank you.

21 CARRIE DOVZAK: Okay. Thank you very much.

22 The next speaker is Bert Lehrer.

23 BERT LEHRER: Thank you. Hi, my name is Bert
24 Lehrer. I live here in San Francisco over in West
25 Portal. I'm just here as a resident of the city.

1 As I see it, this project that's being
2 proposed is really -- it's main purpose would be to
3 free up the groundwater supply that is under Golden
4 Gate Park and is pumped out currently for irrigation of
5 the park and other purposes. Personally -- so that
6 water, then, the groundwater would be freed up and
7 could be -- would be mixed with the Hetch Hetchy water,
8 and it would be part of our drinking water. I think
9 the number is about 10 percent.

10 Basically, I don't want to be drinking
11 groundwater in any percentage. I don't think it's good
12 water. I don't think that, back in 2002, when the
13 voters in this city approved the water bonds, that they
14 believed that in the foreseeable future that they would
15 be asked to start drinking groundwater.

16 Groundwater, as far as I know, is typically
17 contaminated with what are known as endocrine
18 inhibitors [sic]. There is no national standard for
19 these chemicals in terms of what is acceptable and what
20 is not. In a lot of communities that do have
21 groundwater supply, there are actually activist groups
22 that will recommend that pregnant women not drink the
23 groundwater, even though that is their only tap water
24 supply.

25 Additionally, this groundwater is -- well, if

1 I just go on, as far as I know, not all communities are
2 drinking groundwater that are receiving Hetch Hetchy
3 water. Palo Alto, for instance, is a subscriber to the
4 system, yet they are not drinking groundwater. They
5 discontinued their groundwater system, I think, about
6 30 or 40 years ago. I really don't want to move to
7 Palo Alto. I lived there before. But the one thing
8 you can say is that they're not going to have
9 groundwater as part of their supply.

10 Part of the justification by the SFPUC on the
11 Web site for advancing groundwater for the water supply
12 is, well, 40 percent of Californians drink all or some
13 groundwater. Well, 20 percent of the people smoke
14 cigarettes. I don't think that's a justification to
15 start smoking.

16 Thanks very much.

17 CARRIE DOVZAK: The next speaker is Mary Anne
18 Miller.

19 MARY ANNE MILLER: As a former city planner in
20 this city, I'm accustomed to talking about land use.
21 And this is an industrial use in a recreational park.
22 And because it is a public entity, the PUC, that is
23 making an application to another public entity, the
24 Recreation and Park Commission -- the Recreation and
25 Park Department, it can call itself a use that's

1 permitted in what is zoned as a P district, "P" for
2 "public," "P" for you and I, for all of us to use as
3 open space.

4 This is a four-acre site, and one of the
5 brochures shows you the full four acres as it was
6 formerly used. And by the way, they don't use the word
7 "former." It's to sort of convince you that there's
8 always been this sewage treatment plant there. It
9 hasn't been used for more than 20 years, and it was
10 decommissioned in total in 1996 and demolished in that
11 year.

12 But still, we're faced in this brochure with a
13 picture of a layout of this industrial use over four
14 acres when, in fact, this new facility is only going to
15 be on one acre, the picture below.

16 But the truth of it is that all of the four
17 acres will be part of the MOU. I don't know, maybe the
18 MOU has already been signed. The MOU is the memorandum
19 of understanding that's created between two city
20 agencies when one agency is going to use the property
21 of another.

22 So if the whole four acres is part of that
23 memorandum of understanding, why don't we have planning
24 for all of that? Do we just talk about the one acre?
25 What about the rest of this site? Is that a future

1 expansion site for this industrial use? Is it just
2 grass and trees, folks?

3 Well, in the site plan that we saw on a Monday
4 night meeting this week, it was just grass and trees.
5 But I'm wanting to know, what is the giant master plan
6 here that would take up four acres? Shouldn't we be
7 asking them to do a master plan for the whole four-acre
8 site if in fact they are going use this as part of
9 their memorandum of understanding that one agency turns
10 over to another the use of this site?

11 So I want to see not just conformity with our
12 Golden Gate Park Master Plan -- that's another master
13 plan that this facility, this industrial facility, will
14 not conform to -- but I want to see a master plan for
15 the four acres. What are you planning use the rest of
16 the site for in the future?

17 Now, CEQA, the California Environmental
18 Quality Act, requires that you not just tell the public
19 about part of your project and then a few years later
20 tell them about another part or another part. You have
21 to do the whole thing. You don't do this series of,
22 you know, little add-on projects one at a time.

23 And I'm saying that we're not seeing the whole
24 project now. If it really is all grass and trees, then
25 put it in the memorandum of understanding. Don't let

1 it become a fifth soccer field and so on and so on.

2 Speaking of the soccer field, this is a huge
3 area right beside the ocean, the Great Highway, the
4 ocean. It runs really through a very historic area.
5 There are two historic windmills there. There's the
6 landmark, city landmark, the Millwright's -- the
7 millwright, the person who took care of one of those
8 windmills -- the Millwright's Cottage is also a city
9 landmark. The old railroad trace that was the Sutro
10 Railroad ran along and parallel to the ocean on the
11 Great Highway.

12 The whole thing ought to be studied. In fact,
13 we were promised back in 1990, whenever it was when
14 they started the planning for the Golden Gate Park
15 Master Plan, we were promised we would get a west end
16 of Golden Gate Park Master Plan.

17 So now, we're carving it into smaller and
18 smaller units and finding that each one of those are
19 approved sequentially. CEQA does not allow that. The
20 California Environmental Quality Act does not allow
21 that.

22 I'm pretty sure that's about it, but let me
23 just see.

24 I'd like to have as part of the description
25 the economic value of this project. This is not just

1 for yours and my emergency needs when something happens
2 and we need more water from the ground or from
3 anywhere. It's not for future desalination. It's
4 really to free up Hetch Hetchy water for sale to other
5 customers. Now, where might they be?

6 This is a growth-inducing impact. This is
7 again something that CEQA has to study -- requires,
8 that is, to be studied.

9 So as part of this EIR, there'd better be a
10 pretty thorough analysis of the growth-inducing
11 impacts. I'm sorry I'm taking so long. If you want to
12 cut me off, it's okay because I'll write a letter.

13 But let's see here. The historic
14 structures -- I think I've got it -- future expansion,
15 yeah.

16 Okay. Oh, of course the alternatives, right.
17 Spend a little time thinking about these alternatives.
18 Don't just toss us the no-project alternative and then
19 the other alternative that couldn't possibly be done
20 and it's in there as a straw dog. So really look for
21 some viable alternatives. We don't want it in Golden
22 Gate Park. Thank you.

23 CARRIE DOVZAK: Thank you very much.

24 The next speaker is Richard Fong.

25 RICHARD FONG: Good evening everyone. My name is

1 Richmond Fong. I'm on the SFRP, Recreation Park
2 Department Advisory Board. So I thought I would just
3 try to look at a few loose ends.

4 I like this project, in a way, so I don't want
5 to get attacked by everyone. I was in favor of the
6 things like reverse osmosis, using the membranes to
7 take out and put in oxygen in order that we have nice,
8 clean water. And I even heard when we had Jared
9 Blumfeld [phonetic], when he was speaking. Currently
10 he's with the environment. He talked about the
11 \$5 million that we would be saving from this project
12 and not using our Hetch Hetchy water. I was all in
13 agreement with that. And they also, at different
14 times, would have talk about using the groundwater,
15 something about Daly City and have the runoff that
16 bleeds all in.

17 So that's kind of like the background to it.
18 I remember the previous speaker, she would have said
19 something about saving money and not using Hetch Hetchy
20 water. The ballpark figure I had heard was \$5 million.
21 That's from SFRPD alone.

22 Now, when I look over this, I wanted to see
23 another source of water. I tried to address the
24 commission on it, the RBE Commission, where we would
25 somehow get saline water right out from the ocean and

1 we use flow extractor principles. And that's how they
2 do things like in chemistry, quantitative chemistry.
3 It's called fissure extractor. You draw the water in,
4 and in the angulation it gets the lower density water.

5 And now, that's the part I kind of like a lot
6 more, the saline, because all we have to do then is
7 remove maybe two thirds of 1 percent. That's all the
8 salt we have to get out. And the rest of it can be
9 processed.

10 I don't really like as much using the run-off
11 that we get from Daly City. So when I look at that, I
12 see that we're going to be kind of luckier -- because
13 over in Marin County, they turned down the saline
14 project. But over here, we have a different source.
15 They have a different problem over there. It's the
16 Richardson Bay and the salinity content as well as
17 breedings for wildlife and fish and that type of
18 activity.

19 But over here we got the big ocean. So if we
20 draw out from there, that would be a nice salinity
21 quality that would be, I think, better than sewer water
22 and better than run-off water. So that's one
23 component. So that's trying to develop an alternative
24 source of treatable waters.

25 Another part I wanted to try to touch upon is

1 wildlife. What would we do to our current wildlife?
2 This water that goes in is going to have a lot of
3 chlorine content. So just looking at it from a little
4 bit of chemistry, there's going to be the halogen.
5 That's chlorine all the way to fluorine. You have your
6 bromides and all of the halogens. Then you also to
7 have methyl groupings where you have to cook something.
8 And you use natural gas, and you cook it. So you're
9 going to have a lot of methyl radicals around.

10 So what happens, sometimes where there is a
11 methyl radical, small viral -- any bacterial protein,
12 then it joins up with the halogen. That stuff is going
13 to give a lot of hell to kids and other wildlife when
14 they go around breathing it. It causes respiratory
15 problems, allergy problems. And you probably might
16 have that problem if you get too much chlorine. So
17 this project uses a lot of chlorine in the lines.

18 Another point I wanted to look at is what they
19 did at the Great Lakes. When they tried to get better
20 water out of there, such as the aquifer, they put down
21 pipes into the ground and then they had used birch
22 trees, white birch trees. And they draw up down-deeper
23 water. So when you can get that water up to the top,
24 it leaves a nicer draw of the water from the aquifer.
25 And that was something I would thought they might

1 include in the project when they try to decorate the
2 place and keep it undercover, where you have trees that
3 have a big tube that goes around the base of it, and
4 the roots get down way deep, so we get down there, and
5 the water just is drawn up naturally from plants.

6 And in a way, that would be almost as good as
7 reverse osmosis because it has to go through the
8 rooting systems.

9 Another point I want to try to bring up would
10 have to do with the waste disposal. Now, I'm sure
11 there's going to be a lot of waste in the Oceanside,
12 over on that side. I'm not sure of the piping that we
13 have here on this side of San Francisco that empties
14 out five miles out -- that's waste disposal. I believe
15 it's under the same people. So that's one kind of
16 stuff I wanted to try to bring up.

17 So these are just a few points. I wanted to
18 mitigate the environmental impact. I want to have a
19 nicer appearing place. This is going to save money for
20 our county. And Jared Blumfeld, he's environmental --
21 current San Francisco Bay Area region, he was also in
22 favor of this project. And he's not the one that leads
23 it. That's when he was the general manager of SFRPD.

24 I would think that -- highly likable because
25 it includes the very expensive cost of reverse osmosis.

1 It's more expensive than Hetch Hetchy water. This is
2 water that's going to cost more money to make, but it
3 will leave available a ballpark figure, maybe
4 \$5 million of Hetch Hetchy water that's potable and
5 what we can use, and it would help future needs when we
6 have to get water.

7 So then in concluding, I'm going to just try
8 to say, I'm hanging myself or whatever -- I'm going to
9 be thinking that this is something worthwhile for our
10 city and county of San Francisco. Thank you very much.

11 CARRIE DOVZAK: Thank you.

12 The next speaker is Peter Drekmeier.

13 PETER DREKMEIER: Good evening. I'm Peter
14 Drekmeier. I'm the Bay Area program director for the
15 Toulumne River Trust. We were founded in 1981 with the
16 mission of protecting and restoring the Toulumne River.
17 And the SFPUC gets 85 percent of its water from the
18 Toulumne by way of the Hetch Hetchy Reservoir.

19 In general, we're very supportive of recycled
20 water because it takes pressure off of the Toulumne.
21 And currently, 60 percent of the river is devoted for
22 human uses, mostly for agriculture but also for urban
23 consumption. And then additional water is lost through
24 evaporations and other causes.

25 So in some years, the fish only see 16 percent

1 of the natural flow. And before there were any dams on
2 the Toulumne, there were 100,000 salmon spawning in the
3 river every year. Last year, there were 280. And the
4 population is really on the brink of extinction from
5 the watershed.

6 We were very involved in the Water System
7 Improvement Program with the SFPUC. We had a lot of
8 meetings, and they were very, very productive. And I
9 think it's important that people get together and voice
10 differences and learn from each other. And we've
11 really learned to trust a lot of the folks at the
12 SFPUC.

13 We reached a compromise a couple years ago for
14 the Water System Improvement Program which originally,
15 in addition to the seismic upgrades, called for
16 diverting another 25 million gallons of water per day
17 from the Toulumne to meet future demand. And to put
18 that in perspective, that's enough water to fill a
19 thousand swimming pools every day. So we were very
20 opposed to that.

21 And the PUC heard our concerns, and we reached
22 a compromise that water sales would be capped at
23 current levels until 2018, and the wholesale customers
24 would really ramp up their water conservation and
25 recycling programs. And PUC, for San Francisco, would

1 find 10 million gallons per day of savings through
2 conservation and recycling and groundwater. And
3 they're doing a great job on conservation already,
4 retrofit and resale ordinance, indoor and outdoor water
5 conservation ordinances. And San Francisco has always
6 been behind others on recycling, so it's really great
7 that we're getting going.

8 Acknowledging, you know, a lot of people in
9 this room have concerns about the location, we assume
10 that alternatives are going to be looked at. And if
11 there's a better site that makes more sense, we
12 certainly should site it there. But if it turns out
13 that this is the best site, I think we have to really
14 weigh the pros and cons and think about this river that
15 we depend on, which is really in pretty bad shape these
16 days, doesn't meet federal water quality standards and,
17 of course, the decline in wildlife.

18 So a couple things we'd like to -- one of our
19 concerns about the project is the cost because reverse
20 osmosis, while it creates wonderful water, pretty close
21 to drinking water, it's very expensive. And we would
22 like to see recycled water be very competitive in the
23 market.

24 And the price of our pristine drinking water
25 is going to triple to pay for the Water System

1 Improvement Program. Climate change is going to reduce
2 the amount available. There are going to be more
3 environmental restrictions. So the price is going to
4 go up, and recycled water will be more competitive.

5 But we would like to see the EIR identify the
6 plants in Golden Gate Park and elsewhere that are
7 drought sensitive and maybe show a map of where they
8 are and explore the possibility of maybe transitioning
9 from those sensitive plants to more salt-tolerant
10 plants so that we can use a more simple recycled water.
11 And as far as the lakes, maybe we would continue to use
12 ground water for those, if there are sensitive species.
13 So we'd like to have that looked at.

14 Another thing we would like to encourage the
15 PUC to look at, possibly partnering with other agencies
16 in the SFPUC service area that aren't necessarily in
17 San Francisco and look for opportunities that would --
18 we would be able to get a lot more bang for the buck,
19 create more recycled water at a lower price.

20 One idea is through the groundwater storage
21 and recovery project. This is focusing on the
22 southwestside groundwater basin beneath northern San
23 Mateo County and southern San Francisco. And the plan
24 there, we have some concerns about it because the idea
25 is to stop pumping that water to fill up that

1 underground aquifer for emergency use during droughts,
2 which makes good sense. But the PUC is offering to
3 provide for surface water to those areas. That means
4 more water from the Toulumne River. So we're very
5 concerned.

6 In our comments, we encouraged that -- for
7 that project to look at either storm water or recycled
8 water to recharge that groundwater basin for annual use
9 of it but in a sustainable way. And perhaps that's
10 something that the PUC could look into, is a system
11 there where we're recharging the groundwater and we're
12 using that groundwater, whether it's for irrigation or,
13 if it's high enough quality, maybe for a potable water
14 source.

15 So those are my comments, and again I want to
16 thank the PUC for really, from what I've heard,
17 improving quite a bit over the years. And we
18 appreciate it.

19 CARRIE DOVZAK: Thank you.

20 The next speaker is Greg Miller.

21 GREG MILLER: My name is Greg Miller, G-R-E-G,
22 M-I-L-L-E-R. My main concern is what's happening to
23 Golden Gate Park, as a previous speaker mentioned. It
24 seems to be administered, particularly on the west end,
25 in a very piecemeal fashion without any oversight or

1 foresight about what's happening with it.

2 I am particularly worried about the nature of
3 this plant being sited in Golden Gate Park. It's a
4 very pretty plant. But I think, in the final analysis,
5 it looks to me like something that would be appropriate
6 for a an industrial park. It's very well designed in
7 that respect. But it is very much out of character
8 with the rest of the park, particularly the western end
9 of the park.

10 So I'd like the EIR certainly to look at the
11 impacts on the aesthetics and the general park
12 experience in the west end. What are the site lines
13 really going to look like for this from key areas, such
14 as not only the drives nearby but also the Murphy
15 Windmill, which the City is going to be spending a
16 great deal of money to reconstruct. It's a historic
17 and a landmark site.

18 My understanding is they also have plans for
19 refinishing the caretaker's cottage as a restaurant or
20 as a pub. And the Golden Gate Master Plan calls for an
21 appropriate garden in the area that can be used for
22 celebrations and relaxation.

23 How will this very modern 21st century factory
24 look next to that? Are there ways of concealing it if
25 you're going to have to put it there or what will it

1 look like?

2 Also, what sounds will be emitted? My
3 understanding is the ventilation shafts for this won't
4 really be shafts but will be openings into the center
5 corridor of the plant. Will there be any noise levels
6 at all at any frequencies at the periphery of the site
7 itself? This should be carefully documented in the
8 EIR.

9 Also, any odors or smells, I'd like that very
10 carefully documented, what's going to be experienced by
11 people nearby.

12 Finally, at night, will there be security
13 lights along the periphery? How much will they impact
14 the area, the experience of the area and also wildlife.

15 I think there's a general issue about siting
16 this plant, which is going to cover -- building's one
17 acre, their own landscaping another acre at least --
18 about the general park experience and useability. We
19 are basically beginning to lose a great deal of a
20 connection of Golden Gate Park to the entire beach
21 area. And this sort of closes off yet another door.

22 And certainly if Lincoln Park does pursue its
23 rebuilding of the soccer fields to the north as
24 artificial turf fields with fences around and
25 everything else, a great deal of that access and flow

1 between the beach and the park will be eliminated,
2 greatly altering even further the nature and experience
3 of the park. And I think this needs to be looked into,
4 the cumulative effects of the probable project, and see
5 what we can do about it.

6 Basically, I think we do need to look at the
7 cumulative impact of this with all the other things
8 that are going on or plan to be going on in the west
9 end Golden Gate park and make sure we don't alter what
10 I think people believe is an wonderful experience into
11 something that's more suburban and industrial.

12 And finally, I would mention that I think the
13 nature of these cumulative effects would massively
14 impact the historical integrity of the design of the
15 park. And this should be looked into and compared to
16 what is envisioned in the National Register because it
17 is a nationally registered historical site, and that's
18 an impact.

19 Finally, we've heard about the need for
20 recycled water. And my question would be, well, in the
21 future there's going to be even a greater need for it.
22 So my question is, will there be possible expansions of
23 production of recycled water that would be called for
24 in the city particularly at this site? If there is, I
25 would like that to be identified as a potential and

1 understand what the potential expansion requirements of
2 this plant would have to be to accommodate those
3 increases.

4 Finally, this is not really a design issue,
5 but I'm a little bit concerned about -- and I'm not a
6 scientist here, so I would like somebody to study this
7 in the EIR -- if there are things that are not filtered
8 out by the proposed filtration project system, such as
9 hormones and things like that, not only what is the
10 immediate impact but what is the potential cumulative
11 impact of taking recycled water with some residual
12 pollutants, maybe at low levels, using it to water our
13 parks and having it flow back into the groundwater
14 aquifer and possibly build up over long periods of
15 time? I'm not a scientist. I'm just suggesting this
16 is something that should be looked into and documented
17 thoroughly.

18 Finally, I think, given all these impacts,
19 it's incumbent on the lead agency and the sponsor to
20 enumerate all the alternative sites in the city they
21 have looked at and give us the plusses and minuses on
22 all those sites and, hopefully, really look at some
23 alternatives. I know, for example, things that have
24 not really been looked at too much would be, like, the
25 armory, located adjacent to the existing Oceanside

1 plant. It's apparently controlled by the State.

2 Well, contracts can be rewritten; swaps can be
3 made; arrangements can be made. I think there needs to
4 be a very careful look, given the impact on this
5 wonderful park, this great park that this great city
6 needs to maintain and continue. Given those impacts,
7 we really need to look much harder at alternative sites
8 for siting this project.

9 So there it is. Thank you very much for your
10 time.

11 CARRIE DOVZAK: The next speaker is Douglas
12 Nelson.

13 DOUGLAS NELSON: Thank you. I'm Douglas Nelson,
14 and I know there are at least a couple of faces here
15 that I recognize. I was one of the coauthors of the
16 Golden Gate Park Master Plan. And we spent a lot of
17 time talking about this site over those two years, in
18 those two years of meetings, developing the Golden Gate
19 Park Master Plan.

20 At the time, you know, we were very happy with
21 the creation of the Oceanside Water Pollution Control
22 Plant that would allow for the decommissioning and
23 removal of the Richmond Sunset Treatment Plant. And
24 that was -- people worked long and hard to make that a
25 reality and reverse that mistake because it was

1 universally recognized that that was an inappropriate
2 use of park land. It should never have been built
3 there. And it took years, but eventually we got it
4 removed. And, you know, that was just before the
5 Master Plan. So we did a planning process for that
6 site. And, you know, obviously it did not include an
7 industrial use such as this.

8 So that's one thing is that this is sort of
9 a -- long-range planning, very disappointing, very
10 disappointing. We've reached this point where there's
11 already an MOU between the Recreation and Park
12 Department and the PUC regarding this site without
13 having proper review and discussion and public
14 involvement in the selection of this alternative.

15 There are a whole number of other issues. And
16 recycled water is, you know, certainly not a bad idea.
17 But I keep missing a number of things in these
18 discussions.

19 One is that the majority of the water in
20 Golden Gate Park is from well water. It's not from
21 potable water. There is some potable water used in
22 parts of this park. But I'd rather take some of this
23 money and improve the water system in Golden Gate Park
24 so that it can reduce its use of municipal water and go
25 strictly to well water.

1 Just also on a historical background, the
2 reason that all those wells are in Golden Gate Park is
3 that back when Golden Gate Park was founded, the Spring
4 Valley Water Company was the privately owned monopoly
5 that provided water at great cost. And so it was
6 decided that, to free them from the tyranny of the
7 Spring Valley Water Company, they created their own
8 well system, though Spring Valley eventually was taken
9 over as a municipal water system. But I fear that
10 we're back in that kind of situation now with the PUC.

11 There's a whole other range of issues involved
12 here. You know, the system in Golden Gate Park is far
13 from perfect. There was -- some of it was rebuilt with
14 the 1992 park infrastructure bond. So some of the
15 water system is rebuilt. A lot of it is still old,
16 leaking system. What's a little bit interesting about
17 the old, leaking system -- and that includes the
18 lakes -- is that at least it's a closed system, and the
19 leaks go right back into the aquifer; it's pumped out
20 in wells. And really the only cost is the well
21 operation, the electricity for the wells. So it's
22 something of a closed system.

23 Now we're going to have a -- if we have just
24 this reclaimed water -- and I'm kind of curious if this
25 will be reclaimed or a blended system because it sounds

1 like they don't want it to be a blended system, but I
2 haven't really seen that for sure. We're going to be
3 leaking reclaimed water back into these wells, which
4 are then perhaps going to go into the municipal
5 drinking water.

6 The property is a national historic --
7 national registered property and probably eligible as a
8 national historic landmark. I hope that, in the
9 discussions of the EIR, it obviously needs to take --
10 it must take that into effect.

11 And I'd also like to see -- I'm kind of
12 curious as to what the status of these other
13 alternatives is because now that we already have a
14 selected site and a design and everything, I'm not
15 clear what role these other alternatives are going to
16 play in the process.

17 I'm also a little bit worried about the
18 schedule that was presented. So design is going to be
19 completed at the same time as the EIR. So if there is
20 an answer, if there is an objective review of
21 alternatives through the EIR, they are going to
22 either -- risking the fact that they're going forward
23 with design now before they get the answer from the
24 EIR, or they know what the outcome will be. And I
25 think that's unfortunate.

1 Also, just regarding plants, I know that, you
2 know, maybe reverse osmosis is too expensive. Well,
3 the alternative to reverse osmosis produces water that
4 is not appropriate for a park. That was anticipated
5 when there was going to be a tertiary plant, the
6 previous plan. It was anticipated that would be a
7 blended system so that they would import water. They
8 would mix it together with the proper amount of well
9 water, and they would attenuate and mitigate the issues
10 with the treated -- the recycled water. Now the
11 reverse osmosis may correct that, but we've already
12 heard that maybe that's too expensive.

13 And the final word I just want to say is that,
14 if we're making these decisions based on cost, I think
15 we're all going to lose. Golden Gate Park is going to
16 lose. And that's not an appropriate way to make
17 decisions for the environmental review. And I'd like
18 to see how that works.

19 One other issue of cost, just one last point,
20 is the cost of this water to the Recreation and Park
21 Department, I'd like to see an analysis of what the
22 cost will be and how this will compare. I do not
23 understand how they're going to pay for this water that
24 they are currently -- the only cost to them now is the
25 pumping from the aquifer. And this is going to be very

1 expensive water. I'd like to see what the impact on
2 the maintainability of the park through the budget
3 process would be with this water. Thank you.

4 CARRIE DOVZAK: The next speaker will be Robert
5 Van Ravenswaay.

6 ROBERT VAN RAVENSWAAY: I'm Robert Van Ravenswaay.
7 I live in the Richmond, and I use Golden Gate Park a
8 lot. And I'll make my comments brief. I think there
9 have been a number of excellent points made. I want to
10 echo a couple of them.

11 The EIR should really do a very detailed
12 alternative analysis of placement at the Oceanside
13 treatment plant. Tertiary treatment is a simple add-on
14 to an existing treatment plant. You're going use
15 basically the same staff, the same administrative
16 structure. You're going to have to duplicate some kind
17 of administrative structure at a new site. I want to
18 see the cost elements laid out in some detail. And I'd
19 be surprised to find that this is really a more
20 cost-effective option.

21 With respect to the project scope, I think you
22 need a lot more clarity about the crosswalk between
23 this project and the groundwater project. It really
24 sounds like you're doing one big project that you're
25 parcelling out into two different projects for the

1 purpose of environmental review, which is kind of maybe
2 not totally legitimate.

3 The Golden Gate Master Plan must be amended.
4 This is part of the General Plan of this city. And I
5 know planning doesn't like to recognize it that way,
6 but when you really work through general plan, the last
7 general plan authorized the creation of the Golden Gate
8 Park Master Plan, and it was approved pursuant to the
9 General Plan.

10 This is a General Plan amendment. It has to
11 be treated that way to really go through because it's a
12 huge change in land use. I mean, you're putting
13 industrial land use out here.

14 There is talk of some potable water coming out
15 of this, possibly in the crosswalk with the groundwater
16 program. So the health issues have to be explored at a
17 great detail for the decision makers to be aware of the
18 impacts of this project.

19 Thank you.

20 CARRIE DOVZAK: The next speaker is Nancy Wuerfel.

21 NANCY WUERFEL: Thank you. My name is Nancy
22 Wuerfel, W-U-E-R-F-E-L. Glad to see people turning
23 out. This is our park. This is going to have to last
24 us indefinitely. This is all the land we've got. It's
25 the biggest patch of land that is open space. We need

1 to hang on to it.

2 I want to address a couple of historical
3 issues having to do with this project.

4 We bought water bonds. We approved them as
5 voters. And from my point of view, this wasn't part of
6 the deal. We were supposed to make sure that we had
7 good water coming down from the Toulumne River,
8 according to the agreements that have been made, in the
9 proper pipes that weren't going to leak, that weren't
10 going to be interrupted by any kind of earthquake.

11 And all of a sudden, blah, blah, blah, a
12 couple of years later, they're talking about my Golden
13 Gate Park. This is not part of the deal why I voted
14 for that money. I wanted to talk about the fact that,
15 when they put together the bonds, we were supposed to
16 have enough money to do the project. Now we're way
17 down the road apiece, "We've got to have this thing
18 finished by 2015," and we're not there yet. And all of
19 a sudden we're changing the plans.

20 The recycled water is different than reverse
21 osmosis. As you just heard someone say, the tertiary
22 water is easier to get to, and that's what they were
23 thinking about when they were putting this project
24 together. Think about -- this is a Cadillac,
25 top-of-the-line, the most expensive way to get recycled

1 water is to have reverse osmosis. We're watering the
2 grass with diamonds. It's unbelievable. I don't
3 understand what the hell we're talking about here.

4 If we need to have the lakes and Conservatory
5 of Flowers, use the well water. That's good. That's
6 what it's thriving on right now -- or Hetch Hetchy if
7 we need to. But you don't water the grass with this
8 most expensive water in the whole world. So that's --
9 that's talk about that.

10 Again, back to the bonds, this was not in the
11 grand plan. So this is an add-on. What part of the
12 project isn't going to be done because we're doing this
13 expensive thing in the park? Also, I don't know what
14 the cost is going to be for this infrastructure. I'm
15 afraid to even bring that up because I know that during
16 an EIR, the money is not part of it.

17 But let's talk about what is part of it, the
18 location. This Golden Gate Park process was not part
19 of it. So we have to demand that there be other sites
20 involved and considered.

21 Also, we have to talk about the other issue,
22 which is how much money are we investing in the soft
23 costs and the design right now for this project that is
24 going to go town the tubes or the toilet, depending on
25 where you stand on this, when we choose something else,

1 which we will do because this is not the right place.
2 This building is in Golden Gate Park. Let's keep it
3 this way. What do you do? Number one, you're going to
4 pick up this building you just spent a lot of money to
5 make and put it someplace else? I think not because
6 everything has to be customized to the new site.

7 So we have some new things to talk about.
8 This idea of keeping it in Golden Gate Park has a lot
9 of smelly parts to it. And I don't mean the treatment
10 plant. I mean this expansion possibility. You know,
11 there is no such thing as the PUC having four acres.
12 I've got the agreement right here. It doesn't say that
13 we're giving away anything. There's not even an
14 agreement of any of the money issues about what is
15 going to be the exchange.

16 I'll read to you from the contract. It says
17 that the PUC will provide fair compensation to Rec and
18 Park. Well, golly gee whiz, how much is that going to
19 be? I can't wait for that thing to be filled in. Plus
20 there's the operation. That means forever and ever and
21 ever. We're never getting this land back. Once we let
22 it go, it's gone. And so are all of its adjacent
23 neighbors. If you start looking at it -- how much time
24 do you want to spend chasing down, "You promised not to
25 go beyond that footprint"? I don't want to spend the

1 rest of my life chasing after people. I want to keep
2 the park as it is now.

3 Also, nobody's talked about our little tsunami
4 zone. In January 2009, our city decided to tell us
5 exactly who's going to be underwater when the tsunami
6 hits. You know, we have earthquakes on this planet,
7 and they sort of travel around the planet. We've got
8 tsunami zones right off the coast. And the map that's
9 online will show you that it's going to come right up
10 exactly where this plant is going to be.

11 Now, again, you have heaps of geologists here
12 to tell us, how is that going to affect the plant? How
13 is that going to affect the transport? How is that
14 going to affect the pipes? We have these pipes running
15 up and down the Great Highway, which is going to be
16 washed out.

17 I'm not sure that we're playing with a full
18 deck of cards here.

19 Also, when we're talking about saving money
20 for the City, let's talk about -- for a moment, there
21 is a State law that says everybody pays the same amount
22 for water. You pay the same amount. I pay the same
23 amount, so does Rec and Park. There's one happy rate.
24 Okay? It has to be to comply with State law. So it's
25 not like Rec and Park is going to pay a little extra

1 for this little goody. We're all going to be
2 subsidizing this reverse osmosis plant.

3 Also, the bonds we paid for that were supposed
4 to be for earthquake -- remember? They're going to be
5 repiping Golden Gate Park. Think about that. That was
6 never part of the plan, to repipe the park. As much as
7 I love the park, that's the park's problem. It's not
8 the PUC's problem and my ratepayer problem.

9 Also, the visitors center was not part of the
10 deal. This is becoming, you know, a violation of the
11 contract that you have with the people. When you put
12 something on the ballot and are buying -- that's what I
13 want you to buy. I don't want you to buy all these
14 frou-frou things along with the rest of it.

15 So we've got a bunch of things that need to be
16 talked about.

17 And the last one is the charter of the City
18 and County San Francisco. It protects Golden Gate
19 Park. I don't know why we're going to do this last.
20 We're going to go through the whole layout, get all
21 this stuff written out here, and then -- let me read to
22 you: "No park land may be sold or leased for
23 nonrecreational purposes, nor any structure on the park
24 property built, maintained, or used for nonrecreational
25 purposes unless there's a vote of the electors."

1 That's you and me.

2 Why don't they ask us? Why don't they vote
3 first, find out if we want it, and then go through all
4 of this? What we're doing is we're spending a hell of
5 a lot of money -- pardon my French -- to get this thing
6 organized. And we haven't even asked the people if
7 it's okay. It's in the charter. You've got to ask me
8 first.

9 Let's deal with the legal stuff, and then I'll
10 be glad to support you on recycled water someplace
11 outside.

12 Thank you.

13 CARRIE DOVZAK: Thank you very much.

14 We have exactly one half hour left before we
15 have to be completely cleared out of this room. That's
16 just a fact. The next person is Katherine Howard.

17 KATHERINE HOWARD: Thank you. That's a hard act
18 to follow.

19 My name is Katherine Howard,
20 K-A-T-H-E-R-I-N-E, H-O-W-A-R-D. I'm with an
21 organization called the Golden Gate Park Preservation
22 Alliance. We gave you some little green slips when you
23 came in the door, www.GoldenGateParkPreservation.org.
24 We will be tracking the project and have information on
25 our Web site, suggestions for letters if you get tongue

1 tied when you write to a bureaucracy -- I'm sorry. I
2 shouldn't use that word. These people are really
3 trying hard to listen, so I think this is really great
4 that we're being given this time.

5 In our opinion, it is vital that the EIR list
6 all the alternate sites that were considered and why
7 they were rejected. Why is that -- and you've heard
8 this before, but I'll say it again. This is not an
9 appropriate use of our park land.

10 Reason number one, it's a building. I mean,
11 it's simple. It's a building. Park land and building,
12 they're two different things. It's a factory building.

13 Two, it takes up precious land, so that's the
14 corollary of the building.

15 And I want to read something from the
16 literature which I think is unfortunate, from the
17 proposed Westside Recycled Water Facility on the third
18 page. It says, "The new recycled water facility would
19 be a, quote, 'building of the park, enhancing
20 recreational opportunities and amenities at a site that
21 is currently under-utilized."

22 This is sort of 1984 doublespeak. "A building
23 of the park" -- I mean, it's a park or it's a building.
24 You don't have a building of the park. Maybe Frank
25 Lloyd Wright could have pulled it off, but this is not

1 the case. "Enhancing recreational opportunities," it's
2 a building. It doesn't enhance recreational
3 opportunities. And amenities, a visitor center for a
4 water treatment plant is not a restroom for kids at a
5 playground. It's a promotional item, I'm sorry, for
6 the utility.

7 And "an area that's currently utilized," the
8 reason it's utilized is because it's been used as a
9 dump. And so of course nobody -- well, few people go
10 there. You can actually do some great bird watching
11 there, by the way. You can go through the fence that's
12 been cut open by people. It's a dump. So clear out
13 the area, just take out the garbage. And even if you
14 don't spend any money, nature will come in there, and
15 she'll take over the place. You can have sand dunes
16 you can have native plants.

17 And I'd like to just have a vision -- and Mary
18 Anne Miller talked about this. We need a vision for
19 this area. And part of the vision -- let me give you
20 some ideas. There's native plants. There's wildlife.
21 There's meadows.

22 And the other things, for example, if you go
23 to the Netherlands, they have a tulip garden there that
24 has all the species -- genetic species of tulips that
25 are endangered because commercial tulip growing can

1 only do so many.

2 So instead of thinking about construction yard
3 or the factory, think about a gorgeous field of bulbs.
4 And it's a genetic bank. And this is the kind of
5 planning and vision that we need for the area. And I
6 think Rec and Park can do this. Rec and Park can come
7 up with some really good things.

8 And I think we need a vision for the area that
9 will make it an area that brings in people. It -- I
10 hate the word, but it activities the area, and it will
11 be really exciting.

12 When have we been asked what we want to do
13 with this park land? Nobody's ever asked us that.
14 Nobody's ever said, "People of San Francisco, what
15 would you like to do with the park land? We have four
16 acres here. What would you like to see?"

17 Why don't we have a competition? Why don't we
18 get some really good stuff?

19 So I want to change the thinking from the
20 negative to the positive. This is four acres that are
21 going to be available for the people of San Francisco
22 to enhance Golden Gate Park, which is such a fantastic
23 place.

24 Another thing I want to address is the whole
25 idea of water. Somebody said to me, "But we're

1 building it to water Golden Gate Park." And I think
2 that's been clearly stated that Golden Gate Park has
3 water. What's being done is that we are stealing water
4 from Golden Gate Park, and then we're giving it back
5 water that is going to cost a lot of money and take
6 up land.

7 As I said, we do have -- we will try to keep
8 information on our Web site. I'd also like to read
9 just -- I'm going to put another hat on here and read a
10 resolution that was passed two nights ago at the
11 Coalition for San Francisco Neighborhoods.

12 The Coalition for San Francisco Neighborhoods
13 is a group of over 40 neighborhood groups from all over
14 San Francisco. And we had a long discussion about it.
15 A lot of people were surprised. They'd never heard of
16 the project. They didn't know anything about it. But
17 one thing that they all share is their love of Golden
18 Gate Park. And I'll skip the "whereases," and this can
19 go in for the EIR request.

20 "The CSFN recommends that the EIR for the
21 Westside Water Treatment Plant include an in-depth
22 exploration of alternative locations outside of Golden
23 Gate Park for the water treatment plant. Be it further
24 resolved, CSFN recommends that the EIR contain an
25 in-depth exploration of alternative designs for the

1 plant building, including but not limited to a
2 completely below-grade plan as described in the Golden
3 Gate Park Master Plan if it is located in Golden Gate
4 Park."

5 And finally, "Resolved that CSFN recommend
6 that the EIR explore including but not limited to the
7 rationale for new pipe installation, the viability of
8 the existing pipes, the rationale for tertiary mixing
9 and alternative processes to it, the need for reverse
10 osmosis, and the rationale and need for a visitors
11 center."

12 This resolution was created by people who had
13 a 30-minute introduction to the project. I'm sure
14 there are a lot more questions. It was passed
15 unanimously by the membership.

16 Thank you very much. I'll give you a copy of
17 it.

18 CARRIE DOVZAK: Thank you.

19 The next speaker is George Wooding.

20 GEORGE WOODING: Thank you. My name is George
21 Wooding, W-O-O-D-I-N-G. I represent the West Twin
22 Peaks Central Council, which represents 18 homeowners
23 associations in District 7 and District 4.

24 The first -- it's hard to follow all these
25 people. Everything has pretty much been covered. I

1 just want to make a few quick points.

2 I studied the MOU on this, and basically, I
3 wanted to ask, why does the PUC agree to pay an
4 undetermined amount of rent to the RPD? This is like
5 signing a lease to rent a building without knowing what
6 the building rent will be. Rent should have been one
7 of the easiest things to determine in this entire
8 proposal. So I'm hoping we can get a range of rent
9 because what I don't want to see happen is have the PUC
10 rate holders subsidizing the Recreation and Park
11 budget. They had a \$12.4 million deficit. So that's
12 number one.

13 Number two, in the September 2005 Recycled
14 Water Master Plan for the City and County, the PUC
15 questions their own ability to protect their own
16 aquifer by using wastewater to irrigate. And they
17 state that they're going to have to do some plans or at
18 least look into this with some studies to make sure
19 that their own wastewater irrigation doesn't destroy
20 their own aquifer. So I'd like to see if the PUC ever
21 did a plan and what follow-through.

22 Okay. I'd also like to see maybe some kind of
23 study that showed all kinds of tertiary irrigation
24 levels used throughout the city of San Francisco so we
25 can get an idea comprehensively of what tertiary water

1 levels are being used, waste water or whatever, because
2 this is a very high level of water.

3 My biggest concern is the actual West
4 transport system. The piping is now going along or
5 underneath the Great Highway. This place was retired
6 in 1981, and it brings water back and forth, primarily
7 wastewater, to the Oceanside plant. And it's going to
8 also ship treated wastewater back to the plant in
9 Golden Gate Park. And I think this is a very old
10 facility. It's in a place which is not a good place.
11 If you were to pick a place to put a plant or a
12 pipeline, this would be probably your last location you
13 would pick.

14 Not only is it old, but the beach is eroding
15 rapidly. We already declared an emergency in January.
16 And they're currently rebuilding the Great Highway.
17 Some of the piping was within 10 yards. And estimates,
18 there are many, but they show that the water level is
19 going to rise rapidly. And much of this part of the
20 beach may have to be surrendered.

21 So I don't think it's prudent or even
22 intelligent to have only one alternative where the only
23 thing you can do is to protect it. You're going to
24 have to build revetments. You're going to have the
25 build walls. You're going to have the change the whole

1 character of Ocean Beach, I think, to get this project
2 through.

3 And then my last point is, because they chose
4 a location that's two and a half miles from the
5 original plant, the original place that they thought
6 was their number one location -- remember, they take
7 the water in; then, they have the ship it back to
8 Golden Gate Park. Well, in their own MOU they state
9 clearly that they're going to also be supplying the zoo
10 and Harding Park, which means that they're going to
11 have to do a third pipe. So they most likely will have
12 to do, over some period of time, a third pipe going
13 back. This is incredibly inefficient.

14 And I think that's all for me. Thank you.

15 CARRIE DOVZAK: Thank you.

16 Okay. Last but not least, Richard Esty
17 Petterson.

18 We have 20 minutes.

19 RICHARD ESTY PETERSON: I came over the hill from
20 Noe Valley on an electric bike. And we have a project
21 going on that side of the city, on Cesar Chavez. And
22 it seems like you got a hundred million dollar plum
23 here that is simply being wasted.

24 The City is now looking at its cisterns for
25 fire and water. It is going to need money for that.

1 If it's looking to save water, there's places all over
2 the city that it can save water. Putting a plant in
3 Golden Gate Park where 20 years ago -- or was it 30
4 years ago or 40? 40 -- we used to go collect sludge,
5 and taking it out, and then drawing water from an
6 aquifer that is perfectly usable makes a lot of sense.

7 We build a billion-dollar sewer plant -- I
8 surf the ocean -- and you have Lake Merced right next
9 door, why aren't you pumping the water into Lake
10 Merced? The aquifer at Lake Merced backs up to the
11 park. And then can you draw water from the park and
12 water.

13 The City has to stop what it's doing and take
14 a comprehensive look at the -- at the entire city and
15 the entire environment. We don't need water in Golden
16 Gate Park. We've got plenty of water. Thanks.

17 CARRIE DOVZAK: The last but not least, Martha
18 Hoffman.

19 MARTHA HOFFMAN: Hi everyone. I'm Martha Hoffman,
20 H-O-F-F-M-A-N.

21 And many incredible points have been made. I
22 just want to speak on behalf of wildlife. And San
23 Francisco's wildlife really has trouble and very, very
24 few places to live and thrive. And this area of the
25 park is one of the places where wildlife does live and

1 thrive.

2 The people who are working on this may never
3 have seen them or even know they're there, but there's
4 everything there, with the birds the foxes, the skunks,
5 the opossums, the racoons. There is a few cats that I
6 take care of as a worker with the SPCA feral cat
7 program. And this would really, really negatively
8 impact the wildlife. It just would displace and
9 disturb -- and it's just really a terrible location, as
10 far as I'm concerned, and would really have a very bad
11 impact.

12 Thanks.

13 CARRIE DOVZAK: Thank you.

14 And Linda Yacobucci.

15 LINDA YACOBUCCI: Hi everyone. Linda Yacobucci.

16 I really wish that one meeting we could come
17 to would be agreeable, be happy about something. We
18 always are up here complaining. The City never
19 listening to us. PUC-type agencies never listen to us.
20 We say we don't want what they're doing, but they go
21 ahead and do it anyway.

22 We're just so sick of this. A park is a park,
23 is a park, is a park, is a park. We all want recycled
24 water; we don't want it in our park. I was going to
25 make a point: Everywhere that you see in their

1 document that it says "existing" means they're going to
2 replace it.

3 And my thought is that, since they have so
4 much acreage, probably what we're going to -- because
5 one of the reasons they want to do it here is it's so
6 convenient to all the areas they want to serve -- I
7 think the wastewater plant's coming here eventually
8 because it's convenient.

9 So that's my thought. And I'm really hoping
10 I'm wrong, but that's my thought. Because why aren't
11 they putting this at the wastewater plant? Get rid of
12 the zoo parking lot. I'm sorry, zoo, there's tons of
13 parking. It needs to go there.

14 As you're hearing tonight, the public is never
15 notified of this stuff ever, ever, ever. You hear this
16 at every meeting. We're so sick of saying it. Rec and
17 Park is one of the worst. Obviously, PUC doesn't do
18 any better.

19 And I'd like to know how you're going to tell
20 the neighbors, when this EIR comes back, that it's back
21 and it's up for comment again, because I think there's
22 another point when we can make comments when the EIR
23 comes back.

24 Boy, the public is just so pissed off at you.
25 Thank you, everybody, for coming. I mean, I had a

1 woman e-mail me, "What's the big deal?" She didn't get
2 that we were losing a piece of our park. I'm just
3 shocked by that kind of just not getting it.

4 And in a scoping meeting, we need to be able
5 to ask questions. I have more questions than I want to
6 be up here ranting, which is what I'm basically doing
7 is I'm up here ranting. I want to be able to ask
8 questions. I need to know -- I mean, at the previous
9 meeting, we were able to ask questions. But that was
10 the first onslaught. We were kind of in shock with all
11 this stuff.

12 I want to know how far down it's going go into
13 the ground and exactly what is the footprint going to
14 be? I hear it's going to be an acre, it's going to be
15 up to four acres.

16 And if you think it's going to be grass and
17 trees, you're living in fantasy land. It's not going
18 to be. Enjoy the trees that are here now. They will
19 be gone. And they'll plant these cute little trees and
20 they'll say, "Oh, but we replanted your trees," as
21 every other program says that they're going to do.
22 Especially -- this is especially famous that Rec and
23 Park does.

24 Yes, we have to demand other sites. And in
25 this scoping, they have to tell us why they didn't want

1 to do the other sites and why -- I said this two weeks
2 ago. Why weren't we asked about this -- why is it we
3 always find out at the end? It's always that we find
4 out at the end, when it's about to go out to some big
5 expensive evaluation. Why can't we stop it before
6 this? Everything is getting so complicated that we
7 only find out when it's too complicated to stop.

8 Fortunately, some people are learning that you
9 can sue. Center for Biological Diversity -- not in San
10 Francisco but in many other places -- all they do is
11 sue the government, constantly -- I have their e-mail
12 newsletter -- constantly suing to stop these agencies
13 from doing what we don't want them to do and we're
14 paying for it.

15 Yes, the wildlife, wildlife is always ignored,
16 always ignored, always ignored. And to me, Golden Gate
17 Park is the wildlife, and the humans are lucky to be
18 able to use it, in my opinion. I just have so much
19 respect for the wildlife.

20 Coyotes eat our feral cats -- I also work for
21 feral cats -- but, you know, we have to be okay with
22 that. I mean, that's nature. I don't like it.
23 There's nothing I can do about it. But I don't want
24 coyotes killed. They're all part of it. So we have
25 had to learn to get along with coyotes.

1 And the City has to learn to get along with
2 us. It's like they're the big grizzly bear. And we're
3 tired of being a little mouse in the field that's
4 running and hiding and trying to be noticed but never
5 being listened to; never, never, never are we listened
6 to.

7 All right. So I think that was it. I just --
8 we need to know when things are happening before they
9 are happening. 2008, who knew this was happening in
10 2008?

11 Thank you.

12 CARRIE DOVZAK: Thank you very much for attending
13 this evening. And I'd just like to touch on where you
14 can send your comments after tonight. You can send it
15 by U.S. Mail to our environmental review officer at
16 City Planning, Bill Wycko.

17 You can also send me e-mail, and I will
18 transfer any e-mail that's sent to PUC and our
19 consultants to be considered in the EIR. You can fax
20 as well. And all of this information is available on
21 the back table. You can take it home.

22 The Notice Of Preparation is available in its
23 entirety on line, tiny-url.com/puccases. And that's
24 the City Planning Web site. They're also available at
25 local libraries. So if there's a library nearby, you

1 can go and read them there.

2 If you do have any further questions, you can
3 call me. That's my number, 575-9030. And if you have
4 questions about the project itself -- I'm answering
5 questions about the environmental review -- Suzanne
6 Gautier, there she is, you can reach her at the number
7 554-3204.

8 And I know that Suzanne has other meetings
9 that are planned for different interest groups --
10 possibly?

11 SUZANNE GAUTIER: There are some requests, but if
12 you have an interest, please contact me. And on the
13 materials that are at the back table that have been
14 quoted this evening, my name, number, and contact
15 information is also on those materials.

16 CARRIE DOVZAK: Again, thank you, ladies and
17 gentlemen, for attending this evening.

18 UNIDENTIFIED SPEAKER: And the slide show will be
19 put up somewhere?

20 CARRIE DOVZAK: I'll look to see where it can be
21 put up on the City Planning Web site.

22 (Whereupon, the proceedings concluded
23 at 8:48 o'clock p.m.)

24
25

1 STATE OF CALIFORNIA)
2 COUNTY OF MARIN) ss.

3 I, DEBORAH FUQUA, a Certified Shorthand
4 Reporter of the State of California, duly authorized to
5 administer oaths pursuant to Section 8211 of the
6 California Code of Civil Procedure, do hereby certify
7 that the foregoing proceedings were reported by me, a
8 disinterested person, and thereafter transcribed under
9 my direction into typewriting and is a true and correct
10 transcription of said proceedings.

11 I further certify that I am not of counsel or
12 attorney for either or any of the parties in the
13 foregoing proceeding and caption named, nor in any way
14 interested in the outcome of the cause named in said
15 caption.

16 Dated the 13th day of October, 2010.

17
18
19 DEBORAH FUQUA

20 CSR NO. 12948
21
22
23
24
25

APPENDIX D

Comments Received During EIR Scoping Process

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
 P. O. BOX 23860
 OAKLAND, CA 94623-0660
 PHONE (510) 622-5491
 FAX (510) 286-5559
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October 7, 2010

SFVAR001
 SF-1/35
 SCH#2008052133

Ms. Carrie Dovzak
 Planning Department
 City and County of San Francisco
 1650 Mission Street, Suite 400
 San Francisco, CA 94103-2479

Dear Ms. Dovzak:

San Francisco Westside Recycled Water Project – Notice of Preparation

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the San Francisco Westside Recycled Water Project. The following comments are based on the Notice of Preparation. As lead agency, the San Francisco Planning Department is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, and implementation responsibilities as well as lead agency monitoring should be fully discussed for all proposed mitigation measures and the project's traffic mitigation fees should be specifically identified in the Environmental Impact Report. An encroachment permit is required when the project involves work in the State's right of way (ROW). The Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore, we strongly recommend that the lead agency ensure resolution of the Department's California Environmental Quality Act (CEQA) concerns prior to submittal of the encroachment permit application; see the end of this letter for more information regarding the encroachment permit process.

Cultural Resources

For any construction activities proposed within the State ROW, the Department requires documented results of a current archaeological record search from the Northwest Information Center (NIC) of the California Historical Resources Information System before an encroachment permit can be issued. Current record searches must be no more than five years old. The Department requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, to ensure compliance with National Environmental Policy Act (NEPA) (if there is federal action on the project), CEQA, Section 5024.5 of the California Public Resources Code (for state-owned historic resources) and Volume 2 of the Department's Environmental Handbook (Caltrans Standard Environmental Reference (SER), available at <http://www.dot.ca.gov/hq/env/index.htm>). Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to State

"Caltrans improves mobility across California"

Ms. Carrie Dovzak/City and County of San Francisco
October 7, 2010
Page 2

We encourage the San Francisco Planning Department to coordinate with our Project Manager, Howard Reynolds at 510-286-7252 for all San Francisco Public Utilities Commission Water System Improvement Program (WSIP) projects.

Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. District Design Review approval will be required for all WSIP projects prior to applying for encroachment permits. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/developserv/permits/>

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Michael Condie, Mail Stop #5E.

Should you have any questions regarding this letter, please call Yatman Kwan of my staff at (510) 622-1670.

Sincerely,



LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse



CLEAN WATER ACTION

CALIFORNIA

October 13, 2010

RECEIVED

Bill Wycko
 San Francisco Planning Department
 1650 Mission Street, Suite 400
 San Francisco, CA, 94103
 Sent Via Facsimile: (415) 558-6409

OCT 14 2010

CITY & COUNTY OF S.F.
 PLANNING DEPARTMENT
 RECEPTION DESK

San Francisco
 111 New Montgomery Street
 Suite 600
 San Francisco, CA 94105
 Tel: 415.369.9160
 Fax: 415.369.9180

www.cleanwateraction.org/ca

**Re: Case No. 2008.0091E – San Francisco Westside Recycled Water Project
 Notice of Preparation of an Environmental Impact Report**

Dear Mr. Wycko:

The following suggestions for the scope of the Environmental Impact Report (EIR) for the San Francisco Westside Recycled Water Project are submitted on behalf of Clean Water Action.

Relation to other Environmental Documents

Section 1.1.3 (page 4) of the scoping document identifies the interconnection of this project with the SF Groundwater Supply Project. Given that connection, these projects should be studied concurrently. Separating projects that are so interdependent amounts to piecemeal review. At a minimum, it potentially precludes alternatives that can better serve both projects, for instance using recycled water to recharge the groundwater aquifer.

The amended project diverges from the adopted alternative in the Water System Improvement Program Programmatic EIR, which identifies the development of four million gallons per day (mgd) of recycled water within San Francisco by the year 2018. The current project has been reduced from 2.8mgd to 1.6mgd, a reduction of 1.2 million gallons, and now provides less than half the amount identified in the WSIP PEIR. This reduction in yield poses a potentially significant impact on the ability of San Francisco to meet its 2018 demand objectives. While it is true that the additional 2.2 mgd could come from the East Side Recycled Water Project, that assumption would create yet another charge of piecemeal project review – assuming that another project will fill the gap in the current one is not a conclusion that can legally be drawn. This project must identify how the 2.4 mgd in demand reduction on the regional system will be achieved, and include that solution as part of the project to be evaluated in this document.



Project Objectives

The first two project objectives "Diversify the SFPUC's water supplies by developing recycled water" and "Develop a new water supply in San Francisco that is both reliable and drought-resistant" are appropriate. The third objective "reduce the use of potable water and groundwater for irrigation and other non-potable uses by supplying those demands with recycled water" is not, as it unnecessarily limits potential projects alternatives and doesn't specifically address the reason for this project, which is to reduce San Francisco's demand on the regional water system. A more appropriate objective would be to "reduce San Francisco's demand on the regional water system by replacing imported supplies with local sources."

Project Components

The project size is 1.6mgd average, with a capacity to increase to 2.0mgd. The 2008 Recycled Water Master Plan estimates the demand of the "Westside Baseline Project" at roughly 4mgd, while the "Expanded Westside Project" adds about .3mgd to that amount. This document should include potential expansion sites to fulfill the additional .4mgd of supply, and the potential impacts of said expansion. Note that this project sizing confirms that the preferred project cannot fulfill the WSIP goal of generating 4 mgd of recycled water by 2018.

The project envisions a treatment combination of microfiltration and reverse osmosis to remove constituents from the water, including chlorides and solids. But the scoping document also notes that areas planted with salt intolerant plants may continue to receive potable water, so it remains unclear what level of treatment is needed or contemplated for different users of the water.. The EIR should identify the range of uses being considered for the recycled water (such as playing fields, toilet flushing, turf irrigation, lake recharge), the water quality needed to serve those uses, and the different levels of treatment being considered for each of those uses. The quality of the source water should also be identified; treated wastewater on the west side of the City generally has lower levels of sediment and chlorides than untreated water supplied from the Delta - which serves approximately 20 million California residents - so the level of treatment needed for basic landscape needs (such as golf courses) should be relatively low.

Environmental issues to be studied in the EIR

Land Use, Biological Resources



CLEAN WATER ACTION

CALIFORNIA

While Clean Water Action strongly supports the development of recycled water supplies, as well as the efforts of the SFPUC to diversify its water supplies, we have concerns about the use of park land to site treatment facilities. This document should consider the impact of all recycled water infrastructure within these parks. Golden Gate Park is a regional resource, so replacing the acreage lost to this facility at a comparable site may be difficult. In addition, the proposed design significantly changes the west end of the Park, which is currently a quiet area that is hospitable to local fauna. This document should identify the impacts of construction on local wildlife as well as the impact of increased, 24-hour activity and lighting in the area.

6.1.16 Hydrology and Water Quality

The document should compare the impact on the receiving waters (Pacific Ocean) of decreased quantity and reduced pollutant loading of effluent from the Oceanside Plant with that of the no project alternative. In addition, it would be helpful to understand the water quality being considered for use for lake recharge in Golden Gate Park and the impact of recycled water of varying qualities on invertebrates in the Park.

Sea Level Rise

The impacts of sea level rise can already be detected at Ocean Beach. Those impacts will increase through the life of this project. The use of the transport tunnel under Great Highway to convey flows and potentially a brine line mean that this project is vulnerable to any sea level rise that impacts the tunnel. The EIR should provide defensible estimates of sea level rise, storm surge and beach erosion, and the impact of these on the Great Highway Tunnel.

Alternatives to be studied

1. Alternative sites. This document should identify the reasons for selecting Golden Gate Park as the preferred alternative, and study at least one alternative that sites the plant near the current Oceanside Treatment Plant. The expense would be similar – instead of a brine line alongside the transport tunnel (a variant under consideration), a treated water pipe could be laid here, making the same connections to Golden Gate Park, Lincoln Park and Presidio Golf Course. This alternative would also provide greater ability to increase the capacity of the plant and reach potential users south of Golden Gate Park in future.
2. Aquifer recharge. The use of recycled water to recharge groundwater aquifers is current



practice in other areas (Orange County, for instance), and should be seriously considered in this case. It would require less invasive infrastructure (no distribution lines, no storage tanks) in city parks, could operate on a more consistent basis (since it won't need to respond to seasonally fluctuating demand), would require less energy, and could provide a greater yield than the current 1.6mgd envisioned in this project. This is an economically and environmentally superior alternative that should be fully evaluated in the document

3. Aquifer recharge/golf course supply alternative. An alternative project would be to combine an aquifer recharge project with on-site recycled water opportunities at the Presidio Golf Course and Lincoln Park. An on-site "scalping" facility at one or both locations could be used to siphon untreated wastewater from the collection system and treat it to the level needed to irrigate the two golf courses, with the leftover brine returned to the system. This would reduce potable water use in an area that does not have access to groundwater.

Thank you for providing the opportunity to comment on the review of this important project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Clary".

Jennifer Clary
Policy Analyst



Golden Gate Park Preservation Alliance ©

"Destroy a public building and it can be rebuilt in a year; destroy a city woodland park and all the people living at the time will have passed away before its restoration can be effected."

William Hammond Hall, Surveyor
First Superintendent of Golden Gate Park

October 12, 2010

Mr. Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA, 94103

Re: **EIR Case No.2008.0091E**
SF Westside Recycled Water Project
(Recycled water project, including factory planned for Golden Gate Park)

Dear Mr. Wycko:

Following are comments pursuant to a September 8, 2010, Notice of Preparation for the Environmental Impact Report for the referenced project (herein referred to as the Factory). We would like to take this opportunity to outline some of the issues that we feel should be included in the EIR. We also encourage the Department to start comprehensive outreach to a broader range of members of the public who have expressed concern in the past with issues relating to Golden Gate Park. All San Franciscans and Bay Area residents should have the opportunity to raise their own concerns about the project with the Department.

SUMMARY:

The following are issues which we feel should be thoroughly explored in an EIR:

- **Potential impacts of the proposed project;**
- **Alternative locations for the proposed project;**
- **Alternative designs for the proposed project;**
- **Review of documents and agreements relating to the proposed project;**
- **Issues related to other water treatment projects;**
- **The safety of all aspects of the proposed project;**
- **Issues related to the use of membrane filtration and reverse osmosis in the proposed project;**
- **Customer retrofits;**
- **Future Expansion of the project:**
- **Issues related to additional and/or adjacent projects, including both the existing and proposed renovated athletic fields adjoining the proposed project;**
- **Water conservation alternatives**
- **Beach Chalet Athletic Field Renovation Project scoping letter**

DETAILS:

Potential impacts of the proposed project

- The EIR should discuss the ways in which the project described by the PUC may have a substantial adverse impact on the historic integrity of Golden Gate Park. The National Register of Historic Places lists the characteristics of the Park as pastoral, with recreation areas that blend into that setting. The EIR should discuss the ways in which the proposed project may considerably change this area because, among other things, the project:
 - Adds a building where this is no building at this time
 - Takes away land from an area that could be recovered and used to fulfill the landscape needs of Golden Gate park
 - Has lighting where there is no lighting at this time;
 - Removes trees and shrubs;
 - Removes trees that provide a windbreak, which protects the rest of Golden Gate Park;
 - Injects a factory building into an area that is adjacent to landmarks, removing the possibility of establishing connections between them in the western end of Golden Gate Park Adds paving for more parking, introducing more cars to parkland;
 - Introduces truck traffic to the space
 - Changes the space from an open space to one dominated by a large building and related driveways and parking
 - Introduces 24 hour activity to a space that is currently used only during the day
 -
- The EIR should analyze how construction will impact the immediate and adjoining parkland, including but not limited to:
 - The use of earth-moving equipment and cranes;
 - Removal of sand and soil down to the depth of the storage tanks;
 - construction zone needed for building this type of factory ;
 - Removal of trees and shrubs;
 - Damage to remaining trees, and tree roots damaged, by construction, including trenching for underground utilities.
- The EIR should analyze how construction will impact the area outside Golden Gate Park, including but not limited to:
 - The impact of constructing a pipeline below the Great Highway, including but not limited to;
 - The safety of the proposed pipeline;
 - The impact of erosion on the proposed pipeline;
 - The impact of the proposed pipeline on the character of Ocean Beach;
 - The impact of global warming and project sea-level rising on the proposed pipeline and the location of the factory;
 - The impact of the construction of the project on adjoining residential and commercial neighborhoods;
 - The impact of construction on all parklands that will be receiving water treated in the proposed plant, including but not limited to Lincoln Park and Golf Course, and Presidio Golf Course.
- The EIR should study parking and traffic impacts, including but not limited to:

- Impact on traffic in Golden Gate Park;
 - Impact on traffic along the Great Highway;
 - Impact on bicycle lanes in Golden Gate Park;
 - Impact on traffic in the neighborhood surrounding Golden Gate Park;
 - Impact on the above traffic and parking issues not only during ordinary weekdays and weekends, but also during special, heavy-park usage events such as the Outside Lands Festival, the Bay to Breakers, and all the other events that take place throughout Golden Gate Park and at Ocean Beach.
- The EIR should study the impacts to wildlife, including but not limited to:
 - Loss of meadow, trees, and shrubs;
 - Loss of windbreak which protects the rest of Golden Gate Park;
 - Loss of tree roots for trees that are to remain;
 - Loss of irrigation for trees that are to remain;
 - Loss of food sources, such as insects and gophers, for wildlife;
 - Increase in paved surfaces;
 - Increase in trash and food waste;
 - Increase in noise from factory motors, trucks and other equipment
 - Increase in truck traffic
 - Increase in foot traffic to the visitor center
 - Introduction of all of these elements next to a native plant planting area and the impact on the insect, butterfly and other species that are attracted to the native plants;
 - Introduction of all of these elements along the Pacific Flyway and to the green corridor that is Golden Gate Park.
- The EIR should study aesthetic impacts and the impacts on the quality of life of surrounding areas due to the proposed project, including but not limited to:
 - Loss of trees and shrubs;
 - All impacts due to the release of odoriferous material as a result of the proposed project;
 - All impacts due to noise related by the proposed project;
 - All impacts due to artificial lighting related to the proposed project;
 - The aesthetic impact on the areas adjoining the proposed plant, including but not limited to Murphy Windmill and the historic millwright's cottage;
 - The impact of the proposed project on a nearby playground near 26th Avenue;
 - Presence of a large, 3-story above-ground facility.
- The EIR should study the loss of parkland use for a wider variety of users, including but not limited to:
 - Loss of the potential for general recreation uses, including but not limited to kite flying, individual exercise, picnicking, sun-bathing, bird-watching, concerts, dog exercise, nature walks, enjoyment of darker skies at Ocean Beach, astronomy, and any sport activity that requires a stake (for example, volleyball, croquet, footbag/hacky sack with a net.)
- The EIR should study the impact of the project on the aquifer underneath Golden Gate Park, including but not limited to:
 - Depletion of the aquifer;

- Cumulative contamination of the aquifer with inorganic and organic contaminants, including but not limited to heavy metals, halogens, pharmaceutical waste, pesticides, hormones, etc.
- The EIR should study the impact of the energy needed to power the plant, including but not limited to:
 - Amount of energy needed to pump water into and out of the water recycling plant;
 - Energy needed to process the water according to various water treatment standards
- The EIR should study the impact of tertiary treated water from the proposed project on the environment, including but not limited to the following:
 - The impact of exposure to tertiary treated water on the health and viability of vegetation;
 - The impact of exposure to tertiary treated water on humans and all other vertebrate and invertebrate species.
- The EIR should study and identify contaminants in the water from the proposed plant, including but not limited to heavy metals, halogens, endocrine disrupters, and pharmaceuticals; and the impact of any contaminants on the environment, including but not limited to:
 - Contamination of the ground water below Golden Gate Park;
 - Contamination of the air;
 - Contamination of the ocean;
 - Contamination of foliage and grass.
- The EIR should study the economic impact of the project, including but not limited to:
 - The impact on the cost of water to consumers;
 - The impact on the cost of the project to the taxpayers;
 - Consideration of less expensive alternatives to the proposed project.

Alternative locations for the proposed project

- The EIR should explore all other alternative locations that could be used for this project, including but not limited to:
 - Other locations owned by SFPUC, including but not limited to Lake Merced and Fleishacker Zoo;
 - Other locations owned by other City agencies.
- The EIR should explain why each alternative site, if rejected, is not acceptable

Alternative designs for the proposed project

- The EIR should explore alternative designs that preserve the natural meadow and forest feeling of the area, including but not limited to:
 - Construction of a plant that is completely underground;
 - Construction of an above-ground factory that has a smaller footprint and is lower in height than the currently proposed factory.
 - Construction of berms surrounding the factory, so that the factory is not visible from any angles to Park visitors.

Review of documents and agreements relating to the proposed project

- The EIR should explain the relationship of the proposed project to all relevant City documents and agreements. The individual and cumulative impact of these documents and agreements on Golden Gate Park and Ocean Beach should be examined and explored in detail. These documents include but are not limited to:
 - The San Francisco General Plan;
 - The Golden Gate Park Master Plan;
 - All current and proposed water supply agreements entered into or to be entered into by the SFPUC;
 - All agreements with other Departments and Agencies in the City related to the proposed project, including but limited to all Memoranda of Understanding between the SFPUC and the SF Recreation and Parks Department.

Issues related to other water treatment projects

- The EIR should explain the relationship of the proposed project to all other water recycling projects in San Francisco and related areas as well as their impact on Golden Gate Park, including but not limited to:
 - Proposed water treatment projects in San Francisco;
 - Proposed water treatment projects in surrounding communities with which San Francisco has water supply agreements.
 - Proposed use of groundwater from under Golden Gate Park.

Safety of all aspects of the proposed project

- The EIR should explore all environmental safety issues related to the proposed plant, including but not limited to:
 - Contamination of ground water by secondary or tertiary treated water;
 - Contamination of secondary treated water by raw sewage while the secondary treated water is traveling in pipes from its origin at the Oceanside water treatment plant to the proposed plant in Golden Gate Park;
 - The risk of damage to the project by earthquakes, tsunamis, and other natural disasters;
 - The risk of damage to the project by terrorists, industrial accidents and other man-made disasters.

Issues related to the use of membrane filtration and reverse osmosis in the proposed project

- The EIR should explore all issues related to the use of membrane filtration and reverse osmosis in the proposed plant, including but not limited to:
 - The removal of waste material resulting from the membrane filtration process;
 - The removal of a reverse osmosis concentrate, which is a concentrated brine solution containing contaminants including, but not limited to, bacteria, viruses, organic particles (pesticides), and inorganic particles (heavy metals);
 - The impact of dumping the reverse osmosis concentrate into the ocean.

Customer Retrofits

- The EIR should explore all retrofits required to bring the systems to be used in the project into compliance with all local, State and Federal regulations, including but not limited to:
 - Compliance with California Department of Public Health Services Title 22 and Title 17 requirements, regulating the production and use of recycled water;
 - The installation of limited sections of pipeline, the installation of backflow preventers, and the replacement of noncompliant irrigation system components.

Future Expansion of the Project

- The EIR should explore the possibility of future expansion of the factory at the Golden Gate Park location and the impact on all of the issues included in this document.

Issues related to additional and/or adjacent projects, including both the existing and proposed renovated athletic fields adjoining the proposed project

- The EIR should discuss how the proposed water recycling plant is related to additional and related projects being considered by the SF PUC, including but not limited to:
 - Removal of water from the aquifer under Golden Gate Park;
 - Purification of the water from the aquifer under Golden Gate Park;
 - Transport of the water from the aquifer under Golden Gate Park to reservoirs
 - Safety of combining water from the aquifer under Golden Gate Park with the current drinking water provided to San Francisco;
 - Construction of additional water recycling plants elsewhere in San Francisco.
- The EIR should study the cumulative impact of the existing and proposed athletic/soccer field adjoining the project, including but not limited to:
 - Toxic and safety impacts on the underlying aquifer relating to artificial turf and its infill, including but not limited to heavy metals, volatile organic compounds, carcinogens, asthma triggers, bacterial growth and infection risk (including MRSA).
 - Cumulative impact on historic and aesthetic character of Golden Gate Park and Ocean Beach.
 - Cumulative effect of increased lighting, paving, traffic and all other issues considered in both this document and in the attached document for the Beach Chalet Athletic Field renovation EIR.

Water conservation alternatives

- The EIR should discuss water conservation alternatives to the proposed project, including but not limited to:
 - Use of desalinated water;
 - Use of water in wells in Golden Gate Park and other areas to be served by the proposed project;
 - Collaboration with other agencies, including but not limited to Bay Area Water Users Association, for construction of a water recycling plant outside of San Francisco
 - Retrofitting of Recreation and Park piping and other irrigation fixtures to achieve water savings;

- Use of permeable paving and permeable pavers throughout San Francisco parks to promote replenishment of the aquifer
- Removable of additional paving in golden Gate Park to promote replenishment of the aquifer
- Use of tertiary water in all buildings in all Parks in San Francisco, including the major institutions in Golden Gate Park.

Beach Chalet Soccer Field Scoping letter

In addition to the foregoing, also attached is a letter dated September 25th, 2010 addressing scoping issues of Beach Chalet Soccer Fields proposed for construction in Golden Gate Park. All requests for consideration in that letter are hereby incorporated by reference.

CONCLUSION:

We are looking forward to the inclusion of the above issues and other related issues in the EIR, so that the resulting project can be the most beneficial for preserving the beauty and historic context of Golden Gate Park, as well as providing safe drinking water and irrigation water for San Francisco.

In addition, we remain very interested in the steps that will be taken in the development of the EIR and the pursuit of this project. We request that the Department notify us and the people copied on this letter about the Department's plans at this time and throughout the EIR process.

Thank you for your consideration.

Sincerely,

Katherine Howard, Co-Chair
Golden Gate Park Preservation Alliance

cc:

Carrie Dovzak, the CEQA coordinator, San Francisco Planning Department
Mark Buell, President, Recreation and Park Commission
Margaret McArthur, Secretary, Recreation and Park Commission
Dan Mauer, Project Manager, Recreation and Park Department
Parks and Recreation Open Space Committee, San Francisco (PROSAC)

Mayor Gavin Newsom
Clerk of the Board of Supervisors
David Chiu, President, San Francisco Board of Supervisors, District 3
Ross Mirkarimi, San Francisco Board of Supervisors, District 5
Eric Mar, San Francisco Board of Supervisors, District 1
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John Avalos, San Francisco Board of Supervisors, District 11
David Campos, San Francisco Board of Supervisors, District 9
Carmen Chu, San Francisco Board of Supervisors, District 4
Chris Daly, San Francisco Board of Supervisors, District 6
Bevan Duffy, San Francisco Board of Supervisors, District 8

Sean Elsbernd, San Francisco Board of Supervisors, District 7
Sophie Maxwell, San Francisco Board of Supervisors, District 10

Arthur Feinstein, Sierra Club
Dr. Eliot Katz, In Defense of Animals
John Rizzo, Sierra Club
Michael Lynes, Golden Gate Audubon Society
Noreen Weeden, Golden Gate Audubon Society
Peter Brastow, Nature in the City
Roy C. Leggitt, III, Consulting Arborist

Amy Westervelt Managing Editor, *Earth Island Journal*
California Academy of Sciences
California Communities Against Toxics
Caroline Cox, Research Director, Center for Environmental Health
Dave Phillips Executive Director, Earth Island Institute
Deb Self, Executive Director San Francisco Baykeeper
Greenaction for Health and Environmental Justice
San Francisco Foundation
San Francisco Green Party
Save the Bay
Surfrider Foundation, San Francisco Chapter

Melanie Macchio, The Cultural Landscape Foundation
Jennifer Gates, California Preservation Foundation
Mike Buhler, San Francisco Architectural Heritage
Alexandra Bevk, San Francisco Architectural Heritage
Charles Chase, SF Historic Preservation Commission
Janet Gracyk, Historic American Landscape Survey (HALS)
Jim Chappell, San Francisco Beautiful
Sheila Kolenc, San Francisco Beautiful
Susan Brandt-Hawley, Preservation Lawyers

Carolyn Blair, San Francisco Tree Council
David Eldred, Keep the Arboretum Free
David Goggin, San Franciscans for Smart Lighting
George Wooding, West of Twin Peaks Central Council (WTPCC)
Gerry Crowley, Telegraph Hill Dwellers
John Frykman, Coalition to Save Ocean Beach, Friends of Sutro Park
Judy Berkowitz, Coalition for San Francisco Neighborhoods (CSFN)
Judy Irving, Telegraph Hill Dwellers
Julie Burns, Friends of Lands End
Kelley Watts, Francisco Heights Civic Association
Libby Benedict, Friends of Rossi Park
Marc Duffett, Sunset Parkside Education and Action Committee (SPEAK)
Mary Anne Miller, San Francisco Tomorrow
Nancy Wuerfel, Golden Gate Park Preservation Alliance
Ray Holland, Planning Association for the Richmond (PAR)
Suzanne Dumont, Save the Stowe Lake Boathouse Coalition

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Golden Gate Park Preservation Alliance ©

OCT 13 2010

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PLANNING DEPARTMENT
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"Destroy a public building and it can be rebuilt in a year; destroy a city woodland park and all the people living at the time will have passed away before its restoration can be effected."

William Hammond Hall, Surveyor
First Superintendent of Golden Gate Park

October 12, 2010

Mr. Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA, 94103

Re: **EIR Case No.2008.0091E**
SF Westside Recycled Water Project
(Recycled water project, including factory planned for Golden Gate Park)

Beach Chalet Soccer Field Scoping letter

Attached please find the letter dated June 25th, 2010 addressing scoping issues for the Beach Chalet Soccer Fields proposed for construction in Golden Gate Park. Please attach this to the Scoping Letter for the SF Westside Recycled Water Project that was submitted in hard copy and by email, as referenced.

Sincerely,

A handwritten signature in cursive script that reads "Katherine Howard".

Katherine Howard, Co-Chair
Golden Gate Park Preservation Alliance

Attachment: June 25, 2010 Scoping Letter



SF Ocean Edge

Where Golden Gate Park meets Ocean Beach . . .

www.sfoceanedge.org

June 25, 2010

Mr. Phil Ginsburg, General Manager
Department of Recreation and Park
McLaren Lodge
501 Stanyan Street
San Francisco, CA 94117

Dear Mr. Ginsburg:

We appreciate the decision of the Department of Recreation and Park (RPD) to perform an Environmental Impact Report for the Beach Chalet Athletic Field renovation project.

SUMMARY:

We would like to take this opportunity to outline some of the issues that we feel should be included in the EIR and which we would like to discuss further at a public scoping session at the beginning of this process. We also encourage the Department to start comprehensive outreach to a broader range of members of the public than has been done to date. All San Franciscans and Bay Area residents should have the opportunity to raise their own concerns about the project with the Department.

The following are issues which we feel should be thoroughly explored in an EIR:

- A range of alternative construction methods for renovation of the Beach Chalet athletic fields, including natural (living) grass;
- A range of alternative designs that can provide some amenities without losing the parkland character of the meadow and surrounding forest;
- A range of alternative locations for the athletic fields;
- Documentation of the site, using the National Park Service, HALS (Historic American Landscape Survey) methodology, and documenting at a Level I status, for significant American Landscapes.

DETAILS:

The potential impacts of the proposed project

- The EIR should discuss the ways in which the project described by RPD may have a substantial adverse impact on the historic integrity of Golden Gate Park. The National Register lists the characteristics of the park as pastoral, with recreation areas that blend into that setting. The EIR should discuss the ways in which the proposed project may considerably change this area because, among other things, the project:
 - Has a non-pastoral design;
 - Changes the space from an irregular meadow-like outline to a rectilinear space;
 - Has lighting where there is no lighting at this time;
 - Introduces sports complex lighting to a pastoral space;

- Adds paving where there is no paving at this time;
 - Removes trees and shrubs from a pastoral space;
 - Removes trees that provide a windbreak, which protects the rest of Golden Gate Park;
 - Replaces natural (living) grass with artificial turf;
 - Changes the views into and out of the area;
 - Removes current links to adjacent landmarks;
 - Adds a concession area, new play equipment, and more paving for this area;
 - Adds more paving for more parking, introducing more cars to parkland;
 - Changes the space from a multi-use space to a limited sport-specific use area.
- The EIR should analyze how construction will impact the parkland, including but not limited to:
 - The use of earth-moving equipment and cranes;
 - Removal of up to two feet of topsoil for the artificial turf ;
 - The sports lights excavation to 10 feet and installation of supports for the lights;
 - Trees and shrubs removal;
 - Damage to remaining trees, and tree roots damaged, by construction, including trenching for underground utilities.
- Parking and traffic impacts to be studied in the EIR should include but are not limited to:
 - Impact on the parking at Ocean Beach;
 - impact on traffic in Golden Gate Park;
 - Impact on traffic along the Great Highway;
 - Impact on bicycle lanes in Golden Gate Park;
 - Impact on traffic in the neighborhood surrounding Golden Gate Park;
 - Impact on the above traffic and parking issues not only during ordinary weekdays and weekends, but also during special, heavy-park usage events such as the Outside Lands Festival, the Bay to Breakers, and all the other events that take place throughout Golden Gate Park and at Ocean Beach.
- Impacts to wildlife to be studied in the EIR should include but are not limited to:
 - Loss of meadow, trees, and shrubs;
 - Loss of windbreak which protects the rest of Golden Gate Park;
 - Loss of tree roots for trees that are to remain;
 - Loss of irrigation for trees that are to remain;
 - Loss of food sources, such as insects and gophers, for wildlife;
 - Increase in paved surfaces;
 - Increase in trash and food waste;
 - Introduction of night lighting to an area that is currently not lighted;
 - Introduction of intensely bright sports night lighting in an area that is currently not lighted;
 - Introduction of all of these elements next to a native plant planting area and the impact on the insect, butterfly and other species that are attracted to the native plants;
 - Introduction of all of these elements along the Pacific Flyway and to the green corridor that is Golden Gate Park.
- Aesthetic impacts to be studied in the EIR should include but are not limited to:
 - Loss of meadows, trees and shrubs;
 - Loss of screening of views into the construction area to the south of the field;

- Loss of screening of the area from the surrounding roads;
- Direct and reflected night lighting affecting the Dark Sky;
- Direct and reflected night lighting affecting the evening sunset and beach experience at Ocean Beach, the Great Highway Parking lot, Sutro Heights, and the Cliff House area.
- Water usage to be studied in the EIR should include but is not limited to:
 - Quantity of water needed for cleaning the artificial turf;
 - Type and chemical make-up of cleansing solutions for the artificial turf;
 - Impact of increase in sending cleansing solutions and water to the sewer system;
 - Impact of sending rainwater to the sewer system;
 - Impact of not sending rainwater to the aquifer.
- Artificial turf impacts to be studied in the EIR should include but are not limited to:
 - Impact of the eventual removal , replacement and disposal of the artificial turf, when it reaches the end of its lifespan;
 - Toxic and safety impacts relating to artificial turf and its infill, including but not limited to heavy metals, volatile organic compounds, carcinogens, asthma triggers, bacterial growth and infection risk (including MRSA);
 - Since the selection of artificial turf manufacturer is not known at this time, an evaluation of all of the artificial turf products on the market at this time.
 - The migration of infill material from the site by wind, leaching, sewer overflow , and through shoes and clothing.
- Climate change impacts to be studied in the EIR should include but are not limited to:
 - Artificial turf installation;
 - Urban heat island effect;
 - Loss of natural grass, plants and trees.
- Loss of park use for a wider variety of users should be studied in the EIR, including but not limited to:
 - Reduction of general recreation uses, including but not limited to kite flying, individual exercise, picnicking, sun-bathing, bird-watching, concerts, dog exercise, nature walks, enjoyment of darker skies at Ocean Beach, astronomy, and any sport activity that requires a stake (for example, volleyball, croquet, footbag/hacky sack with a net.)
- Potential inconsistencies with City planning documents should be studied in the EIR, including but not limited to:
 - The San Francisco General Plan
 - The Golden Gate Park Master Plan

Alternative construction methods for natural grass playing fields

- Alternative field construction methods.
 - The EIR should explore various types of field construction that will result in a safe, consistent, long-wearing, natural-grass playing surface. This can be done by studying other fields that are successful and introducing new methods of field construction and maintenance, including but not limited to:

- Investigation of natural grass playing fields throughout the US and internationally;
- Investigation of state of the art drainage systems ;
- Soil improvement methods to ameliorate compaction and promote root growth;
- Introduction of synthetic fibers into the soil to promote strong grass roots, decrease maintenance, and improve playing time;
- Investigation of lawn grass species that use less water and are suited to a park-like setting;
- Investigation of water-efficient irrigation systems ;
- The impact of utilizing the forthcoming PUC recycled water project for Golden Gate Park to irrigate natural grass;
- Investigation of subsurface water –storage systems for irrigation purposes;
- Investigation of efficient maintenance methods;
- Gopher control methods, including but not limited to:
 - Increase in the habitat for gopher predator species, such as the Great Blue Heron or the red-tailed hawk, currently seen hunting at the fields;
 - Gaps in the fencing to allow access by coyotes and other wingless predators;
 - Gopher barriers buried in the ground, such as chicken wire or other barriers;
 - Gopher repellent added to the irrigation system;
 - Gopher trapping – either by staff or contracted out.

Alternative designs for the project

- The EIR should explore alternative designs that preserve the natural meadow and forest feeling of the area, including but not limited to:
 - Investigation of minimal low-level lighting for the parking lot that is keyed to motion activated sensors that people, not animals, can trigger;
 - Investigation of designs that can create seating areas that are not bleachers, can be used for games, and look like natural parkland the rest of the time;
 - Elimination of the rectilinear sidewalk that surrounds the field and other elements that destroy the park-like feeling for the area;
 - Investigation of more effective public transport to the fields, such as bringing a bus line into the park or providing a bus stop on the Great Highway, to avoid expansion of the parking lot;
 - Restriping of the parking lot for efficient traffic flow without expanding the lot;
 - Planting of trees in the parking lot to further disguise its purpose;
 - Using grass in the parking lot to promote a park-like atmosphere, for example in grass-pavers or using fibers mixed into the soil to promote soil strength;
 - Evaluating the major events that will take place along the Great Highway and Golden Gate Park and the impact on traffic in Golden Gate Park and the availability of parking for the project and for these events, if the fields are developed.

Alternative field locations

- The EIR should explore other locations that can be improved or used as fields, including but not limited to:

- Fields listed in the "2008 Clean & Safe Neighborhood Parks Bond " that can be improved ;
- Fields in areas listed in the Bond book as closer to large numbers of children than the project;
- Fields not listed in the Bond, but for which City Fields Foundation or other funding might be used or found;
- Fields associated with schools, resulting in the dual benefit of improving school field use and locating fields near where children are already located;
- Public property that could be developed as fields; for example, newly acquired property, property that should be targeted for appropriation, tops of parking garages, new redevelopment areas, sections of larger parks such as Sharp Park, unused streets, or empty lots in various areas of San Francisco.

NPS HALS Documentation - Level I

- The Historic American Landscapes Survey (HALS) mission is to record historic landscapes in the United States and its territories through measured drawings and interpretive drawings, written histories, and large-format black and white photographs and color photographs. The National Park Service oversees the daily operation of HALS and formulates policies, sets standards, and drafts procedural guidelines in consultation with the American Society of Landscape Architects (ASLA). The ASLA provides professional guidance and technical advice through their Historic Preservation Professional Practice Network. The Prints & Photographs Division of the Library of Congress preserves the documentation for posterity and makes it available to the general public.
- The EIR should include a full documentation of the site, using the National Park Service, HALS (Historic American Landscape Survey) methodology, and documenting at a Level I status, for significant American Landscapes.
- This documentation should in no way be construed to replace preservation of the historic context and value of the site.

CONCLUSION:

We are looking forward to the inclusion of the above issues and other related issues in the EIR, so that the resulting project can be the most beneficial for preserving the beauty and historic context of Golden Gate Park, as well as providing a safe playing field for the City's children.

In addition, we remain very interested in the steps that will be taken in the development of the EIR and the pursuit of this project. We request that the Department notify us and the people copied on this letter about the Department's plans at this time and throughout the EIR process.

Thank you for your consideration.

Sincerely,

Katherine Howard
Member, Steering Committee
SF Ocean Edge

cc:

Mark Buell, President, Recreation and Park Commission
Margaret McArthur, Secretary, Recreation and Park Commission
Dan Mauer, Project Manager, Recreation and Park Department
Parks and Recreation Open Space Committee, San Francisco (PROSAC)
Don Lewis, MEA, San Francisco Planning Department
City Fields Foundation
Fisher Family

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Libby Benedict, Friends of Rossi Park
Kelley Watts, Francisco Heights Civic Association
Nancy Wuerfel, Golden Gate Park Preservation Alliance

October 13th, 2010

TO: Mr. Bill Wycko, San Francisco Planning Department

FROM: Les Hilger, Chair, PROSAC

RE: EIR Case # 2008.0091E, Westside Recycled Water Project

At its October 5, 2010 meeting, the Park Recreation Open Space Advisory Committee (PROSAC) unanimously approved the following resolution presented to the Recreation and Park Commission:

"PROSAC wishes to express its strong concern that there is a proposal to locate the Westside Recycled Water Treatment Plant on land within Golden Gate Park."

Also at that meeting, individual members of PROSAC requested that the following comments and issues be included in the scoping for the EIR on this project:

- The proposed recycling plant project in Golden Gate Park does not comply with the Western Shoreline Area Plan and the Recreation and Open Space Element of the General Plan. Therefore, members request that other locations for the recycling plant be found.
- The City Charter Section 4.113 states that "No park land may be sold or leased for non-recreational purposes, nor shall any structure on park property be built, maintained or used for non-recreational purposes, unless approved by a vote of the electors." If any parkland is considered for this project, members request the Charter requirement be complied with before proceeding with this project.
- The City Charter Section 4.113 states that "No building or structure, except for nurseries, equipment storage facilities, and comfort stations, shall be erected, enlarged or expanded in Golden Gate Park or Union Square Park unless action has been approved by a vote of two-thirds of the Board of Supervisors." If Golden Gate Park is considered for this project, members request that the Charter requirement be complied with before proceeding with this project.
- Harding Park Golf Course will be irrigated with tertiary recycled water. One thousand acres of Golden Gate Park is proposed to be irrigated with the more expensive reverse osmosis water, instead of the tertiary recycled water, along with toilet needs at the Academy of Sciences. Members ask about the environmental impact to produce this high cost, energy intensive, reverse osmosis water for use on about nine hundred acres of non-sensitive irrigation sites and for commercial purposes.
- The proposed site in Golden Gate Park for the treatment plant is over four acres, yet the plant will occupy one acre. Members ask that any plans for future expansion of this plant must be identified now so that the cumulative effects and restrictions of the initial proposal may be determined in the EIR.
- Members oppose the visitor's center proposed to be built with treatment plant as it is in conflict with the existing visitor's center at the Beach Chalet Restaurant and with other proposed recreational uses for the Western end of the park.



RESTORE HETCH HETCHY
YOSEMITE NATIONAL PARK

October 13, 2010

EXECUTIVE DIRECTOR

Mike Marshall

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FOUNDER

Ron Good

Bill Wycko
Environmental Review Officer,
San Francisco Westside Recycled Water Project
1650 Mission Street, Suite 400
San Francisco, CA 94103 - 2479

Dear Mr. Wycko:

The following are questions and comments that Restore Hetch Hetchy would like to have considered in the Environmental Impact Review of the proposed water recycling project in Golden Gate Park.

Location

The location of a public utility on land deliberately set aside as park land is a breach of the public trust. Public parks play a critical role in the health and well being of all residents of San Francisco. We urge the Planning Department to explore the following issues when deciding the merits of placing the proposed project in Golden Gate Park:

- Starting with the construction of O'Shaughnessy Dam in Yosemite National Park, evaluate the long term environmental impact of all San Francisco public utility projects built within or bordering on federal, state or county/city parks. Specific focus should be given to the variance between projected impacts versus actual impacts.
- Evaluate the potential impact of the proposed project on the local native plant and animal population.
- Evaluate the potential impact construction and operational noise of the project on the quality of individuals experience in the park.
- Evaluate the potential impact of construction and operational automotive traffic on air quality, noise abatement, plant and animal life and recreational activity both inside and outside the park.
- Evaluate the potential impact of any potential future expansion of the current proposal.
- Evaluate the potential impact of injecting the recycled water produced into the aquifer in order to meet State of California requirements to be used for potable purposes.

www.hetchhetchy.org

PO Box 565, San Francisco, California 94104-0565 * 415.956.0401

Contributions to Restore Hetch Hetchy are tax deductible to the extent allowed by law.

Cost

Although cost should not, by itself, be considered within the EIR process, the proposed project is extremely expensive and therefore it is reasonable to assume it will shift resources from other important environmental priorities. We urge the Planning Department to explore the following issues:

- Evaluate the potential impact of less extensive and less expensive water recycling processes on plant and animal life within Golden Gate Park.
- Evaluate the potential impact the cost of this project will have on other efforts to reduce withdrawals from the Tuolumne River.
- Evaluate the potential impact the cost of this project will have on efforts to improve the Hetch Hetchy watershed in Yosemite National Park.
- Evaluate the potential impact the cost of this project will have on efforts to reduce per capita water consumption in the City and County of San Francisco.
- Evaluate the potential impact the cost of this project will have on efforts to increase groundwater recharge throughout the City and County of San Francisco.
- Evaluate the potential impact the cost of this project will have on efforts to increase the use of groundwater throughout the City and County of San Francisco.
- Evaluate the potential impact the cost of this project will have on efforts to capture and store rainwater throughout the City and County of San Francisco.
- Evaluate the potential impact the cost of this project will have on efforts to reduce the demand for imported water supplies as compared to other potential wastewater reclamation projects, not only in San Francisco but also in other Bay Area cities served by the SFPUC. Discuss whether funding for this project could be used to fund more cost effective projects, including those in other Bay Area cities served by the SFPUC.

Thank you in advance for your consideration of these serious concerns.

Sincerely,



Mike Marshall
Executive Director

San Francisco Tomorrow

October 13, 2010

Environmental Review Officer
San Francisco Planning Department
1650 Mission Street
San Francisco, CA 94103

Re: EIR Scoping Comments for Water Treatment Facility in Golden Gate Park

San Francisco Tomorrow suggests the following areas for study in the EIR to be prepared for the Water Treatment Plant proposed for the west end of Golden Gate Park:

Open space gained. Removal of the former plant resulted in a net gain of open space for the people of the City. Building an entirely new industrial use at this site, and seeking to justify it simply because there had been a treatment plant there thirty years ago, should be studied for what it is: a taking, or removal, of four acres of public open space from Golden Gate Park.

The zoning is “P” for Public. But the designation also became “OS” for Open Space when the former treatment plant was shut down and removed. The use proposed, however, is an industrial use, and were it not for the fact that the proponent is a public agency, it would not be permitted in a “P” zone and would not conform to the Planning Code. If the proponent were a private agent, the industrial use proposed would not be considered, even by conditional use, in a P or OS zoning district.

This is a brand new use, not a renovation or restoration. This is not a rehab or restoration of a former use; the former use had been shut down thirty years ago and the defunct plant removed twenty years ago. The present application should be treated *de novo*, without reference to a once and former use; it should be treated as an entirely new use without precedent.

The Golden Gate Master Plan opposes it. The Golden Gate Master Plan envisions a combination of storage and recreation on this site: a much smaller log storage area (.75 acre, if needed) or a reforestation area (if log storage is not needed). The Plan sees the possibility of a new recreational use on this site, a fifth soccer field. A new industrial use is specifically discouraged. Thus, the EIR must consider that the Golden Gate Park Master Plan must be changed in order to accommodate this use.

Other sites for a Water Treatment Plant exist. PUC has rejected the study of other sites. The EIR should require that other viable and feasible sites (no straw dogs) should be considered as alternatives to the project which would locate the plant outside Golden Gate Park. One Alternative should study a small plant added to the Westside Treatment Plant. Another Alternative should study converting a portion of the underused zoo parking lot as a plant site

Other plans for water management by the PUC. This proposal should be studied as part of a Master Plan for water treatment and water management in the City and in the Bay Area. Is there currently such a plan? Yes or no, there should be a study of the total subject of tertiary water treatment in this region, as the PUC plans to implement it.

This is actually a four-acre site. The PUC will control a four-acre site by MOU agreement with Recreation and Parks. Recreation and Parks will have a monetary stake in this arrangement. The present plan utilizes only one acre. No mention is made of the use of the other three acres. CEQA specifically prohibits serial projects. i.e. the “piecemealing” of projects into several parts for sequential environmental study. This EIR should study, at minimum, the entire four-acre site; the EIR should not be pursued on the basis of one-quarter of the site. PUC and DRP must reveal what is planned for the remainder of the site. If they do not know at this time what they want to use it for, they should be required to do a master plan for the entire site with time-specific phases as needed, or else limit their proposal to the one-acre site.

Programmatic Document. This is a project level EIR based on a Programmatic Document approved in 2008. Must scoping questions be limited to where this project is located and how it will be used?

Different levels of treatment according to application. Do we need RO for Lincoln Park, Presidio Golf Courses, as well?.

Piping plan. A plan should be developed for this study which shows where streets will be torn up, and for how long. Further, what will be the impact on neighborhood, traffic and transit?

Natural setting. Study impacts on flora and fauna, particularly frogs, snakes, and lizards

Lights: type of lights, height of light standards, all-night security lighting, nightly duration of lighting, all eventualities should be studied.

Emissions: aerial emissions of gases, etc.

Noise: daytime noise, night-time noise

Odors: emissions of odors, noxious and obnoxious.

Fencing, need for security. There should be full disclosure of the type of fencing which will be needed. Fencing should be studied because it effectuates the removal of open space from access by the public.

Certain types of uses have a high need for security, that is, to deter the possibility of tampering with the public water supply. Would there need to be double fencing or fencing with razor wire? A facility with high risk for tampering has negative impacts on the use of open space by the public.

Aesthetics. The formidable nature of an industrial use, illuminated all day and night and surrounded by formidable fencing, should be shown in graphic renderings which do not beautify this use. There must be drawings prepared which show: the full site plan of the four acres; elevations from all sides, not just the street view; there must be sections which show the height above and below grade at the worst case; there must be a landscape plan which shows the site within its park context.. There should also be renderings which show the visual character of the project in its immediate setting with the Murphy’s windmill and the landmark Millwright’s cottage as they will be restored in the near future. These renderings should not, however, take the place of the needed technical drawings referred to above.

Sincerely yours,

Jennifer Clary, President
San Francisco Tomorrow



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CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

October 12, 2010

Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA, 94103
carrie.dovzak@sfgov.org

RE: Scoping Comments for the Westside Water Recycling Facility EIR

Dear Mr. Wycko:

The Sierra Club is concerned about the location of the Westside Water Recycling Facility within Golden Gate Park.

We ask that the environmental review include the investigation of 'alternatives' to this project, including alternative locations, a bio- and eco-friendly alternative, a 'natural' alternative, and an alternative that is completely within the guidelines of the existing Golden Gate Park Master Plan.

For the project and each alternative, we ask that there be an analysis of energy costs, for construction, operation and maintenance, and that the costs of each alternative be compared to one another. The project and each alternative should be evaluated for its ability to be reliable in the face of a natural or un-natural, man-made event---earthquakes, sea surges and tsunamis, electrical outages, terrorists attacks, etc.

1. Alternative Locations: The alternative locations should be reasonable alternatives, e.g., closer to the Oceanside Treatment Plant or closer to the large golf courses where the recycled water will be used, the Presidio and Lincoln Park golf courses.

The EIR should fully explore the advantages of these alternative locations. An alternative location may have existing parking/infrastructure for the facility and its proposed visitor center.

As examples, placing the proposed recycling plant closer to the Oceanside Treatment Plant might mean less distance of water pumped, including any brine disposal pipeline back to the treatment plant. Placing the facility near Lake Merced may provide special environmental advantages to make the lake more independent of weather-associated water reductions. These two should not be the only examples.

2. Bio and Eco Friendly Alternative: The lakes at the western end of Golden Gate Park are all filling in with vegetation and soil. As a bio- and eco-friendly alternative that will result in improving the health and vitality of the Westside Aquifer, which then can be a more reliable water source for both drinking and irrigation, the EIR should the possibility of restoring these lakes and expanding them significantly. This bio- and eco-friendly alternative should be part of an integrated watershed management plan for the entire Westside Basin.

The EIR should evaluate the Aquifer and determine what might be the parameters to sustain it for irrigation needs in addition to potential draws for potable water. The EIR should investigate

whether there can be or need to be additional compensations for the additional draws, by increasing replenishment of aquifer from rainwater and treated run-off wherever possible.

There also should be an analysis of possible problems of pollutants in the Aquifer and what steps might be necessary to protect the Aquifer from these pollutants. [See below, Alternative #3]

The obvious advantage of such a “natural” system is that drawing from nature’s own reservoirs avoids the environmental impacts and costs associated with highly technological recycled water that is purified using reverse osmosis. There is no dependence on sophisticated filtration, energy-requiring filtration systems and energy-expensive filters.

The Proposal includes construction of a “Visitor Center”. Since there should be no new buildings in constructed in Golden Gate Park, the bio- and eco-friendly alternative should explore a display on the ground floor of the Beach Chalet, in the north end, where a tourist shop used to be, that could be used to explain how water cycles naturally.

Generally, the public complains of the lack of comprehensive planning at the level of the government. This alternative should be evaluated as to whether it can be an exemplary ‘Integrated Watershed Management Plan of Westside Basin’.

3. Natural Alternative: The natural alternative should focus on the repair, restoration and improvement of the Westside Aquifer, minus the expansion of the Golden Gate Park lakes. It should include a full exploration of the originally planned irrigation system for Golden Gate Park of recycling water using the Aquifer water, water that is recycled via the naturally occurring soil and sand that exists under the Park. This natural alternative should include calculations of the Aquifer’s rehabilitation possible with the removal of hardscape areas described in the Golden Gate Park Master Plan. It should include an analysis of the replenishment benefits to the Aquifer that will come from replacing paving in Golden Gate Park with permeable paving or permeable paver systems.

Like the bio- and eco-friendly alternative, there should be an analysis of possible problems of pollutants in the Aquifer and what steps might be necessary to protect the Aquifer from these pollutants. There should be an analysis of the short and long-term benefits of the protection of the Aquifer from pollutants. It should include instituting runoff systems within the Park’s roadways, parking lots and other locations of impenetrable surfaces that can protect the Aquifer from pollutants. It should include the construction of other, added runoff systems in key locations throughout the Sunset District in the region of the Westside Aquifer to protect the Aquifer further.

The environmental analysis should evaluate how this alternative avoids seasonal inefficiencies of the proposed irrigation uses---landscape irrigation is needed when there is little rain---and how it can allow a constant source of water from the Aquifer, which can be highly efficient in terms of energy costs and reliable.

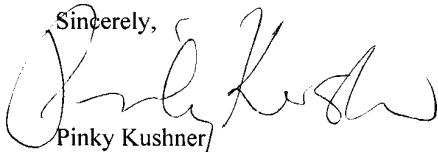
This alternative should also explore a display on the ground floor of the Beach Chalet, in the north end, where a tourist shop used to be, to explain for visitors how water cycles naturally.

4. Zoning/planning-compliant alternative: The proposed project is at odds with the Golden Gate

Park Master Plan and the city's General Plan. Both documents call for the western end of Golden Gate Park to remain as open space and naturalistic. This alternative should be a facility that is completely underground, with recreational uses on top and with the preservation of the naturalistic environment.

Finally, the EIR should investigate the growth-inducing potential for this project. To be sufficient, the analysis of population growth should include projections of traffic increases, energy need increases, and the seemingly inevitable expansion of hardscapes, loss of open space and threats to native flora and fauna that accompanies human development in California.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pinky Kushner', written over a printed name.

Pinky Kushner
Executive Committee
San Francisco Group
1362 6th Avenue
San Francisco, CA 94122
415 731-9486

Cc: Becky Evans, Chair, Executive Committee, San Francisco Group
Arthur Feinstein, Chair, Conservation Committee, San Francisco Group
Eric Mar, Supervisor, City and County of San Francisco

Tuolumne River Trust

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John Woolard

October 13, 2010

Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA, 94103
Fax: (415) 558-6409

Re: Case No. 2008.0091E – San Francisco Westside Recycled Water Project – Notice of Preparation of an Environmental Impact Report

Dear Mr. Wycko:

Thank you for the opportunity to submit scoping comments on the Westside Recycled Water Project (the Project).

The Tuolumne River Trust (the Trust) appreciates the SFPUC's attempts to incorporate more recycled water into San Francisco's water portfolio. As a condition of the Phased WSIP approved in October 2008, the SFPUC committed to capping water sales at current levels until at least 2018 in order to eliminate the need for increasing diversions from the Tuolumne River. To stay under the cap, the SFPUC committed to reducing demand for potable water in San Francisco by 10 million gallons per day (mgd). This 10 mgd would break down into 4 mgd of water conservation, 4 mgd of recycled water and 2 mgd of groundwater.

Impacts on the Tuolumne River

Currently, 60% of the Tuolumne River is diverted for human uses (48% by the Modesto and Turlock Irrigation Districts and 12% by the SFPUC). As a result, the salmon population has crashed from historic highs of 100,000 fish to just 280 last year. Recycled water could benefit the Tuolumne River by reducing our reliance on diversions, allowing more water to flow through the River for the benefit of fish and wildlife, water quality and recreation.

The Trust would like the EIR to explore whether the Project would result in better flows for fish and wildlife, water quality and recreation. Please study the impacts of the Project on:

- 1) The stretch of the Tuolumne River between O-Shaughnessy Dam and New Don Pedro Dam; and
- 2) The Tuolumne River downstream of New Don Pedro Dam.

Cost of Recycled Water

Reverse Osmosis

The Trust has concerns about the cost of the Project due to its reliance on reverse osmosis. The primary reason given for using reverse osmosis is to reduce the amount of salts that might harm salt-sensitive plants and aquatic animals in Golden Gate Park.

The Trust would like the EIR to explore ways to eliminate the need for reverse osmosis in order to bring down the price of recycled water and make it more financially viable. This might include transitioning Golden Gate Park to more salt-tolerant plants. We would like the EIR to include a list of the salt-sensitive plants and a map of their locations.

Alternative Projects

The Trust would like the EIR to explore alternative projects in partnership with BAWSCA, or one or more of its member agencies, to bring more recycled water online outside of San Francisco, but within the Hetch Hetchy service area, that might yield more recycled water at a cheaper price. Through such a partnership, San Francisco would receive credit toward its 10 mgd goal for reducing potable water use.

Of particular interest to the Trust is the possibility of using recycled water to recharge the South Westside Groundwater Basin as part of the Regional Groundwater Storage and Recovery Project. The purpose of this project is to further the use of the Groundwater Basin as an underground storage reservoir by storing water in the basin during wet periods for subsequent recapture during dry periods. During wet years, the SFPUC would deliver surface water from the Tuolumne River to its wholesale customers so that they would not need to pump groundwater, allowing the aquifer to recharge.

In our scoping comments on the Regional Groundwater Storage and Recovery Project, the Trust stated:

“In response to CDFG’s request that “SFPUC consider all other potential options for meeting increased customer demand,” the EIR for the Groundwater Storage and Recovery Project should study the potential for using stormwater runoff and/or recycled water to enhance the recharge of the groundwater basin. This would enable a higher sustainable rate of groundwater use in normal and wet years, thus reducing or eliminating increased diversions from the Tuolumne River.”

Because the South Westside Groundwater Basin extends from northern San Mateo County to the Westside of San Francisco, this water could be used in both counties, making it an ideal project for partnership.

Cost Comparisons

The cost of water diverted from the Tuolumne River will increase as a result of the \$4.6 billion Water System Improvement Program (WSIP). Other factors that will affect pricing are reductions in available water due to climate change, the Federal Energy Regulatory Commission's (FERC) relicensing of New Don Pedro Dam that will likely require increased flows in the Lower Tuolumne, and other environmental regulations. The Project EIR should compare likely future costs of surface water to recycled water.

Another reason why recycled water is currently more expensive than surface water is because surface water often is treated as a free resource (we pay for infrastructure and delivery, but not necessarily for the water itself). However, there are many hidden costs of water diversion, often referred to as externality costs, which are borne by communities and industries that depend on healthy fisheries, such as commercial fishers, restaurants and markets, that have lost income in recent years due to the collapse in fish populations. Communities that are impacted by degraded water quality and businesses that depend on healthy river flows for recreation also pay a price for current practices.

The EIR for the Project should attempt to incorporate externality costs into the price of Tuolumne River water to enable a fair cost comparison with recycled water.

Again, thank you for receiving our comments.

Sincerely,



Peter Drekmeier
Bay Area Program Director

ted bamberger <theo4theo@gmail.com>
10/13/2010 06:31 PM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
Comment on the public meeting Sept 23 from an "interested party"

Ocyober 13, 2010
San Francisco Planning Department
Ms Carrie Dovzak:

Thank you for the opportunity to learn about the proposed Water Recycling Plant: Some observations based on the first hour of public comment and your:

(A) I worry that as worthwhile as such a plant will be, the taking of existing park land (your Figure (1) on page 2 of the 19 page NOP) would set a precedent that would invite other good causes to try to carve space away from the recreational use for which the park was intended..

My concern is based on my assumption that the space required for the new facility would exceed the boundary of the former Richmond-Sunset WPCP

(B) Who will suffer from the loss of such square footage? Soccer players? Even finding space in the GG Park that could be made to be used as a soccer field does not compensate, in my mind. Some other good purpose could suffer the loss, like detaching from another sport or just the loss of wooded land. How about replacement of lost park-use land by buying it or receiving as are placement thru a donation from outside the GG Park? Compensation to replace what was used by the SF Westside Water Recycled Water Project.

(C) The Planning Dept did identify once the abbreviations, llke Environmental Impact Report. (EIR) But I needed a separate glossary of all these same abbreviations when I read them again in later pages. Please help the stranger understand bureaucratic language.

Offered with respect and appreciation,

Theodore E. Bamberger

+

1238 Hayes Street,
San Francisco, CA 94132
holly.barbare@gmail.com

RECEIVED

October 8, 2010

OCT 13 2010

Bill Wycko
San Francisco Planning Department
1650 Mission Street
Suite 400
San Francisco, CA 94103

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
RECEPTION DESK

Dear Mr. Wycko:

My interest in the Proposed San Francisco Westside Recycled Water Project is as a resident of San Francisco. With the draught conditions in the past few years, we were all asked to conserve water, so I am very aware of the increasing demand for potable water. However, parkland very valuable for an urbane areas, like San Francisco. Golden Gate Park provides recreation for residents from all over the City, and is a popular attrition for visitors.

Alternatives that I would like to see considered include:

- No Build Alternative.
 - o Have all measures been implemented to reduce the water requirements of San Francisco? Irrigation and lake-fill are cited as primary uses for the treated recycled water. What measures could be implemented to reduced these water requirements?
- Constructing the facility on land not within Golden Gate Park. Open space is more valuable if it is contiguous with other open space. As a resident, I would be willing to see the cost of the project increase (a reasonable amount) in order to acquire non-parkland, if it meant that land located within Golden Gate Park (the proposed site) could be reclaimed for recreation and open space. What options are available for constructing on non-parkland?
- Constructing a facility that is entirely underground. This would logically provide a greater area to be used for recreation, and would minimize the visual impact of having man-made buildings within the park.

Impacts that I would like to see considered include:

- Land use compatibility. The September 8, 2010 NOP stated that the proposed site is compatible with current and previous land use as a treatment facility. However, how compatible is this with surrounding land uses and designated land uses?

Bill Wycko
Page 2
October 8, 2010

- Recreation. As previously stated, Golden Gate Park provides a natural area for City residents. I would like to see recreation impacts analyzed in terms of:
 - o Area of park accessible to the public.
 - o Area of park with a natural setting characteristic. (The value of the recreational area could be reduced by constructing a significant structure in an area designated to be reclaimed as open space.)

I don't think I am ^{a lone} ~~along~~ in wanting to see as much of Golden Gate Park returned to a natural setting as possible. Hopefully with forethought and planning we can meet our City's water needs without compromising parkland.

Sincerely,



Holly Barbare

Cc: Golden Gate Park Preservation Alliance

*JEAN B BARISH, ESQ.
711 27TH AVENUE
SAN FRANCISCO, CA 94121
JEANBBARISH@HOTMAIL.COM*

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OCT 13 2010

CITY & COUNTY OF S.F.
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October 13, 2010

BY FACSIMILE: 415-558-6409 and Hand Delivery

Mr. Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

**Re: EIR Case # 2008.0091E
Westside Recycled Water Project**

This is in response to the September 8, 2010, Notice of Preparation for the Environmental Impact Report for the referenced water treatment project. The NOP states that the proposed for the recycled water treatment facility is located within Golden Gate Park within the site of the former Richmond-Sunset Water Pollution Control Plant. I am writing to request that the following issues be addressed in the EIR for this project.

Location:

- Please identify all the locations considered for the proposed facility, and who participated in the selection process.
- Please identify all criteria used to determine the suitability and acceptability of every location considered for the proposed facility.
- Please explain why all locations that were deemed unacceptable for the proposed facility were so deemed.
- According to the Golden Gate Park Master Plan, approved in 1998, the area in Golden Gate Park that is being considered as the location for the proposed facility was designated for recreational uses. Please explain why, despite this stipulation in the Master Plan, the proposed site for the facility is in Golden Gate Park.
- According to the NOP, the preferred site for the proposed facility was changed from the Oceanside Water Pollution Control Plant (WPCP) to the site within Golden Gate Park. Please explain why the location of the site was changed, and any role the San Francisco Department of Recreation and Park or any other City, State, or Federal agencies played in the decision to change the site of the proposed facility.

Design:

- According to the current Golden Gate Park Master Plan, if a facility of this type were to be built in this area the Recreation and Park Department requires that it be completely underground, with recreational uses on top of it. Please explain why, despite this mandate in the Master Plan, the proposed facility will include a 40,000 square foot building that will rise up to 30 feet above ground.
- Please disclose all alternative designs that were considered for the proposed facility, including designs for a facility that is entirely underground, as well as an above-ground facility that has a smaller footprint.

Environmental Impacts:

- Golden Gate Park is described in the National Register for Historic Places as pastoral, with recreation areas that blend into that setting. Please discuss all the ways in which the proposed facility will have an adverse impact on the historic integrity of Golden Gate Park, including but not limited to the historical significance of nearby City historical landmarks such as the Murphy Windmill and the associated Millwrights Cottage.
- Please discuss all impacts the proposed facility will have on the aesthetic experience of Golden Gate Park, including but not limited to the visual impact of a large building, and the presence of trucks and maintenance equipment at the site of proposed facility.
- Please discuss how construction of the facility will impact the immediate and adjoining parkland, as well as the area outside Golden Gate Park adjacent to the facility and within the construction site.
- Please discuss the impact of the proposed facility on the viability wildlife and plant life in and around Golden Gate Park.

Safety:

- Please discuss all issues related to possible contamination of ground water caused by the project.
- Please discuss all issues related to exposure of plants, wildlife, and humans to water treated by the facility.
- Please discuss all risks to the project and the environment related to natural and man-made disasters, including but not limited to earthquakes, tsunamis, terrorism and industrial accidents.

Mr. Bill Wycko
October 13, 2010
Page 2

Other Considerations:

- The City has announced plans to install over six acres of artificial-turf soccer fields and 60 foot lights in Golden Gate Park just north of the proposed plant site. Please discuss all cumulative impacts of the referenced project and these proposed soccer fields, including but not limited to the combined impact of these two projects on the removal of parkland, contamination of the underlying ground water, the presence of artificial night lighting, aesthetic impacts, historical impacts, and increased traffic in this region of Golden Gate Park.
- Please discuss the impact on Golden Gate Park and the surrounding should the City decide that it needs to significantly increase the processing capacity of the water treatment plant.
- Please discuss the economic impact of the project, including but not limited to consideration of less expensive alternatives.

Thank you for your consideration of the above issues. I look forward to their inclusion in the Environmental Impact Report. Please keep me informed of all steps that will be taken in the pursuit of this project, and notify me by email and US Mail as this project goes forward.

Sincerely,

Jean B Barish, Esq.

bonnie baron <bbaron1@gmail.com>
10/10/2010 08:53 AM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
Water Treatment Facility in Golden Gate Park

Dear Ms. Dovzak:

I have recently learned about the plans to locate buildings for a water treatment plant in Golden Gate Park and am particularly concerned that the buildings are placed above ground. Doesn't the Golden Gate Master Plan specify that any buildings be underground?

Sincerely,
Bonnie

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SEP 28 2010

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

September 26, 2010

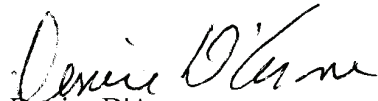
Mr. Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Dear Mr. Wycko:

Ask anyone what their vision of a park is and you will get the answer: trees, grass, wildlife, lakes. All this with un-obstruction by building and other jarring reminders of our industrial society.

It appears that the western part of Golden Gate Park will house a treatment plant accompanied by roads, parking and lighting. This is not what parks are for. Please put this plant elsewhere and save our precious park for the use intended.

Sincerely,



Denise D'Anne
351 Guerrero St.
San Francisco, CA 94103

Suzanne Dumont <zangsfl@gmail.com>
10/09/2010 07:34 PM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
proposed water treatment plant in GGP

Dear Mr. Wycko,

I am requesting that you insure that the GGP Master Plan is honored and that no water treatment plant above ground be placed in GGP. There is no good reason for it to intrude on the park that is so much needed for people and wildlife.

I look forward to hearing your report that will protect GGP for generations to come.

Sincerely,
Suzanne R. Dumont



SAN FRANCISCO PLANNING DEPARTMENT
Public Scoping Meeting
San Francisco Westside Recycled Water Project
 September 23, 2010

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OCT 06 2010

CITY & COUNTY OF S.F.
 PLANNING DEPARTMENT
 M E A

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

Name (please print): Catherine Ehr + José Quinteiro
 Affiliation (if applicable): _____
 Phone: 415 397 5329 Email: cath@quinteiro.org
 Address: 711 48th Ave
 City, State, Zip: SF CA 94121

COMMENTS

See attached.

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department,
 1650 Mission Street, Suite 400, San Francisco, CA 94103
 Fax: (415) 558-6409 Email: carrie.dovzak@sfgov.org

For more information on the SFPUC's project, contact Suzanne Gautier, SFPUC Communications Division, sgautier@sflower.org and 415-554-3204

Catherine Ehr & José Quinteiro
711 48th Ave
San Francisco, CA 94121

October 4, 2010

VIA U.S. MAIL & E-MAIL

Mr. Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: Public Scoping Meeting, San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

We are very concerned about the SFPUC's plan to build a secondary-to-tertiary standards waste treatment plant in Golden Gate Park. While we support the concept of using recycled water for such non-potable uses as watering Golden Gate Park and the Lincoln Park and Presidio Golf Courses, based on the information that the SFPUC has provided, we oppose this project based on the proposed location within Golden Gate Park.

Page 4 of the Revised Notice of Preparation states that, "The site is currently used by the San Francisco Recreation and Parks Department for park maintenance and storage." Immediately following that statement, the document says, "This location was selected because of...the compatibility of project land requirements with the current and previous land use as a treatment facility." These statements are contradictory. Many citizens, still residents of the area, worked very hard about 15 years ago to close the former treatment facility, and are under the impression that there is no current treatment at the site. Additionally, as outlined in the attached December 9, 2009 letter authored by the Audubon Society regarding proposed artificial turf at the nearby Beach Chalet soccer fields, <http://home.earthlink.net/~sfoceanedge/sitebuildercontent/sitebuilderfiles/audubon.pdf>, this use is inconsistent with City of San Francisco's General Plan, the Recreation and Open Space Element, and the Golden Gate Park Master Plan.

- Why is the SFPUC proposing to put a new chemical process plant at a site that many local citizens worked hard to close?
- Why can't treatment to tertiary standards occur at the existing Oceanside plant? Why is this location more feasible than the original 2008 proposal to use the existing Oceanside plant to fully treat the water?
- Is the proposed facility compatible with the City's General Plan and the Golden Gate Park Master Plan?
- Were alternate sites considered and why they are no longer under consideration?

Per the publicly available project descriptions, the secondary effluent arriving at the proposed water treatment facility contains suspended solids and biological components. Treating this effluent will produce a "concentrated brine solution" and require "coagulant, acid and base, and other chemicals."

- What safeguards will be instituted to prevent issues associated with hazardous chemicals at the

site, and during delivery and handling?

- What is in the brine besides salt and water, which will ultimately be discharged into the ocean?
- Is any of the waste hazardous, and if so, what protective measures will be put into place?

What will be the impact of leaks at the facility and on the pipeline as the incompletely treated water is pumped along Ocean Beach?

- What measures are included in the project to prevent, reduce and mitigate spills and resulting issues?
- Are Ocean Beach and/or Golden Gate Park at risk of contamination or closure in the event of discharges?
- Will the current groundwater well in the park, which this plan proposes will provide drinking water to the surrounding neighborhoods, potentially be contaminated?

General concerns are:

- What are the lighting requirements? No lighting is represented on any publicly available drawings.
- What are the proposed noise levels? The eight 150-hp distribution pumps, operations traffic, maintenance vehicles, and trucks delivering materials or removing waste, etc. will generate noise.
- Coagulants, acids, bases, and chlorine are typically delivered by truck. Has the increased traffic load for chemical deliveries, as well as operating and maintenance needs, been evaluated?

The proposed site is a 4-acre plot; current drawings show development on one acre, but don't show anything on rest of site – not the promised meadows, etc.

- What guarantees do we have that development will only be 1 acre and the remaining three acres will be retained for public use?

Current plans call for an annual average operating rate of 2.0mgd and a plant design capacity of 4.5mgd.

- Is the annual average rate expected to increase over time?
- Is there any anticipation of expansion or additional facilities at a future date?

In summary, we oppose the construction of a large-scale water treatment facility in Golden Gate Park, and we would ask that the SFPUC, SF Recreation & Park Department, and the City of San Francisco not compromise our beautiful park and our residential neighborhoods.

Thank you for your consideration of our concerns. Please feel free to contact us to discuss this matter at your convenience.

Sincerely,



Catherine Ehr & José Quinteiro
711 48th Ave
San Francisco, CA 94121 * 415-387-5328

barryeisenberg@comcast.net
10/05/2010 09:13 AM To
Suzanne Gautier <sgautier@sfgwater.org>
cc
jenclary@sbcglobal.net, Eric Mar <eric.L.mar@sfgov.org>,
carrie.dovzak@sfgov.org
bcc

Subject
Re: Proposed Westside Recycled Water Project

Hi Suzanne,

You may remember me from the community presentation held in early September at the Senior Center at 37th Ave in Golden Gate Park. I was out of town for the followup scoping meeting but at the meeting I did attend I expressed the strong viewpoint that, while the aims of the water recycling project are laudable, the purification facility should not be built in the park. It belongs on surplus zoo property adjacent to the Oceanside Treatment Plant, which proposal, I was told, had long ago been nixed by the zoo itself, apparently not wishing to cede potential parking space for the use of the water project. Since the zoo itself exists on city land and is in large part subsidized by city funds, and since furthermore there is land there that is not under landmark protection, it makes no sense that the SFPUC apparently accepted their objection at face value and let this far more environmentally friendly location slip from view without further investigation.

On the part of myself as well of Jennifer Clary of SF Tomorrow and Peter Warshaw of the Sierra Club (I make no claim to represent their own points of view--simply that they were interested in this aspect of the proceedings), a query was posed: Just what was the procedure by which the zoo managed to exclude its turf from consideration as the site for the purification facility and why should not the available acreage at the zoo be put back into the mix as the location for the facility, which does not belong in the park and in fact contravenes every known mandate on development within the confines of this sylvan preserve?

I am expecting a previously promised detailed review from you, as requested in writing at the meeting, of the process (or lack thereof) whereby this decision excluding the zoo area from siting possibilities was arrived at. This critical decision should be reviewed, reopened and reversed before the SFPUC and the Planning Dept moves forward on the project.

Barry Eisenberg
731-2939

----- Original Message -----

From: "Suzanne Gautier" <sgautier@sfgwater.org>
To: "Barry Eisenberg" <barryeisenberg@comcast.net>
Sent: Monday, October 4, 2010 1:27:55 PM
Subject: Proposed Westside Recycled Water Project

It has come to my attention that the link provided in the previous e-mail is not working. Please find the NOP and Scoping Presentation at the link

below:

http://sfwater.org/mto_main.cfm/MC_ID/13/MSC_ID/377/MTO_ID/570

djeldred@earthlink.net
10/12/2010 12:20 PM
Please respond to
djeldred@earthlink.net To
carrie.dovzak@sfgov.org
cc

bcc

Subject
Westside Recycled Water Project

The EIR process regarding the Westside Recycled Water Project in Golden Gate Park MUST be fully transparent, complete and AND accountable to an included public.

This is an Industrial Development in Park Land. It is NOT ACCORDING TO GOLDEN GATE PARK MASTER PLAN.

Why is this project being located in Golden Gate Park?
What was the selection process that was followed?
What other locations were considered? Why were they rejected? Who defined the criteria for rejection?

.
The Golden Gate Park Master Plan states that IF a treatment plant were built in this location, the plant would have to be completely underground with recreation uses on top.
Why isn't the SFPUC following the guidance of this plan?

Planning Department EIR should include:

An analysis of all possible factory locations in San Francisco
A redesign with the building completely underground with recreational uses on top of it,
An analysis of the impact of alternative locations for the pipelines from the Oceanside plant to Golden Gate Park and other parkland.
Full impact reporting should account for wildlife, vegetation, local community, traffic, noise, lighting, long term Park usage, construction guide lines, time lines, system cost financing analysis, operational costs analysis, risks

And finally - Outreach and direct two way dialogue with the public!
Answering questions!

Sincerely

David Eldred

Steve Estes <stevesestes@hotmail.com>
10/05/2010 09:59 AM To
<carrie.dovzak@sfgov.org>
cc

bcc

Subject

October 5, 2010

Ms. Carrie Dovzak and Mr. Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: Public Scoping Meeting, San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

As a resident of San Francisco, who lives on the north side of Golden Gate Park and who surfs often at Ocean Beach, I am very concerned about the SFPUC's plan to build a secondary-to-tertiary standards waste treatment plant in Golden Gate Park. While I support the concept of using recycled water for such non-potable uses as watering Golden Gate Park and the Lincoln Park and Presidio Golf Courses, based on the information that the SFPUC has provided, I oppose this project based on the proposed location within Golden Gate Park. Many questions remain unanswered, and I hope that a transparent, thorough EIR process will provide answers to some of the following points:

Why is the SFPUC proposing to put a new chemical process plant at a site that many local citizens worked hard to close?

Why can't treatment to tertiary standards occur at the existing Oceanside plant? Why is this location more feasible than the original 2008 proposal to use the existing Oceanside plant to fully treat the water?

Is the proposed facility compatible with the City's General Plan and the Golden Gate Park Master Plan?

Were alternate sites considered and why they are no longer under consideration?

What safeguards will be instituted to prevent issues associated with hazardous chemicals at the site, and during delivery and handling?

What is in the effluent brine that will be produced, besides salt and water, which will ultimately be discharged into the ocean? Is any of the waste hazardous, and if so, what protective measures will be put into place? What will be the impact of leaks at the facility and on the pipeline as the incompletely treated water is pumped along Ocean Beach?

What measures are included in the project to prevent, reduce and mitigate spills and resulting issues?

Are Ocean Beach and/or Golden Gate Park at risk of contamination or closure in the event of discharges?

Will the current groundwater well in the park, which this plan proposes will provide drinking water to the surrounding neighborhoods, potentially

be contaminated?

In summary, I oppose the construction of a large-scale water treatment facility in Golden Gate Park, and we would ask that the SFPUC, SF Recreation & Park Department, and the City of San Francisco not compromise our beautiful park and our residential neighborhoods.

Steve Estes
4708 Fulton St.
San Francisco, CA 94121

October 13, 2010

Re: San Francisco Westside Recycled Water Project; Project Case No. 2008.0091E;
scoping comments

Ms. Dovzak:

I realize that some of these issues are noted in the Notice of Preparation but please indicate the degree of removal of pharmaceutical products from the effluent by the RO/UV process.

Please identify alternate sites outside of Golden Gate Park including those which have been discarded and why.

Please evaluate the impact on amphibian species, specifically in Golden Gate Park, which may be affected by the recycled water.

Please indicate the volume of recycled water which will be used on golf courses.

What plans exist for future recycled water facilities in San Francisco?

Thank you,

Rebecca Evans
1474 Sacramento St., #305
San Francisco, CA 94109

rebecae@earthlink.net

DAVID FERGUSON <ddferg@sbcglobal.net>
09/18/2010 02:27 PM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
Water treatment/recycle plant plans for GG Park

I was an active volunteer and activist for the Golden Gate Park Master Plan during the preliminary and later stages and have commented on its enactment continuously for 30 years.

With regard to the proposed plant:
The Master Plan specifies that this area of the Park be returned to recreational use and if any building is done that it be underground. The current proposal violates this point.

Another location for this plant should be explored outside of the Park.

Additional lighting for this area would be a violation of the Master Plan.

This area should be for supporting wildlife and recreation only and not for industrial uses.

Who are the ignorant parties who have pushed this location and why do they want to use this area in violation of the hard and long gestated Golden Gate Park Master Plan?

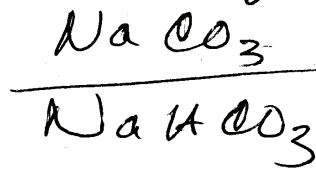
Can we citizens and park users help you find a better and legal way to build this plant if it is really necessary?

David Ferguson
2442 Great Highway
SF 94116

13th Oct. '2010

Memo: To Carrie Duszak, Planning Dept. contact
From: Richard Jones, SPRAD Advisory Board
Re: Revised N.O.P. Westside Recycled Water.

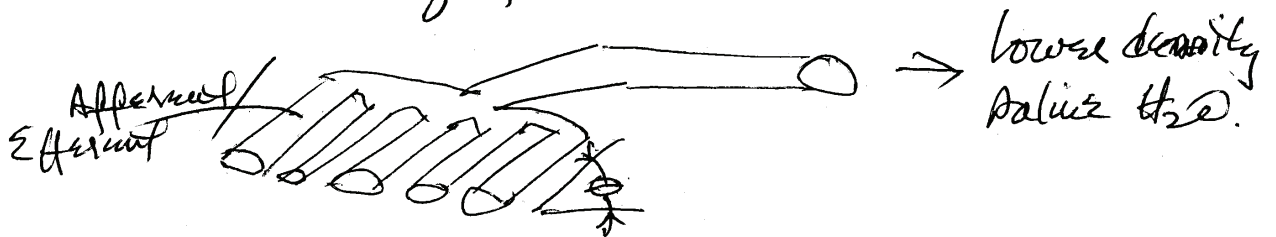
Subjects: 1) Project empowers "decarbonization of recycled water." Consider if carbonate buffer based capacitance is utilized in controlling hydrogen ion (pH) ~ 7



in agreement, including the lowering of various Acids (overall)

2) RO Reverse osmosis only H₂O for later recommended aeration through water fountains at each site where feasible.

3) Saline project: recommend the application of Fisher "extractor" method drawing of oceanic water.



Thank you.

RECEIVED

OCT 13 2010

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
RECEPTION DESK

Wayne Hiroshima <jichanhiroshima@hotmail.com>
10/05/2010 07:06 PM To
<carrie.dovzak@sfgov.org>
cc

Subject
San Francisco Westside Recycled Water Project

October 5, 2010

Mr. Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

I recently became aware of the plan for SFPUC to build a secondary-to-tertiary standards waste treatment plant in Golden Gate Park. My understanding is the recycled water will be used for watering Golden Gate Park as well as Lincoln Park and Presidio Golf Courses. I am a native (born and raised) of San Francisco and my children and now our grandchildren enjoy the benefits of the Golden Gate Park and Ocean Beach. I also am a surfer and have seen how the ocean has become polluted since the 1960's. I definitely applaud the forward thinking of this plan, but also have a few questions.

I am not sure where the city is in the process, but I strongly wish to encourage the city to take the necessary time required to produce a thorough EIR. I would ask that you please take into consideration finding answers to the following concerns:

Why can't treatment to tertiary standards occur at the existing Oceanside plant? If this is not a possibility, propose alternate sites to be considered and approved by the residents of San Francisco.

Is any of the waste hazardous, and if so, what protective measures will be put into place?

We live in earthquake country, what will be the safeguards against leaks and spillage due to an earthquake?

What will be the impact of leaks at the facility and on the pipeline as the incompletely treated water is pumped along Ocean Beach (I have witness leaks at Ocean Beach and Linda Mar Beach over my years of surfing)?

Will the current groundwater well in the park, which I understand this plan proposes will provide drinking water to the surrounding neighborhoods, potentially be contaminated?

At this time, without a thorough EIR, I am opposed to the construction of a large-scale water treatment facility in Golden Gate Park, and would ask that the SFPUC, SF Recreation & Park Department, and the City of San Francisco not compromise our beautiful park and our residential neighborhoods.

Sincerely,
Wayne Hiroshima
1216-4th Avenue
S.F., CA 94122

LDY <harris.rose@att.net>

10/12/2010 05:04 PM

Please respond to

harris.rose@att.net To

carrie.dovzak@sfgov.org

cc

sgautier@sfgwater.org

bcc

Subject

Comments on West Side Water Treatment Plant

I am sending these comments on behalf of Martha Hoffman, 1750 Waller Street, San Francisco 94117. For a return address my email can be used which is 2ferally@att.net

I spoke at the Scoping Meeting on 9/30/10 to oppose the building of the West Side Water Treatment Plant at the West end of Golden Gate Park. I would have been involved in the process earlier but did not know of the plans to build the plant. I was told at that meeting that people surrounding the affected area had been carefully notified. If there are issues regarding major projects in Golden Gate Park all San Franciscans should be notified. The park belongs to all of San Francisco and every citizen should be notified regarding projects of this kind.

I spoke regarding one of my main concerns which is the well being of wildlife in the park. Wildlife in San Francisco has a difficult time surviving. The West end of Golden Gate Park is a critical area of habitat and safety for wildlife in San Francisco. The building proposed would displace habitat and wildlife and would have an extremely detrimental effect. There needs to be an alternative site found outside of the park. This proposed site would be extremely detrimental to San Francisco's wildlife in the park and in turn affect the quality of life of all San Franciscans.

Martha Hoffman

1750 Waller Street

San Francisco CA 94117

jason jungreis <jasonjungreis@gmail.com>
10/05/2010 10:49 AM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
comments re GGP water recycling plant proposal

October 5, 2010

Mr. Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: Public Scoping Meeting, San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

We are very concerned about the SFPUC's plan to build a secondary-to-tertiary standards waste treatment plant in Golden Gate Park. While we support the concept of using recycled water for such non-potable uses as watering Golden Gate Park and the Lincoln Park and Presidio Golf Courses, based on the information that the SFPUC has provided, we oppose this project based on the proposed location within Golden Gate Park. Many questions remain unanswered, and we hope that a transparent, thorough EIR process will provide answers to some of the following points:

Why is the SFPUC proposing to put a new chemical process plant at a site that many local citizens worked hard to close?
Why can't treatment to tertiary standards occur at the existing Oceanside plant? Why is this location more feasible than the original 2008 proposal to use the existing Oceanside plant to fully treat the water?
Is the proposed facility compatible with the City's General Plan and the Golden Gate Park Master Plan?
Were alternate sites considered and why they are no longer under consideration?
What safeguards will be instituted to prevent issues associated with hazardous chemicals at the site, and during delivery and handling?
What is in the effluent brine that will be produced, besides salt and water, which will ultimately be discharged into the ocean?
Is any of the waste hazardous, and if so, what protective measures will be put into place?
What will be the impact of leaks at the facility and on the pipeline as the incompletely treated water is pumped along Ocean Beach?
What measures are included in the project to prevent, reduce and mitigate spills and resulting issues?
Are Ocean Beach and/or Golden Gate Park at risk of contamination or closure in the event of discharges?
Will the current groundwater well in the park, which this plan

proposes will provide drinking water to the surrounding neighborhoods, potentially be contaminated?

General concerns are:

What are the lighting requirements? No lighting is represented on any publicly available drawings.

What are the proposed noise levels? The eight 150-hp distribution pumps, operations traffic, maintenance vehicles, and trucks delivering materials or removing waste, etc. will generate noise.

Coagulants, acids, bases, and chlorine are typically delivered by truck. Has the increased traffic load for chemical deliveries, as well as operating and maintenance needs, been evaluated?

The proposed site is a 4-acre plot; current drawings show development on one acre, but don't show anything on rest of site - not the promised meadows, etc. What guarantees do we have that development will only be 1 acre and the remaining three acres will be retained for public use?

Current plans call for an annual average operating rate of 2.0mgd and a plant design capacity of 4.5mgd. Is the annual average rate expected to increase over time? Is there any anticipation of expansion or additional facilities at a future date?

In summary, we oppose the construction of a large-scale water treatment facility in Golden Gate Park, and we would ask that the SFPUC, SF Recreation & Park Department, and the City of San Francisco not compromise our beautiful park and our residential neighborhoods.

Thanks.

Jason Jungreis and Robyn Lipsky
527 47th Avenue
San Francisco, CA 94121
415-750-0830

"Steve Lawrence" <splawrence@sbcglobal.net>
09/10/2010 09:42 AM To
<bill.wycko@sfgov.org>, <carrie.dovzak@sfgov.org>
cc
<bpalacios@sfgov.org>
bcc

Subject
SF Westside Recycled Water

Mr. Wycko and Ms. Dovzak:

You and Planning are preparing a draft EIR for SF Westside Recycled Water. Please consider asking and answering the following questions:

1. Will the product smell? To people? To park animals? Will that smell be off-putting to either people or animals? If so to animals, which; how will the Park flora and fauna change?
2. Will the recycled plant be shut down at times when product is not needed (perhaps during winter rainy season, especially during wet winters)? If so, how is that done? Are lines cleaned out to prevent smell and gas formation? With recycled water or potable? To the sewer?
3. By channeling treated wastewater from Oceanside, less will be discharged through the outfall. It is my understanding that too little is being discharged now so that sand infiltrates, and accumulates in the discharge outfall. I do not know the details, but perhaps this tends to occur during summer when sand is higher, and when there will be more demand for recycled water, thus exacerbating the unfortunate occurrence. This will likely require more attention. Cleaning the outfall perhaps disturbs residents of the marine sanctuary. The effect of diverting from Oceanside should be considered.
4. How much energy will be used to obtain the Westside recycled water? Now there is to be pumping from Oceanside, filtration at the plant, reverse osmosis, and then UV (and perhaps chemical treatment (peroxide?) as well (with chemical delivery and storage issues?), then pumping product to points of use, some quite distant and uphill, such as Presidio and Panhandle. How much greenhouse gas will all this pumping emit? Storage is also part of the journey, although the provided storage seems small; does this add significantly to energy consumption? Is the electricity from Hetchy (cheap) or from PG&E (expensive)? Will power be drawn more during the day, when watering may be needed, or can it be drawn at night when surplus power generation capacity can be used?
5. How many employees are needed to run the new plant during days, and what impact will they have on the Park and traffic? It would seem they are more in need summers, when the Park is more crowded; then, winters they may not be needed, or may take vacations due to less work; but they will be there at a more unfortunate time, summers. How many parking spaces, etc? Also, is it cost effective to hire for part-of-year usefulness?
6. Recycled water used for irrigation will percolate down into the water

table below. That is slated to be pumped as groundwater. Of course there is the question of how that groundwater, which is to be used for drinking, will be affected. Will pharmaceuticals leach in and become a problem? Other contaminants?

7. Recycled water will add to SFPUC's staffing, and probably Park & Rec's. It must be produced. Questions will inevitably arise about whether it is safe or detrimental to some aspect of the Park (and possibly other venues where it is used). It will be tested, as perhaps will the groundwater be for pharmaceuticals and all. Communications will do more outreach, especially if there is any smell. Warning signs will litter the Park ("we're good/green; but don't drink"). How many more FTEs are needed to accomplish recycled water; worth it?

8. The projected demand to be satisfied is once again reduced, now from 2 mgd to 1.6 mgd; that is, 1.6 mgd annual average recycled water is expected to be produced, with up to 4.5 mgd delivered at peak times during the summers. The project cost is up another \$30 million to \$156 million. While SF recycled water is now considered holy water and priceless, may I be so bold and irreverent as to ask whether it is still worth paying a price that to some seems exorbitant for a product that seems troublesome, considering what other good things might be done with \$156 million?

I understand that many of the above are obvious and certainly doubt they are new questions. I am concerned that recycled water is holy water, and, given that, even obvious questions will not be treated as they should be--objectively, scientifically, and not shorted. In all that you do, please guard if you can against succumbing to the political windstorm. Thank you.

Steve Lawrence

mendy marks <mendelam@comcast.net>
10/05/2010 07:42 AM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
Waste Treatment in Golden Gate Park

Mr. Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

RE: Public Scoping Meeting, San Francisco Westside Recycled Water
Project

Dear Mr. Wycko,

We are very concerned about the SFPUC's plan to build a secondary-to-tertiary standards waste treatment plant in Golden Gate Park. While we support the concept of using recycled water for such non-potable uses as watering Golden Gate Park and the Lincoln Park and Presidio Golf Courses, based on the information that the SFPUC has provided, we oppose this project based on the proposed location within Golden Gate Park. Many questions remain unanswered, and we hope that a transparent, thorough EIR process will provide answers to some of the following points:

Why is the SFPUC proposing to put a new chemical process plant at a site that many local citizens worked hard to close?

Why can't treatment to tertiary standards occur at the existing Oceanside plant? Why is this location more feasible than the original 2008 proposal to use the existing Oceanside plant to fully treat the water?

Is the proposed facility compatible with the City's General Plan and the Golden Gate Park Master Plan?

Were alternate sites considered and why they are no longer under consideration?

What safeguards will be instituted to prevent issues associated with hazardous chemicals at the site, and during delivery and handling?

What is in the effluent brine that will be produced, besides salt and water, which will ultimately be discharged into the ocean?

Is any of the waste hazardous, and if so, what protective measures will be put into place?

What will be the impact of leaks at the facility and on the pipeline as the incompletely treated water is pumped along Ocean Beach?

What measures are included in the project to prevent, reduce and mitigate spills and resulting issues?

Are Ocean Beach and/or Golden Gate Park at risk of contamination or closure in the event of discharges?

Will the current groundwater well in the park, which this plan proposes will provide drinking water to the surrounding neighborhoods,

potentially be contaminated?

General concerns are:

What are the lighting requirements? No lighting is represented on any publicly available drawings.

What are the proposed noise levels? The eight 150-hp distribution pumps, operations traffic, maintenance vehicles, and trucks delivering materials or removing waste, etc. will generate noise.

Coagulants, acids, bases, and chlorine are typically delivered by truck. Has the increased traffic load for chemical deliveries, as well as operating and maintenance needs, been evaluated?

The proposed site is a 4-acre plot; current drawings show development on one acre, but don't show anything on rest of site -- not the promised meadows, etc. What guarantees do we have that development will only be 1 acre and the remaining three acres will be retained for public use?

Current plans call for an annual average operating rate of 2.0mgd and a plant design capacity of 4.5mgd. Is the annual average rate expected to increase over time? Is there any anticipation of expansion or additional facilities at a future date?

In summary, we oppose the construction of a large-scale water treatment facility in Golden Gate Park, and we would ask that the SFPUC, SF Recreation & Park Department, and the City of San Francisco not compromise our beautiful park and our residential neighborhoods.

Yours truly,

Mendy Marks

1552 Ninth Ave

San Francisco, Ca.94122

October 12th, 2010

Mr. Bill Wycko
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Subj: EIR Case # 2008.0091E
Westside Recycled Water Project

I request that the following issues be addressed in the Environmental Impact Report on the Case noted above:

Potential Adverse Environmental Impacts:

(1) Is the proposed water treatment plant consistent with the historical integrity of Golden Gate Park as cited in its nomination for inclusion in the National Register for Historic Places? Will the plant degrade the historical significance of nearby City historical landmarks such as the Murphy Windmill? Furthermore, what will be the cumulative impact of the plant on the historical integrity of the area and of Golden Gate Park, if the City proceeds with its announced plans to install over 6 acres of artificial turf soccer fields and 60 foot lights in the Park just north of the proposed plant site?

(2) Will the proposed water treatment plant adversely impact the aesthetic experience and recreational opportunities of the western end of Golden Gate Park? Once again, please consider the cumulative impact of the plant combined with the probable City plans for artificial turf soccer fields and night lighting, noted earlier. In specific, please address the impact of fencing, walls and roadways on the ability of park users to enjoy the unique juxtaposition of park and seaside. Will the treatment plant affect visitor's enjoyment of the Murphy Windmill or the associated Millwrights Cottage?

(3) What will be the impact on the area and on Golden Gate Park in the future if the City decides that it needs to significantly increase the processing capacity of the water treatment plant? Will additional parkland need to be taken over for plant extensions? How will this impact the connection between the Park and Ocean Beach? If such expansions are not contemplated, how will the City deal with future expansions of processing capacity?

(4) I understand that the output of the treatment plant will be used for watering Golden Gate and other City Parks. Will this water, or any of its contents, end up in the underground aquifer? Will that aquifer be used as a source for human water consumption? Please identify all residual impurities likely to remain in the final output of the treatment plant – including hormones and other drugs. Please evaluate the possible long-run risks to human, wildlife, and plant health arising from the long-run accumulation of impurities in the aquifer.

Potential Mitigations:

Please address the possibility of using a combination of lower building height together with landscape berms of sufficient height to completely mask the water plant buildings and associated infrastructure from the sight of Park visitors in adjacent areas of the Golden Gate Park.

Please keep me informed on this project, both by email and by US Mail.

Greg Miller
1243 42nd Avenue
San Francisco, CA 94122

howmiller@earthlink.net



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

September 23, 2010

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

Name (please print): ISABEL MOLLOY
Affiliation (if applicable):
Phone: 415 933 6633 Email:
Address: 459 - 33 RD AVE
City, State, Zip: S. F. 94121

COMMENTS

Please consider and analyze thoroughly the alternative of putting the water treatment facility underground - if it should come to the undesirable choice of location at Golden Gate Park. Thank you, Isabel Molloy

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 Fax: (415) 558-6409 Email: carrie.dovzak@sfgov.org

For more information on the SFPUC's project, contact Suzanne Gautier, SFPUC Communications Division, sgautier@sfgwater.org and 415-554-3204

2945 Ulloa St.
San Francisco, CA 94116
October 13, 2010

Bill Wycko
San Francisco Planning Department
1650 Mission St, Suite 400
San Francisco, CA, 94103

Re: Case No.2008.0091E San Francisco Westside Recycled Water Project
Notice of Preparation, Sept. 8, 2010

Dear Mr. Wycko:

I concur that there is a need to use recycled water as the primary water source for irrigation and other non potable uses in Golden Gate Park, Lincoln Park and the Presidio Golf Course and the deYoung Museum. I also agree that the site selected for the treatment plant seems appropriate. In as much as the site is an undeveloped part of the park and the site of the old Richmond Sunset Sewage Treatment Plant it serves limited use for the public. It seems the Recreation and Park Department does not have the resources to improve this part of the park, so though this proposal is not consistent with the Golden Gate Park Master Plan, it can help move the goals of that plan forward..

Though I fully support the concept of the plan, I do have concerns and comments. I think the scale of the Notice of Preparation (NOP) is too limited. Though the plan is to build a recycled water treatment plant for the sites mentioned above, the NOP should anticipate the need for expanded use of recycled water in the western part of the City. One obvious customer should be the Department of Public Works for irrigating parkways like Sunset Blvd., Park Presidio and Sloat Blvd. The Recreation and Park Department should use recycled water on the western side of the Great Highway. Golden Gate National Recreation Area should be encouraged to use recycle water for Sutro Heights Park and any other elements of the developed area in the general vicinity of the Cliff House. Of course there are other small parks and public buildings that should utilize recycled water for irrigation, flushing toilets and for purposes other than drinking water. Though none of those uses may be feasible immediately, the NOP and the subsequent Environmental Impact Report (EIR) should anticipate the amount of water that may be used for such purposes and the EIR should assess impacts of increasing the capacity of the recycled water plant and the placement of a delivery system to other potential users.

The EIR should discuss the matter of heavy metals (specifically copper, chromium, zinc, lead, cadmium, mercury) and other material that survives the reverse osmosis treatment system. It should present a clear and transparent accounting of materials that can survive the treatment process and of their potential impact on plants both native and non native, wildlife including insects and amphibians, public health and the aquifer. It is very important that the EIR discuss the potential impact of treated water on fish and other organisms including vertebrates and invertebrates that support the food chain in the lakes in Golden Gate Park. This is an area that has been overlooked in many if not all previous EIRs.

Alternatives to the proposed buildings with a height of 20 to 30 feet should be considered. Reducing building height would have the benefit of reducing visual impacts on the surrounding parklands and on-site landscaping. The plan to include an interpretive center is a good one and should not be dropped from this plan. It is critical that this plant not only serve the purpose of recycling water, but also for enhancing the appearance and habitat value of the park, and teaching the public about the need for using recycled water and the need for developing new sources of water not only for our parklands, but our home gardens as well.

The EIR should discuss the placement of infrastructure. Distribution pumps should be placed underground if possible. If that is not possible, they should be placed where it will not be necessary to remove trees or other significant habitat elements of the park. When considering the placement of distribution pipelines it should be made clear that the pipelines will not block or create an obstacle to the movement of

underground streams or watercourses. Though I am not aware of any such features, I do realize that in the past streams were undergrounded as San Francisco was developed. Considering the present trend to daylight buried streams when possible, it is necessary to consider this issue and route pipelines in such a way that potential future conflicts will not arise.

The EIR should discuss the impacts on ocean life at the discharge site for concentrated brine solution. An environmental assessment should specifically cover impacts on bivalves and the various organisms that feed on them. There may be a need to dilute the discharge and there may be a need to have multiple discharge sites.

The NOP mentions permits that will be required. It seems this project should also require a permit from the California Coastal Commission since it seems to involve construction within the Coastal Zone. It may also require a permit from the US Department of Fish and Wildlife Service because of its proximity to the wintering area for Western Snowy Plover, a species protected by the Endangered Species Act.

The EIR needs to discuss lighting as a potentially significant issue. Since the project specifications do not call for light towers and will use fixtures and structures which reduce the amount of light into the sky or surrounding parklands, the issue may be much less serious than lighting at the nearby soccer fields. Still, the impact on wildlife, particularly impacts on migratory birds, birds that nest nearby, and nocturnal animals, particularly bats, should be assessed.

Thank you very much for the opportunity to comment on this NOP. If you have any questions I can be reached at murphsf@yahoo.com.

Very truly yours,
Dan Murphy

Cc: Suzanne Gautier

RECEIVED

Richard A. Navarro
355 Hazelwood Ave.
San Francisco, CA. 94127

OCT 13 2010

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
RECEPTION DESK

San Francisco Planning Department
Attn: Bill Wycko, Environmental Review Officer
SF Westside Recycled Water Project
1650 Mission Street, Suite 400
San Francisco, CA. 94103

October 11, 2010

Dear Sir:

I would like to register my opposition to the placement of the proposed water treatment facility at the west end of our Golden Gate Park. I support the preservation of our precious open space and the preservation of Golden Gate Park as an open space park, not for buildings, increased traffic and other commercialization projects. The park is now under siege by various interests which see the park as a commercial opportunity. This is clearly evident in the Bandstand, museum, and California Academy of Science areas, and the hosting of mass concerts and events for commercial interests.

The 1998 Golden Gate Master Plan is a modest attempt to salvage what remains of what was once one the country's great parks. The building of the Water Treatment plant in the park continues the deterioration of our once wonderful park, as designed by our great forefathers.

I don't oppose the construction of the treatment plant, but I oppose it's location in the park. We need to do all we can to preserve the integrity of what remains of Golden Gate Park. Little by little it is heading toward oblivion as a real park.

Thank you,



Richard A. Navarro DDS, MS.

From: Carrie.Dovzak@sfgov.org
Sent: Thursday, September 23, 2010 3:15 PM
To: Alisa Moore; Cherie Kolin
Cc: rcort@rmcwater.com
Subject: Fw: Proposed Westside Recycled Water Project

See below.

----- Forwarded by Carrie Dovzak/CTYPLN/SFGOV on 09/23/2010 03:14 PM -----

"Gautier,
Suzanne"
<SGautier@sfgwater.org> To
"Dovzak, Carrie"
<Carrie.Dovzak@sfgov.org>
09/23/2010 02:56 PM cc
Subject
FW: Proposed Westside Recycled
Water Project

Carrie, I got this one today, looks like scoping comments to me. sg -----Original Message-----

From: John Odell [mailto:jodell@ccsf.edu]
Sent: Thursday, September 23, 2010 2:03 PM
To: Gautier, Suzanne
Cc: ggpa@earthlink.net
Subject: Re: Proposed Westside Recycled Water Project

Dear Ms. Gautier-

I am unable to attend this evening's "scoping session," but do wish to express my strong opposition to this project.

My beef is not so much with the PUC as with RecPark for agreeing to this travesty, but I have a number of objections directed at PUC.

Although your slick and glib handouts speak of the historic use of the proposed site as a water treatment facility, the Golden Gate Park Master Plan states, "The potential uses must be recreational or recreation serving and judged for their appropriateness to the site and the park."

A water treatment plant is not a recreational or appropriate use.

PUC has not made the case that the proposed Golden Gate Park location is the only one available. Your 2006 Master Plan lists a number of different locations, including the Fleishhacker site, that are far more appropriate than the Park

site. Given a compliant RecPark, this proposal may be the path of least resistance, but that should not be the main criterium for siting this plant. The proposal states that the footprint of this treatment plant will be one acre, and I can look at a GoogleEarth aerial and find several one-acre plots around the Oceanside facility. Locating the plant there should also remove the need for the proposed brine return pipeline.

Even if the park location were the only one available, the design and scale of the proposed building is totally inappropriate and, in my opinion, just plain ugly. A visitor center? Who are you kidding? As I'm sure PUC and RecPark well know, the Park Master Plan states that any such use must be completely underground and covered with parkland.

That's not exactly what's shown in the "conceptual rendering."

I also have reservations about the improvements proposed for the Richmond-Sunset site in order to make it a good deal for RecPark. Are these improvements an appropriate or legal use of Water Bond funds?

Third, the proposed pipelines through the Richmond district to irrigate two golf courses seem to me to be an expensive use of taxpayer/ratepayer funds to benefit a niche recreation activity. Will these pipelines eventually pay for themselves, and if so, how? Greens fees?

The west end of Golden Gate Park was envisioned by its designers to "...be simply treated as a woodland or forest, with all the hills and ridges more or less heavily timbered, and the valleys covered with lower-growing shrubs or field grasses..."

The area around the proposed site is home to many nesting birds -- including Red Tailed and Red Shouldered hawks -- and other wild animals.

The two-year construction project and subsequent activity will surely have a negative impact this native fauna.

I know you folks are well-meaning, but this proposal is egregiously out of whack with everything this area of the park was meant to be and should not be permitted to go forward.

Sincerely yours,

John Odell
115 Hoffman Avenue
San Francisco, CA 94114
415-282-0862

"Dennis O'Rorke" <daororke@aol.com>
10/10/2010 01:06 PM To
carrie.dovzak@sfgov.org, phil.ginsburg@sfgov.org,
recpark.commission@sfgov.org
cc
zangsfl@gmail.com, Pat Wiley <cummingsandgoings1@gmail.com>, Shawna McGrew
<sunsetfog@aol.com>, Marty & Fran Larkin <martythelark@aol.com>,
ggppa@earthlink.net, Diane Palacio <parkladydil@sbcglobal.net>
bcc

Subject
Proposed Water Treatment Plant- GGP

Decision makers,
NO new buildings in Golden Gate Park. NO new roads and NO new
lighting. Golden Gate Park was designed to be an "Oasis in the City",
a refuge from all of the above. Do not depart from that concept.

Dennis O'Rorke
1360 Mc Allister Street
San Francisco, California



SAN FRANCISCO PLANNING DEPARTMENT
Public Scoping Meeting
San Francisco Westside Recycled Water Project
 September 23, 2010

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

Name (please print): RICHARD ESTE PETERSON
 Affiliation (if applicable): HOMEOWNER
 Phone: 415-826-3921 Email: sfreptle@mac.com
 Address: 537 VALLEY ST
 City, State, Zip: SAN FRANCISCO CA

COMMENTS

IF SIERRA CLUB SEES SOMETHING IS UP,
ITS UP,

Richard Est Peterson

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department,
 1650 Mission Street, Suite 400, San Francisco, CA 94103
 Fax: (415) 558-6409 Email: carrie.dovzak@sfgov.org

For more information on the SFPUC's project, contact Suzanne Gautier, SFPUC Communications Division, sgautier@swater.org and 415-554-3204

Linda Shaffer <ljshaffer1@comcast.net>

10/13/2010 12:49 PM To
carrie.dovzak@sfgov.org
cc
ggppa@earthlink.net
bcc

Subject
Scoping for EIR/WSIP Westside Recycled Water Project

To: Mr. Bill Wycko, SF Planning Dept., 1650 Mission St., Suite 400,
SF CA 94102
From: Linda Shaffer, 1407 De Haro St., SF CA 94107

Dear Mr. Wycko:

This is a comment submitted as part of scoping for the EIR for the
WSIP Westside Recycled Water Project.

I very much like the proposal to plan for the use of recycled water
in city parks.

However, I am extremely concerned that the preferred alternative
seems to be to locate a recycled water treatment facility IN one of
our city parks (specifically, in Golden Gate Park).

Aside from very real legal issues related to possible violations of
both the City's General Plan and the GGP Master Plan, my concern is
simply that the city does not have enough useable park space as it
is. To take up any park space for this kind of facility would only
make the problem worse. Moreover, it would set a terrible precedent.

I understand that other sites were also considered as locations for
the treatment plant, but were rejected. I urge that all alternative
sites not located on city parkland be included in the EIR and be
thoroughly evaluated.

Thank you,
Linda J. Shaffer
Representative from District 10 serving on PROSAC
VP, California Native Plant Society, Yerba Buena Chapter

PS If, by virtue of having submitted a comment for scoping, I must
be sent a copy of the DEIR, I request that it be sent on CD, NOT hard
copy. Thank you.



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

September 23, 2010

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on October 13, 2010.

Name (please print): ROBERT VAN RAVENSWAAR

Affiliation (if applicable):

Phone: 415-221-7576 Email: rob.vanr@gmail.com

Address: 446 29TH AVE

City, State, Zip: SF CA 94121

COMMENTS

1) FIR shd show alternative placement at ^{Ocean side} ~~West side~~ Treatment Plant - tertiary treatment is a simple add-on for that facility. And include cost & staffing needs.

2) Need clarity on relation w/ groundwater plan (project description)

3) GGP Master Plan must be amended (land use)

This constitutes an amendment to the General Plan. or new individual use.

4) There is talk of some potable water coming from this - health issues must be examined in detail

CONTINUED ON BACK

directly or indirectly

Mail comments to: Bill Wycko, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 Fax: (415) 558-6409 Email: carrie.dovzak@sfgov.org For more information on the SFPUC's project, contact Suzanne Gautier, SFPUC Communications Division, sgautier@swater.org and 415-554-3204

George Wooding <Mother_ed@bigeds.com>
10/13/2010 04:52 PM To
carrie.dovzak@sfgov.org
cc

bcc

Subject
case# 2008.0091E

Dear Ms. Dovzak,

The PUC will be running at least three or four pipes through or near the Western Transport Tunnel underneath the great highway, north to south and south to north. Please have the EIR consider the impact of these pipelines on the coastal environment. Ocean Beach is slowly being washed away and eventually these pipes will either need to be relocated or protected with revetments or walls. Why is so much infrastructure being placed in an area that has already been declared a "disaster zone" on January 11th. The Great Highway is still not open and the ground surrounding the Lake Merced Tunnel was eroded within ten yards of the tunnel. It is not wise nor prudent to place these pipes in harms way.

Also...please have the EIR examine the alternative routes that were proposed in the December 2008 project NOP and the December 30th, 2009 project NOP. These routes were considered viable less than a year ago and we are now being told by the PUC that the Western Transport is the only viable route for waste water pipes.

Thank you for your consideration.

George Wooding
11Dellbrook Avenue
San Francisco, CA. 94131

415 695-1393

NANCY WUERFEL, 2516 23RD AVENUE, SAN FRANCISCO, CA 94116

RECEIVED

October 13, 2010

OCT 13 2010

Mr. Bill Wycko
San Francisco Planning Department
1650 Mission St., Suite 400
San Francisco, cA 94103

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
RECEPTION DESK

Re: EIR Case 2008.0091E SF Westside Recycled Water Project (revised project)

Dear Mr. Wycko:

Golden Gate Park (GGP) is a magnificently designed public park. Its primary physical asset is land. The concept of the western portion of the park was to provide open space for people, plants and wildlife to enjoy, not for industrial uses. Parks include people. Factories exclude people. Parks and factories have different long term needs. Parks need open spaces to stay undeveloped. Factories inevitably want to expand. There is a reason why major urban cities do not mix these two totally different functions together in one place - they are not compatible. I oppose the siting of a recycling plant in GGP. I support the use of recycled water for irrigation purposes.

- 1) San Francisco's 1995 charter (section 4.113) wisely recognized the importance of GGP by restricting its development and protecting its open space by requiring a vote of the Board of Supervisors (BOS) to approve building any new structures there, and by requiring a vote of the people to approve any long term, non-recreational structure on park property. This project should be required to be approved by both the BOS and the voters before moving forward.
- 2) The GGP Master Plan and the city's General Plan also confirmed the importance of preserving GGP land as open space and called for the removal of the earlier Richmond-Sunset sewer treatment facilities. The former use of GGP land for a sewer plant has been rescinded by current city policies. Enlightened urban planning still controls this open space and therefore GGP is not to be used for this industrial use. This project should be reviewed for compliance with the General Plan before moving forward.
- 3) Even the SFPUC's own PEIR for the WSIP acknowledged the importance of preserving cultural resources by stating on page 9-72 that potential impacts to "any identified cultural resources would be avoided to the extent feasible." The GGP is listed on the National Register of Historic Places and this project will have definite negative impacts on the park by changing land use and compromising its sylvan nature with a factory. This project should conform to the PEIR recommendations.
- 4) Also, the PEIR on page 4.3-20 states that "adverse impacts could occur if WSIP facilities...were not compatible with the surrounding uses or would result in the permanent displacement of an existing land use." The PEIR made an assumption that "WSIP projects on CCSF-owned land would not result in adverse effects on surrounding uses, as land conditions would remain similar." Obviously the PEIR did not consider using CCSF parkland for WSIP buildings! The land conditions of the surrounding uses for a recycling plant and those for the GGP were never

“similar” or compatible; thus, adverse impacts will occur if parkland is converted from recreational uses to industrial uses. Also, the WSIP facilities would result in the “permanent displacement of an existing land use” since the area would never again be available for recreational and open space purposes. This project should conform to the PEIR recommendations.

5) The siting of a recycled water treatment plant can go many places. GGP cannot move. It is one contiguous unit of land within our very crowded urban city that has its own plan and a purpose. This land may not be bifurcated to also serve the convenience of the SFPUC who changed its mind about housing a Westside Recycled Water Treatment Facility on its own property. Nor may this land be given away by its guardians - the Recreation and Park Department and its Commission. Only the elected BOS and the voters of SF may change what happens in and to GGP. The park is that well protected! The authors of the city’s charter made sure that a city department was not the last word in protecting and defending this most valuable asset, knowing that city departments may weaken in upholding their mission. The voters agreed with supporting the strongest possible control and oversight to development in GGP. The SFPUC should immediately identify suitable, non-park land on which to build a Westside water recycling plant so that the WSIP completion deadline of 2015 can be met.

6) The complete scope of the project is described in two NOPs: The groundwater supply development 2008.1122E NOP and this recycled water treatment plant development NOP. These two projects constitute the combined WSIP impact on the nature of the park and must be considered together. GGP will experience the additive effects of both projects, and so the EIR must consider the cumulative impacts both projects will bring.

7) Are there any best practices in the United States for using urban park land for industrial uses such as proposed in this project? If so, the EIR should research the recommendations.

8) What impacts will there be on the aesthetics of GGP if Homeland Security requires high level physical security protections around the water treatment plant to defend against a terrorist attack on the facility? Could Homeland Security close off access roads to the western end of the park to protect the plant? What danger could this facility pose to the general public, who use the park daily for recreation purposes, but who are unaware of the implications this plant may have as a “target?” The EIR must consider and evaluate the current Homeland Security requirements for safe keeping of essential infrastructure that includes this recycling plant.

9) What is the impact on the Great Highway of having four north-south pipelines required for this project: One pipe North from Oceanside Treatment Plant with secondary treated water to GGP, one pipe South with raw sewage from northern city sewers, one pipe South with tertiary or reverse osmosis water from GGP going to the zoo, and one pipe South with RO brine from GGP for discharge to ocean through Oceanside?

10) What is the effect of the brine water at the outfall site in the ocean on its ecology?

11) What are the environmental impacts of the original project description for Westside recycled water for project 2008.0091E, as described in the NOP dated 5/17/08, compared to the revised NOP dated 9/8/10? Since there is serious opposition to the GGP proposal that will delay the project at that site, the SFPUC should immediately reconsider the original 2008 proposal

with appropriate mitigations as a way to move forward with the recycled water project. Also, the 2008 project would eliminate the need for two new south running pipelines under the Great Highway.

12) What are the long term plans by the SFPUC for the GGP site? What type of expansion is envisioned for the treatment plant? Why does the SFPUC state that they will occupy a four acre site, when the building is just one acre? Does the SFPUC plan on occupying the entire site in the future? What are the impacts of any expansion proposals on the adjacent park uses to the plant? The cumulative impacts on GGP of the current proposal and the future site uses by the SFPUC should be known and quantified now, before this site is accepted.

13) Who are the proposed current customers and the possible future customers of the recycled water produced by this factory? What impacts are involved in developing the pipelines to reach the current and proposed customers?

14) If reverse osmosis water (RO) is used in GGP, what level of each type of pharmaceutical will be left in this water? How much of these pharmaceuticals will percolate into the aquifer? What will be the health effects to humans of consuming either the RO water directly, or via the aquifer?

15) Why is RO water to be used to irrigate all 1000+ acres of land in GGP (not just sensitive areas), when tertiary level recycled water is adequate for irrigation needs at Harding Park Golf Course? What is the number of acres in GGP that tertiary water could be used for irrigation purposes, instead of the RO ?

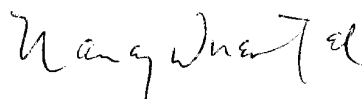
16) For both the groundwater project wells and the irrigation needs in GGP, both projects include pipe installations. Will the path design for the pipes be made by landscape and gardening professionals who will preserve the existing vegetation in GGP, or by engineers who are only connecting A to B? What is the impact of each type of designer on the GGP?

17) Will groundwater wells continue to be used to serve the needs of GGP, or will 100% of the groundwater be siphoned off to Sunset Reservoir? What effect will this have on GGP, if the park needs a backup system for irrigation?

18) What are the "lost opportunity costs" for recreation, wildlife, and open space uses because the available land in GGP was taken from park control for industrial uses? How can loss of land in an existing park ever be compensated for or mitigated?

Thank you for considering these comments.

Sincerely,



Nancy Wuerfel

Linda Yacobucci <2ferally@att.net>

10/12/2010 05:14 PM To

carrie.dovzak@sfgov.org

cc

sgautier@sfwater.org

bcc

Subject

Comments: West Side Water Treatment Plant

I spoke at the Scoping Meeting on 9/30/10 to oppose the building of the West Side Water Treatment Plant at the West end of Golden Gate Park. I think there was extremely poor outreach to San Franciscans about this project. I would have been involved much sooner if I had been aware of this project. I am again disappointed in PUC's and San Francisco Recreation & Park Departments lack of proper outreach to San Franciscans. This whole project smacks of a stealth deal with S.F. Recreation and Park department giving away public land to make money from the PUC.

I support the majority of the Coalition for San Francisco Neighborhoods position. In summary I support: an in depth exploration of alternative locations outside of Golden Gate Park. Also we don't need a tertiary process for water being used to irrigate plants; this is like watering plants with diamonds since the process is so expensive. Also what is the rationale for a Visitors Center, it is not needed.

I do not want a water treatment plant in Golden Gate Park or any park in San Francisco. Our parks are to provide open space to get away from the urban pressures and where wildlife can maintain habitat and be safe.

Linda Yacobucci

845 McAllister Street, Apt. C

San Francisco CA 94102

Mailing address:

P.O. Box 2067

Daly City CA 94017

APPENDIX A3

San Francisco Public Utilities Commission,
San Francisco Westside Recycled Water Project
Environmental Impact Report, Scoping Report,
September 2008

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San Francisco Public Utilities Commission
San Francisco Westside Recycled Water Project
Environmental Impact Report

Scoping Report

September 2008

Prepared for the San Francisco Planning Department

Prepared by ESA

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1.0 Introduction and Background

1.1 Introduction

The San Francisco Planning Department is the lead agency for implementation of California Environmental Quality Act (CEQA) requirements for all projects sponsored by the City and County of San Francisco or conducted within San Francisco. The San Francisco Planning Department is preparing a Draft Environmental Impact Report (EIR) for the San Francisco Public Utilities Commission's (SFPUC's) proposed San Francisco Westside Recycled Water Project (SFWRWP, or Project). The Draft EIR, which will assess the potential impacts of the SFWRWP on the physical environment, is being prepared in accordance with CEQA. CEQA requires the preparation of an EIR when a proposed project could significantly affect the physical environment.

As part of the Draft EIR process, the San Francisco Planning Department conducted a public scoping effort in June 2008, soliciting comments from interested parties, State and natural resource agencies, and the public to help determine the scope of the Draft EIR. This report describes the scoping process and summarizes the public and regulatory agencies' comments received during scoping.

1.2 Notice of Preparation

The San Francisco Planning Department published a Notice of Preparation (NOP) on June 5, 2008, announcing the preparation of the Draft EIR for the SFWRWP under CEQA. The NOP summarized the goals, objectives, and elements of the project description for the proposed SFWRWP. The NOP also described the scoping process and included information on the public scoping meetings. The scoping process, notification procedures, and outcome of the scoping meetings are described below, following a brief description of the SFWRWP.

1.3 San Francisco Westside Recycled Water Project

The proposed San Francisco Westside Recycled Water Project (SFWRWP) includes the construction of recycled water treatment, storage, and distribution facilities for recycled water customers located in west San Francisco. It would involve construction of a new recycled water treatment facility with an annual average production of approximately 2.0 million gallons per day (mgd) of tertiary treated recycled water at the Oceanside Water Pollution Control Plant (WPCP) in San Francisco. The new treatment facility would be located within the existing footprint of the Oceanside WPCP, in, and adjacent to the West Gate entrance and berm area. The Project would include construction of recycled water storage facilities, including the following: a new 1.5-million-gallon (mg) treated water reservoir at the Oceanside WPCP; expansion of the existing 2-mg underground reservoir in Golden Gate Park by approximately 2.0 mg; and a new 1.0-mg reservoir at Lincoln Park. The proposed distribution facilities would consist of pump stations at the recycled water treatment facility, the Golden Gate Park reservoir, and in Lincoln Park; approximately seven miles of new pipeline to connect the proposed reservoirs and pump stations to the recycled water treatment facility; and approximately five to six miles of new pipeline that

would branch off of the main distribution line to serve irrigation and commercial customers (e.g., Golden Gate Park and Stern Grove). The Project seeks to meet the level of service goals and system performance objectives of the SFPUC's proposed regional Water System Improvement Program (WSIP) by diversifying regional water supplies through the development of recycled water as an alternative water supply for non-potable uses.

2.0 Purpose of the Scoping Process

The purpose of the scoping requirement is to solicit input from the public, interested parties, and natural resource agencies on the appropriate scope, focus, and content of the Draft EIR. The San Francisco Planning Department will consider all of the input received during the scoping process in the preparation of the Draft EIR.

The Draft EIR will describe the existing environmental conditions of the area that could be affected by the proposed project and evaluate the potential effects of the SFWRWP on the environment in accordance with CEQA. The comments provided by the public and agencies during scoping will help the San Francisco Planning Department identify pertinent issues, methods of analyses, and level of detail that should be addressed in the Draft EIR. The scoping comments will also provide the basis for developing a reasonable range of feasible alternatives that will be evaluated in the Draft EIR.

The scoping comments will augment the information developed by the EIR project team, which includes specialists in each of the environmental subject areas covered in the EIR. This combined input will result in an EIR scope of work that is both comprehensive and responsive to issues raised by the public and regulatory agencies, and that meets CEQA requirements. The Draft EIR is scheduled to be available for public comment in 2009.

In addition to facilitating public and regulatory agency input on the scope and focus of the Draft EIR, scoping allows the San Francisco Planning Department to explain the EIR process to the public and to identify additional opportunities for public comment and public involvement during the EIR process. CEQA requires that the public be informed about the significant environmental effects of a proposed project, and the ways in which those environmental effects can be avoided or reduced, before the project is approved.

3.0 Notification of Scoping

The scoping period began on June 5, 2008, with the issuance of the NOP. Scoping meetings were conducted on June 16 and 17, 2008, and written comments were accepted through July 8, 2008. The following methods were used to notify agencies and the public about the availability of the NOP, the scoping meeting dates and locations, and details on the comment process:

- **Mailing List.** A mailing list was compiled, including approximately 13,300 contacts for affected federal, state, regional, and local agencies; federal, state, regional, and local elected officials; regional and local interest groups; member agencies of the Bay Area

Water Supply and Conservation Agency; other potentially affected water and irrigation districts; SFPUC Community Advisory Committee members; information repositories; media contacts; and individuals living within 300 feet of the proposed project limits.

- **Notice of Preparation of an EIR and Notice of Public Scoping Meeting.** Copies of the NOP were distributed via certified mail to responsible and trustee agencies and 15 copies were delivered to the State Clearinghouse. In addition, a notice of availability of the NOP was distributed via first-class mail to the entire mailing list (approximately 13,300 addressees). (See Appendix A for a copy of the NOP and NOP Notice of Availability.)
 - ***Locations to obtain a copy of the NOP.*** The NOP was posted to the San Francisco Planning Department's website (www.sfgov.org/site/planning). A printed copy of the NOP was also provided to anyone who requested it from the SFPUC or the San Francisco Planning Department.
 - ***SFPUC Website.*** A SFWRWP EIR webpage was developed for the SFPUC's website (www.sfwater.org). Information about the project was provided, along with a link to the NOP posted on the San Francisco Planning Department website.
- **Meeting Notification.** Notice of the scoping meetings was provided to individuals and the general public through the following means (see Appendix A for copies of these materials):
 - ***Notice to entire mailing list.*** Notifications of the scoping meetings, including information on the SFWRWP EIR and the scoping process, and instructions on how to obtain a copy of the NOP and provide public comment were mailed to the entire SFWRWP mailing list approximately two weeks prior to the first scoping meeting. The notice included contact information for Chinese, Tagalog, and Spanish.
 - ***Legal notices.*** Notices of the scoping meetings and information on how to obtain a copy of the NOP and provide public comment were placed in the legal classified section of the *San Francisco Chronicle* (06/07/08), and the *San Mateo Times* (06/07/08).

Table 1 presents an itemized list of mailings.

4.0 Scoping Meetings

The San Francisco Planning Department held public scoping meetings at two locations on June 16th and 17th, 2008, (approximately two weeks after publication of the NOP). The objective of the meetings was to solicit input from the public on potential environmental impacts of the SFWRWP, the appropriate scope of the EIR, potential mitigation measures, and potential alternatives to the SFWRWP. The locations and dates of the meetings, and approximate number of attendees, are listed below.

- Janet Pomeroy Center (8 attendees) – Monday, June 16, 2008
207 Skyline Boulevard, San Francisco
- Golden Gate Senior Center (10 attendees) – Tuesday, June 17, 2008
6101 Fulton Street, San Francisco

TABLE 1
NUMBER OF RECIPIENTS ON MAILING LIST FOR NOP AND NOTICE OF SCOPING MEETINGS

Category	Number of NOP Recipients	Number of NOP Notice of Availability Recipients
Owners and Occupants	0	12,062
Wholesale Customers	2	45
Responsible and Trustee Agencies, Other Agencies	17	25
SFPUC Citizen's Advisory Committee	0	14
Interested Parties	2	1,135
Local and Bordering Jurisdictions	0	8
Media, Libraries, and Individuals	8	6
TOTAL	29	13,295

The total attendance for the two scoping meetings was 18 (based on the meeting sign-in sheets and excluding City and consultant staff). Meeting attendees primarily consisted of private property owners residing near the proposed project area. A total of four (4) participants provided oral comments at the meetings. Both scoping meetings were recorded by certified court reporters that provided verbatim written transcripts of the proceedings. The transcripts can be found in Appendix B of this report.

Each meeting included presentations on the environmental review process and the proposed SFWRWP, followed by a formal public comment period. Attendees interested in presenting oral comments submitted speaker cards and were allowed sufficient time to speak since there were so few speakers. The meetings concluded with closing remarks. Following the formal meetings, attendees were invited to review project display boards and ask questions of the project team. (See Appendix C for copies of the scoping meeting presentation, handouts, comment/speaker cards, and sign-in sheets.)

5.0 Overview of Comments Received

Agencies and members of the public utilized several different methods of providing input: oral comments during the meetings, written comments submitted during the meetings or sent via U.S. mail, email or fax, and voice mail messages left at the San Francisco Planning Department. Table 2 lists agencies /parties that provided written comments on the proposed project. Table 3 lists individuals that commented at the scoping meetings held for the proposed project. Copies of comment letters and emails are located in Appendix D, while scoping meeting transcripts are located in Appendix B.

6.0 Summary of Comments by Subject Area

This section summarizes the issues raised in both written and oral comments during the scoping period. The comment summaries are presented in two categories: CEQA and SFWRWP. Table 4 provides a summary of scoping comments by commenter; while Table 5 provides a summary of scoping comments by comment category. (Appendices B and D also contain all of the commenter correspondence and copies of the scoping meeting transcripts.)

**TABLE 2
INDEX OF WRITTEN COMMENTS**

Comment Letter No.	Commenter
1. Agencies	
1A	State of California, Department of Fish and Game
1B	State of California, Department of Transportation
1C	State of California, Native American Heritage Commission
1D	State of California, Regional Water Quality Control Board, San Francisco Bay Region
1E	Bay Area Water Supply & Conservation Agency
1F	City and County of San Francisco Recreation and Parks Department
1G	Coastal Commission
2. Individuals and Businesses	
2A	Gibson, Dunn, & Crutcher LLP
2B	Russell Hardeman
2C	Calvin Wong

**TABLE 3
INDEX OF ORAL COMMENTS**

Oral Comment No.	Commenter	Organization Name (if applicable)	Written Comment No.
Janet Pomeroy Center Meeting			
3A	Dick Morten	NA	NA
Golden Gate Senior Center Meeting			
3B	Richard Hansen	NA	NA
3C	Shirley Hansen	NA	NA
3D	Gloria Gross	NA	NA

NA = Not Applicable

**TABLE 4
SUMMARY OF COMMENTS BY COMMENTERS**

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1A State of California, Department of Fish and Game	Pg. 1, Para 3; Pg. 2, Para 1	The EIR should include a description, map, impact analysis, and mitigation measures for biological resources within and adjacent to the project area			Biological Resources		
1A State of California, Department of Fish and Game	Pg. 2, Para 2	A CESA permit is required if the project has the potential to result in take of a CESA listed species		CDFG Requirements			
1A State of California, Department of Fish and Game	Pg. 2, Para 3	A Lake and Streambed Alteration Agreement may be required		CDFG Requirements			
1B State of California, Department of Transportation	Pg. 1, Para 1	Mitigation measures, monitoring requirements, and traffic impact fees should be described in the EIR			Traffic and Transportation		
1B State of California, Department of Transportation	Pg. 1, Para 2; Pg. 2, Para 2	An encroachment permit is required for any within a State ROW, and requires a archaeological record search, District Design Review approval, and inclusion of traffic-related mitigation measures into construction plans		Cal DOT Requirements			
1C State of California, Native American Heritage Commission	Pg. 1, Para 1	The EIR assessment of archaeological resources should include a records search, inventory survey, and Native American consultation			Archaeological Resources		
1C State of California, Native American Heritage Commission	Pg. 1, Para 2	Mitigation for accidental discovery should be included in the EIR			Archaeological Resources		
1D State of California, California Regional Water Quality Control Board	Pg. 1, Para 2 - Pg. 2, Para 3	The EIR should include the definition and beneficial uses of recycled water consistent with the California Water Code	Recycled Water Beneficial Uses				
1D State of California, California Regional Water Quality Control Board	Pg. 2, Para 4 - Pg. 3, Para 1	Determine whether the project qualifies for a General Water Reuse Permit		RWQCB Permits			
1E Bay Area Water Supply & Conservation Agency	Pg. 1, Para 3-5; Pg. 2, Para 1 1-2	The EIR should clarify the project purpose, particularly regarding benefits to SFPUC wholesale customers	Project Purpose				

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTERS

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 3-4	The EIR should address potential groundwater quality impacts			Water Quality		
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 5	Questions regarding the Lake Merced Project					Lake Merced Project
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 6	The EIR should clarify treatment plant capacities	Proposed Treatment Facility				
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 7	Question regarding groundwater supply availability					Groundwater Availability
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 1	The EIR should address cross connection controls	Proposed Distribution System				
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 2	Requests correction of agency name				Corrections and Clarifications	
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 3	The EIR should address water quality impacts and residual contaminants			Water Quality, Public Health		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 2	The EIR should consider alternative "non-park" locations for treatment facilities	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 3	EIR should address Zoo development plans with preferred treatment plant location	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 4	Requests that new pump stations and Lincoln Park reservoir be underground	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 5	The EIR should consider alternative locations for the booster pump proposed at 40th and Lincoln	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 6	The EIR should address transportation related impacts with consideration to conflicts with zoo or park activities.			Traffic and Transportation, Recreation,		

**TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTERS**

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 1	EIR should address odor impacts from tertiary treatment plant and describe mitigation measures			Air Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	Odor mitigation should have third party review			Air Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	The EIR should address construction and operational impacts on Zoo animals			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	The EIR should address recycled water quality and safety			Water Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 3	The EIR should analyze the long term impacts of recycled water on parks			Biological Resources, Geology/Soils		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 4	The EIR should describe mitigation measures for removal of trees and landscaping			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address effects of salt and mineral buildup on existing Golden irrigation infrastructure and provide mitigation measures to reduce impacts			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address additional infrastructure that would be necessary to irrigate GGP	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 6	The EIR should evaluate the leakage rate from the existing irrigation distribution system			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 7	The EIR should address adequate staffing levels and training required for operation and maintenance of the project	Proposed Systems Operation				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address suitability of recycled water use in locations that do not drain well (GGP)			Water Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address effects of salt buildup on vegetation and soils			Biological Resources, Geology/Soils		
1F City and County of San Francisco-	Pg. 3,	The EIR should analyze noise effects and			Noise		

TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTERS

Committer	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
Recreation and Parks Department	Para 2	establish noise decibel standards					
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 3	Requests that facility design and landscaping should be developed in cooperation with Recreation and Park Department			Aesthetics		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 4	The EIR should consider recycled water for emergency supplies.			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 5	The EIR should analyze all construction related impacts on park resources and describe best management practices and mitigation measures			Noise, Recreation, Air Quality, Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 6	The EIR should analyze cumulative impacts with respect to the Groundwater Well project			Cumulative Impacts		
1G California Coastal Commission	Pg. 1, Para 1	Project will require a coastal development permit (CDP) from both the City/County of SF and the Coastal Commission		Coastal Commission Requirements			
2A Gibson, Dunn, & Crutcher LLP	Pg. 1, Para 2	Requests inclusion of Parcmerced development as a recycled water customer	Recycled Water Customers				
2B Russell Hardeman	Pg. 1, Para 1	Expresses preference regarding pipeline alignment	Proposed Distribution System				
2C Calvin Wong	Pa. 1, Para 2	Expresses preference regarding pipeline alignment	Proposed Distribution System				
3A Dick Morten	Pg. 17, Para 4 through Pg. 18, Para 2; Pg. 17, Para 5	Suggests additional recycled water customers	Recycled Water Customers				
3A Dick Morten	Pg. 18, Para 3-4	Suggests alternate pipeline locations	Proposed Distribution System				
3B Richard Hansen	Pg. 18,	The EIR should include a cost analysis for the				Cost Analysis	

**TABLE 4 (Continued)
SUMMARY OF COMMENTS BY COMMENTERS**

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
	Para 2	proposed project					
3B Richard Hansen	Pg. 18, Para 3	Suggests that the proposed project could provide emergency water supply	Allowable Recycled Water Uses				
3B Richard Hansen	Pg. 19, Para 5 through Pg. 20, Para 1	The EIR should address water quality and residual contaminants			Water Quality, Public Health		
3B Richard Hansen	Pg. 21, 3	Requests clarification regarding existing end use of wastewater discharge from the Oceanside Water Pollution Control Plant	Existing Wastewater Treatment Process				
3C Shirley Hansen	Pg. 19, Para 5 through Pg. 20, Para 1	The EIR should address potential sea level rise effects on the proposed project			Climate Change		
3D Gloria Goss	Pg. 20, Para 5	Indicates that recycled water use already occurs and the proposed project is unnecessary	Existing Wastewater Treatment Process				
3D Gloria Goss	Pg. 21, Para 1	Expresses concern regarding the cost and benefits of the proposed project				Cost Analysis	

**TABLE 5
SUMMARY OF COMMENTS BY COMMENT CATEGORY**

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
3B Richard Hansen	Pg. 18, Para 3	Suggests that the proposed project could provide emergency water supply	Allowable Recycled Water Uses				
3B Richard Hansen	Pg. 21, 3	Requests clarification regarding existing end use of wastewater discharge from the Oceanside Water Pollution Control Plant	Existing Wastewater Treatment Process				
3D Gloria Goss	Pg. 20, Para 5	Indicates that recycled water use already occurs and the proposed project is unnecessary	Existing Wastewater Treatment Process				
1E Bay Area Water Supply & Conservation Agency	Pg. 1, Para 3-5; Pg. 2, Para 1 1-2	The EIR should clarify the project purpose, particularly regarding benefits to SFPUC wholesale customers	Project Purpose				
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 1	The EIR should address cross connection controls	Proposed Distribution System				
2B Russell Hardeman	Pg. 1, Para 1	Expresses preference regarding pipeline alignment	Proposed Distribution System				
2C Calvin Wong	Pa. 1, Para 2	Expresses preference regarding pipeline alignment	Proposed Distribution System				
3A Dick Morten	Pg. 18, Para 3-4	Suggests alternate pipeline locations	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 5	The EIR should consider alternative locations for the booster pump proposed at 40th and Lincoln	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg.1, Para 4	Requests that new pump stations and Lincoln Park reservoir be underground	Proposed Distribution System				

**TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY**

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address additional infrastructure that would be necessary to irrigate GGP	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg.1, Para 4	Requests that new pump stations and Lincoln Park reservoir be underground	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 5	The EIR should consider alternative locations for the booster pump proposed at 40th and Lincoln	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address additional infrastructure that would be necessary to irrigate GGP	Proposed Distribution System				
1F City and County of San Francisco-Recreation and Parks Department	Pg.2, Para 7	The EIR should address adequate staffing levels and training required for operation and maintenance of the project	Proposed Systems Operation				
1F City and County of San Francisco-Recreation and Parks Department	Pg.2, Para 7	The EIR should address adequate staffing levels and training required for operation and maintenance of the project	Proposed Systems Operation				
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 6	The EIR should clarify treatment plant capacities	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 2	The EIR should consider alternative "non-park" locations for treatment facilities	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg.1, Para 3	EIR should address Zoo development plans with preferred treatment plant location	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 2	The EIR should consider alternative "non-park" locations for treatment facilities	Proposed Treatment Facility				
1F City and County of San Francisco-Recreation and Parks Department	Pg.1, Para 3	EIR should address Zoo development plans with preferred treatment plant location	Proposed Treatment Facility				

TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1D State of California, California Regional Water Quality Control Board	Pg. 1, Para 2 - Pg. 2, Para 3	The EIR should include the definition and beneficial uses of recycled water consistent with the California Water Code	Recycled Water Beneficial Uses				
2A Gibson, Dunn, & Crutcher LLP	Pg. 1, Para 2	Requests inclusion of Parcmerced development as a recycled water customer	Recycled Water Customers				
3A Dick Morten	Pg. 17, Para 4 through Pg. 18, Para 2; Pg. 17, Para 5	Suggests additional recycled water customers	Recycled Water Customers				
1B State of California, Department of Transportation	Pg. 1, Para 2; Pg. 2, Para 2	An encroachment permit is required for any within a State ROW, and requires a archaeological record search, District Design Review approval, and inclusion of traffic-related mitigation measures into construction plans		Cal DOT Requirements			
1A State of California, Department of Fish and Game	Pg. 2, Para 2	A CESA permit is required if the project has the potential to result in take of a CESA listed species		CDFG Requirements			
1A State of California, Department of Fish and Game	Pg. 2, Para 3	A Lake and Streambed Alteration Agreement may be required		CDFG Requirements			
1G California Coastal Commission	Pg. 1, Para 1	Project will require a coastal development permit (CDP) from both the City/County of SF and the Coastal Commission		Coastal Commission Requirements			
1G California Coastal Commission	Pg. 1, Para 1	Project will require a coastal development permit (CDP) from both the City/County of SF and the Coastal Commission		Coastal Commission Requirements			
1D State of California, California Regional Water Quality Control Board	Pg. 2, Para 4 - Pg. 3, Para 1	Determine whether the project qualifies for a General Water Reuse Permit		RWQCB Permits			

TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 3	EIR should analyze the long term impacts of recycled water on parks			Biological Resources, Geology/Soils		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address effects of salt buildup on vegetation and soils			Biological Resources, Geology/Soils		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 3	The EIR should analyze the long term impacts of recycled water on parks			Biological Resources, Geology/Soils		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address effects of salt buildup on vegetation and soils			Biological Resources, Geology/Soils		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 3	Requests that facility design and landscaping should be developed in cooperation with Recreation and Park Department			Aesthetics		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 3	Requests that facility design and landscaping should be developed in cooperation with Recreation and Park Department			Aesthetics		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 1	EIR should address odor impacts from tertiary treatment plant and describe mitigation measures			Air Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	Odor mitigation should have third party review			Air Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 1	EIR should address odor impacts from tertiary treatment plant and describe mitigation measures			Air Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	Odor mitigation should have third party review			Air Quality		
1C State of California, Native American Heritage Commission	Pg. 1, Para 1	The EIR assessment of archaeological resources should include a records search, inventory survey, and Native American consultation			Archaeological Resources		

TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1C State of California, Native American Heritage Commission	Pg. 1, Para 2	Mitigation for accidental discovery should be included in the EIR			Archaeological Resources		
1A State of California, Department of Fish and Game	Pg. 1, Para 3; Pg. 2, Para 1	The EIR should include a description, map, impact analysis, and mitigation measures for biological resources within and adjacent to the project area			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	The EIR should address construction and operational impacts on Zoo animals			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 4	The EIR should describe mitigation measures for removal of trees and landscaping			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	The EIR should address construction and operational impacts on Zoo animals			Biological Resources		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 4	The EIR should describe mitigation measures for removal of trees and landscaping			Biological Resources		
3C Shirley Hansen	Pg. 19, Para 5 through Pg. 20, Para 1	The EIR should address potential sea level rise effects on the proposed project			Climate Change		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 6	The EIR should analyze cumulative impacts with respect to the SFPUC Groundwater Well project			Cumulative Impacts		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 6	The EIR should analyze cumulative impacts with respect to the Groundwater Well project			Cumulative Impacts		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 2	The EIR should analyze noise effects and establish noise decibel standards			Noise		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 2	The EIR should analyze noise effects and establish noise decibel standards			Noise		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 5	The EIR should analyze all construction related impacts on park resources and describe best management practices and mitigation measures			Noise, Recreation, Air Quality, Biological Resources		

TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 5	The EIR should analyze all construction related impacts on park resources and describe best management practices and mitigation measures			Noise, Recreation, Air Quality, Biological Resources		
1B State of California, Department of Transportation	Pg. 1, Para 1	Mitigation measures, monitoring requirements, and traffic impact fees should be described in the EIR			Traffic and Transportation		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 6	The EIR should address transportation related impacts with consideration to conflicts with zoo or park activities.			Traffic and Transportation, Recreation		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 1, Para 6	The EIR should address transportation related impacts with consideration to conflicts with zoo or park activities.			Traffic and Transportation, Recreation,		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address effects of salt and mineral buildup on existing Golden irrigation infrastructure and provide mitigation measures to reduce impacts			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg.2, Para 6	Requests evaluation of leakage rate from the existing irrigation distribution system			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 4	The EIR should consider recycled water for emergency supplies.			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 5	The EIR should address effects of salt and mineral buildup on existing Golden irrigation infrastructure and provide mitigation measures to reduce impacts			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg.2, Para 6	The EIR should evaluate the leakage rate from the existing irrigation distribution system			Utilities and Services		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 4	The EIR should consider recycled water for emergency supplies.			Utilities and Services		
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 3-4	The EIR should address potential groundwater quality impacts			Water Quality		

TABLE 5 (Continued)
SUMMARY OF COMMENTS BY COMMENT CATEGORY

Commenter	Page (Pg.), Paragraph (Para)	Summary of Comment	Description of the Project	Agency Coordination (Permits and Approvals)	EIR Resource Topics	Other Project Comments	Comments Not Applicable to Proposed Project
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	EIR should address recycled water quality and safety			Water Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address suitability of recycled water use in locations that do not drain well (GGP)			Water Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 2, Para 2	The EIR should address recycled water quality and safety			Water Quality		
1F City and County of San Francisco-Recreation and Parks Department	Pg. 3, Para 1	The EIR should address suitability of recycled water use in locations that do not drain well (GGP)			Water Quality		
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 3	The EIR should address water quality impacts and residual contaminants			Water Quality, Public Health		
3B Richard Hansen	Pg. 19, Para 5 through Pg. 20, Para 1	The EIR should address water quality and residual contaminants			Water Quality, Public Health		
1E Bay Area Water Supply & Conservation Agency	Pg. 3, Para 2	Requests correction of agency name				Corrections and Clarifications	
3B Richard Hansen	Pg. 18, Para 2	The EIR should include a cost analysis for the proposed project				Cost Analysis	
3D Gloria Goss	Pg. 21, Para 1	Expresses concern regarding the cost and benefits of the proposed project				Cost Analysis	
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 7	Question regarding groundwater supply availability					Groundwater Availability
1E Bay Area Water Supply & Conservation Agency	Pg. 2, Para 5	Questions regarding the Lake Merced Project					Lake Merced Project

APPENDICES

- A. Notice of Preparation and NOP Notice of Availability
- B. Scoping Meeting Transcripts
- C. Scoping Meeting Materials
- D. Comments Received During SFWRWP EIR Scoping Process

APPENDIX A

Notice of Preparation and NOP Notice of Availability



SAN FRANCISCO PLANNING DEPARTMENT

May 27, 2008

To Responsible Agencies, Trustee Agencies, and Interested Parties:

RE: CASE NO. 2008.0091E – SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

A Notice of Preparation (NOP) of a draft environmental impact report (DEIR) pursuant to the California Environmental Quality Act (CEQA) and a Notice of Public Scoping Meeting for the above-referenced project sponsored by the San Francisco Public Utilities Commission (SFPUC), described below, has been issued by the San Francisco Planning Department. The NOP is either attached or is available at the San Francisco Planning Department's website (www.sfplanning.org/mea), and upon request from **Carrie Dovzak**, who may be reached at **(415) 575-9030**, Carrie.Dovzak@sfgov.org, or by mail at the above address. This notice is being sent to you because you have been identified as potentially having an interest in the project or the project area.

Project Description: The proposed San Francisco Westside Recycled Water Project (the Project) includes the construction of recycled water treatment, storage, and distribution facilities for recycled water customers located in west San Francisco. It would involve construction of a new recycled water treatment facility with an annual average production of approximately 2.0 million gallons per day (mgd) at the Oceanside Water Pollution Control Plant (WPCP) in San Francisco. The new treatment facility would be located within the existing footprint of the Oceanside WPCP, in and adjacent to the West Gate entrance and berm area. The Project includes construction of recycled water storage facilities, potentially including the following: a new 1.5-million-gallon (mg) treated water reservoir at the Oceanside WPCP; expansion of the existing 2-mg underground reservoir in Golden Gate Park by approximately 2.0 mg; and a new 1.0-mg reservoir at Lincoln Park. The proposed distribution facilities would consist of pump stations at the recycled water treatment facility, the Golden Gate Park reservoir, and in Lincoln Park; approximately seven miles of new pipeline to connect the proposed reservoirs and pump stations to the recycled water treatment facility; and approximately five to six miles of new pipeline that would branch off of the main distribution line to serve irrigation and commercial customers (e.g., Golden Gate Park). The Project seeks to meet the level of service goals and system performance objectives of the SFPUC's proposed regional Water System Improvement Program (WSIP) (see www.sfwater.org) by diversifying regional water supplies through the development of recycled water as an alternative water supply for non-potable uses.

Pursuant to the NOP, the San Francisco Planning Department has determined that an environmental impact report (EIR) must be prepared for the project prior to any final decision by the SFPUC regarding whether to approve or disapprove the project. The purpose of the EIR is to provide information about any potentially significant adverse environmental effects of the proposed project, to identify reasonable and feasible methods to minimize any potentially significant adverse effects, and to describe and analyze feasible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City of San Francisco to approve or to disapprove the project. However, prior to making any such decision, the SFPUC must review and consider the information contained in the EIR.

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

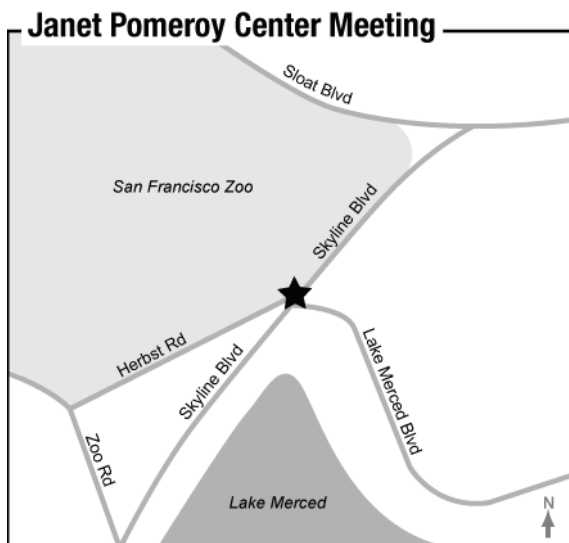
Fax:
415.558.6409

Planning
Information:
415.558.6377

If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the proper scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency. If you have questions concerning environmental review of the proposed project, please contact **Carrie Dovzak** at **(415) 575-9030** or Carrie.Dovzak@sfgov.org.

The San Francisco Planning Department will hold two PUBLIC SCOPING MEETINGS at the locations, dates, and times listed below. The purpose of these meetings will be to receive oral comments that will assist the San Francisco Planning Department in reviewing the scope and focus of the Project's environmental impact analysis and information to be contained in the EIR. The public will have the opportunity to comment and offer testimony for consideration. In order for your concerns to be fully considered throughout the environmental review process, they must be received by close of business on **July 8, 2008**. Written comments should be sent by mail to Bill Wycko, Acting Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479; by fax to (415) 558-6409; or by e-mail to Carrie.Dovzak@sfgov.org.

Janet Pomeroy Center - San Francisco	Golden Gate Park Senior Center - San Francisco
June 16, 2008	June 17, 2008
6:30 PM (starting promptly)	6:30 PM (starting promptly)
207 Skyline Boulevard (at Herbst Road)	6101 Fulton Street (at 37 th Avenue)





SAN FRANCISCO PLANNING DEPARTMENT

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

Date of this Notice:	May 27, 2008	
Lead Agency:	San Francisco Planning Department 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479	
Agency Contact Person:	Carrie Dovzak	Telephone: (415) 575-9030
E-mail:	Carrie.Dovzak@sfgov.org	Facsimile: (415) 558-6409
Project Title:	2008.0091E – San Francisco Westside Recycled Water Project	
Project Sponsor:	San Francisco Public Utilities Commission 1145 Market Street, 4th Floor, San Francisco, CA 94103	
Contact Person:	Antonia Fairbanks	Telephone: (415) 554-3238
E-mail:	afairbanks@sfgwater.org	Facsimile: (415) 934-5750
Project Location:	Various	
Assessor's Parcel Nos.:	Various	
County:	San Francisco	

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Information:
415.558.6377

PROJECT DESCRIPTION: The proposed San Francisco Westside Recycled Water Project (the Project) includes the construction of recycled water treatment, storage, and distribution facilities for recycled water customers located in west San Francisco. It would involve construction of a new recycled water treatment facility with an annual average production of approximately 2.0 million gallons per day (mgd) at the Oceanside Water Pollution Control Plant (WPCP) in San Francisco. The new treatment facility would be located within the existing footprint of the Oceanside WPCP, in and adjacent to the West Gate entrance and berm area. The Project includes construction of recycled water storage facilities, potentially including the following: a new 1.5-million-gallon (mg) treated water reservoir at the Oceanside WPCP; expansion of the existing 2-mg underground reservoir in Golden Gate Park by approximately 2.0 mg; and a new 1.0-mg reservoir at Lincoln Park. The proposed distribution facilities would consist of pump stations at the recycled water treatment facility, the Golden Gate Park reservoir, and in Lincoln Park; approximately seven miles of new pipeline to connect the proposed reservoirs and pump stations to the recycled water treatment facility; and approximately five to six miles of new pipeline that would branch off of the main distribution line to serve irrigation and commercial customers (e.g., Golden Gate Park). The Project seeks to meet the level of service goals and system performance objectives of the SFPUC's proposed regional Water System Improvement Program (WSIP) (see www.sfgwater.org) by diversifying regional water supplies through the development of recycled water as an alternative water supply for non-potable uses.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT. AN ENVIRONMENTAL IMPACT REPORT (EIR) IS REQUIRED. This determination is based upon the criteria given in the following sections of the Guidelines of the State Secretary for Resources: 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance).

PUBLIC SCOPING MEETINGS will be held pursuant to the State of California Public Resources Code Section 21083.9 and California Environmental Quality Act Guidelines Section 15201 to receive oral comments concerning the scope of the EIR. The San Francisco Planning Department will hold two scoping meetings in June of 2008, as follows:

Janet Pomeroy Center - San Francisco	Golden Gate Park Senior Center - San Francisco
June 16, 2008	June 17, 2008
6:30 PM (starting promptly)	6:30 PM (starting promptly)
207 Skyline Boulevard (at Herbst Road)	6101 Fulton Street (at 37 th Avenue)

The purpose of these meetings will be to receive oral comments that will assist the San Francisco Planning Department in reviewing the scope and focus of the Project's environmental impact analysis and information to be contained in the EIR. The public will have the opportunity to comment and offer testimony for consideration. The San Francisco Planning Department will also accept written comments at the meetings or by mail, email, or fax until the close of business on July 8, 2008. Written comments should be sent to the San Francisco Planning Department, Attn: Bill Wycko, Acting Environmental Review Officer, SF Westside Recycled Water Project, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or sent by email to carrie.dovzak@sfgov.org.

Documents relating to the proposed project are available for review, by appointment only, at the San Francisco Planning Department's Major Environmental Analysis office, 1650 Mission Street, Suite 400. Please call Carrie Dovzak at (415) 575-9030 to make an appointment. Documents are also available online at:

<http://www.sfgov.org/planning/mea>

中文資料請電: 415-558-5956

Para sa impormasyon sa Tagalog tumawag sa: **415-558-6251**

Para información en Español llame al: **415-558-5952**

May 27, 2008
Date



Bill Wycko,
Acting Environmental Review Officer
San Francisco Planning Department

SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT

CASE NO. 2008.0091E

1.0 Overview

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Westside Recycled Water Project (the Project). To meet California Environmental Quality Act (CEQA) requirements, the San Francisco Planning Department's Major Environmental Analysis (MEA) Division will prepare and distribute an environmental impact report (EIR) to describe and analyze the environmental effects of the Project. This Notice of Preparation (NOP) describes the proposed new facilities and potential environmental effects of the Project, as well as announces scoping meeting dates for public comment.

The Project includes the construction of recycled water treatment, storage, and distribution facilities for recycled water customers located in west San Francisco. It is based on the SFPUC's Recycled Water Master Plan (SFPUC, 2006), which updates the 1996 Recycled Water Master Plan,¹ reflects a decentralized approach to water recycling within the City and County of San Francisco (CCSF), and addresses recent advances in water treatment technology. The Project is described in detail in Section 2.0, below.

The Project is a component of SFPUC's proposed Water System Improvement Program (WSIP) (see www.sfwater.org), which includes facility improvement projects designed to: (1) ensure compliance with existing and anticipated future water quality standards under a range of operating conditions; (2) upgrade the seismic standards of critical facilities to improve seismic reliability and reduce the system's vulnerability to damage from earthquakes; (3) improve water delivery reliability under a variety of operating conditions by improving overall operations of the system; and (4) ensure that SFPUC has an adequate supply of water available to deliver to customers during both nondrought and drought periods through the year 2030. A programmatic EIR is currently being prepared by the San Francisco Planning Department to evaluate the potential environmental impacts of the WSIP on a programmatic level and to evaluate regional water supply alternatives. The Project, which is the subject of this NOP, is a component of the WSIP; implementation of this project would contribute to meeting the overall WSIP goals and objectives.

¹ The SFPUC 1996 Recycled Water Master Plan EIR was certified by the San Francisco Planning Commission in August 1997.

1.1 Project History and Development

As described above, the Project would help achieve the level of service goals and system performance objectives identified in the WSIP. These goals include providing a total of 10 million gallons per day (mgd) of conservation, recycled water, and groundwater to meet retail demand in San Francisco. To help meet the 10 mgd goal, the original WSIP project description assumed that the Project would provide approximately 4 mgd of recycled water to users in San Francisco through two subprojects: the Westside Baseline and Harding Park/Lake Merced projects. Originally, the Westside Baseline Project proposed to deliver 2.8 mgd of recycled water to customers in western San Francisco and the Harding Park/Lake Merced Project proposed to deliver 1.3 mgd of recycled water for irrigation of Harding Park Golf Course and recharge of Lake Merced. The scope of the proposed project, however, has been redefined to include only the Westside Baseline Project, which is now referred to as the Project.² However, the SFPUC is still committed to meeting the 10 mgd of demand through conservation, recycled water, and groundwater projects; the demand would simply be met by providing less recycled water and more groundwater (in the case of the Lake Merced Project) and by providing recycled water through coordination with another jurisdiction (in the case of the Harding Park Project).

1.1.1 Lake Merced Project

The Lake Merced Levels Restoration Alternatives Report (SFPUC, 2008a) recommended a combination of wetlands-treated stormwater and groundwater as the preferred water source for Lake Merced rather than recycled water. As a result, the Lake Merced component has been eliminated from the Project and the amount of water that would have been supplied for Lake Merced restoration by recycled water is proposed to be supplied by treated stormwater and groundwater.

1.1.2 Harding Park Recycled Water Project

The Harding Park Recycled Water Feasibility Study (Daly City/SFPUC/SF Recreation and Parks, 2007) concluded that the existing North San Mateo County Sanitation District recycled water treatment facility in Daly City had sufficient capacity to provide recycled water for the irrigation of the Harding Park Golf Course. The necessary infrastructure to serve Daly City's recycled water to Harding Park would be constructed through a project that is being implemented in partnership between the SFPUC and Daly City. Although the Harding Park Recycled Water Project is part of the WSIP, it is being implemented separately from the proposed project.

1.1.3 Recycled Water Demand

In addition to the changes to proposed customers under the Project, development of the Project included refinement of the irrigation demands for proposed Westside customers, resulting in lower estimates for irrigation water use demands. As a result, demand under the Project was reduced from an annual average of 2.8 mgd to approximately 2.3 mgd. Project demand estimates will be revisited during the project design process. As part of the Project, the SFPUC proposes service of recycled water to ten major recycled water customers (see Section 2.2, Table 1), which have a combined demand of approximately

² Changes to the original WSIP project description, including refinement of recycled water projects, are reflected in the Revised 2007 WSIP Project Description (SFPUC, 2008b).

2.0 mgd, or almost 90 percent of the total revised Project demand of 2.3 mgd. The remaining identified potential Project customers would not be served as part of this project (such as San Francisco State University), but may be served as part of a future project phase, or through continued partnerships with neighboring utilities. The SFPUC proposes including an additional 0.8 mgd (annual average) treatment and distribution capacity within the current project, for a total of 2.8 mgd (annual average) treatment capacity, to accommodate potential future system build-out to Westside customers, and also to provide a contingency to address uncertainties in current demand estimates. If additional customers are added to the recycled water system in the future, separate environmental review under CEQA will be conducted by the San Francisco Planning Department.

1.2 San Francisco Westside Recycled Water Project Summary

The facilities included as part of the Project are shown in **Figure 1** and are described briefly below.

Treatment. A new recycled water treatment facility, with an annual average production of approximately 2.0 mgd and an annual average treatment capacity of 2.8 mgd, would be located at the Oceanside Water Pollution Control Plant (Oceanside WPCP) in San Francisco near the San Francisco Zoo. The tertiary treatment process would consist of membrane filtration followed by ultraviolet (UV) light disinfection. The Oceanside WPCP would also provide chemical feed systems, including coagulant, acid and base, and sodium hypochlorite that would assist the treatment process.

- Storage. Recycled water storage facilities include:
 1. A new 1.5-million-gallon (mg) treated water reservoir at the Oceanside WPCP;
 2. Expansion of an existing 2-mg underground reservoir in Golden Gate Park by approximately 2.0 mg; and
 3. A new 1.0-mg reservoir at Lincoln Park.
- Distribution. Distribution facilities include:
 1. Pump stations at the recycled water treatment facility (which would be located at the Oceanside WPCP), at the Golden Gate Park reservoir, and in Lincoln Park;
 2. Approximately seven miles of new pipeline (between 6 – 24 inches in diameter) to connect the proposed reservoirs and pump stations to the recycled water treatment facility; and
 3. Approximately five to six miles of new pipeline (between 4 – 24 inches in diameter) that would branch off of the main distribution line to serve irrigation and commercial customers.

1.3 Environmental Review Process

As the CEQA lead agency, MEA will prepare an EIR to evaluate the potential environmental impacts of constructing and operating the proposed project. In accordance with CEQA Guidelines Section 15161, the EIR will provide information about potential significant environmental impacts of the Project, identify possible ways to minimize the any significant impacts, and describe and analyze possible alternatives to the Project.

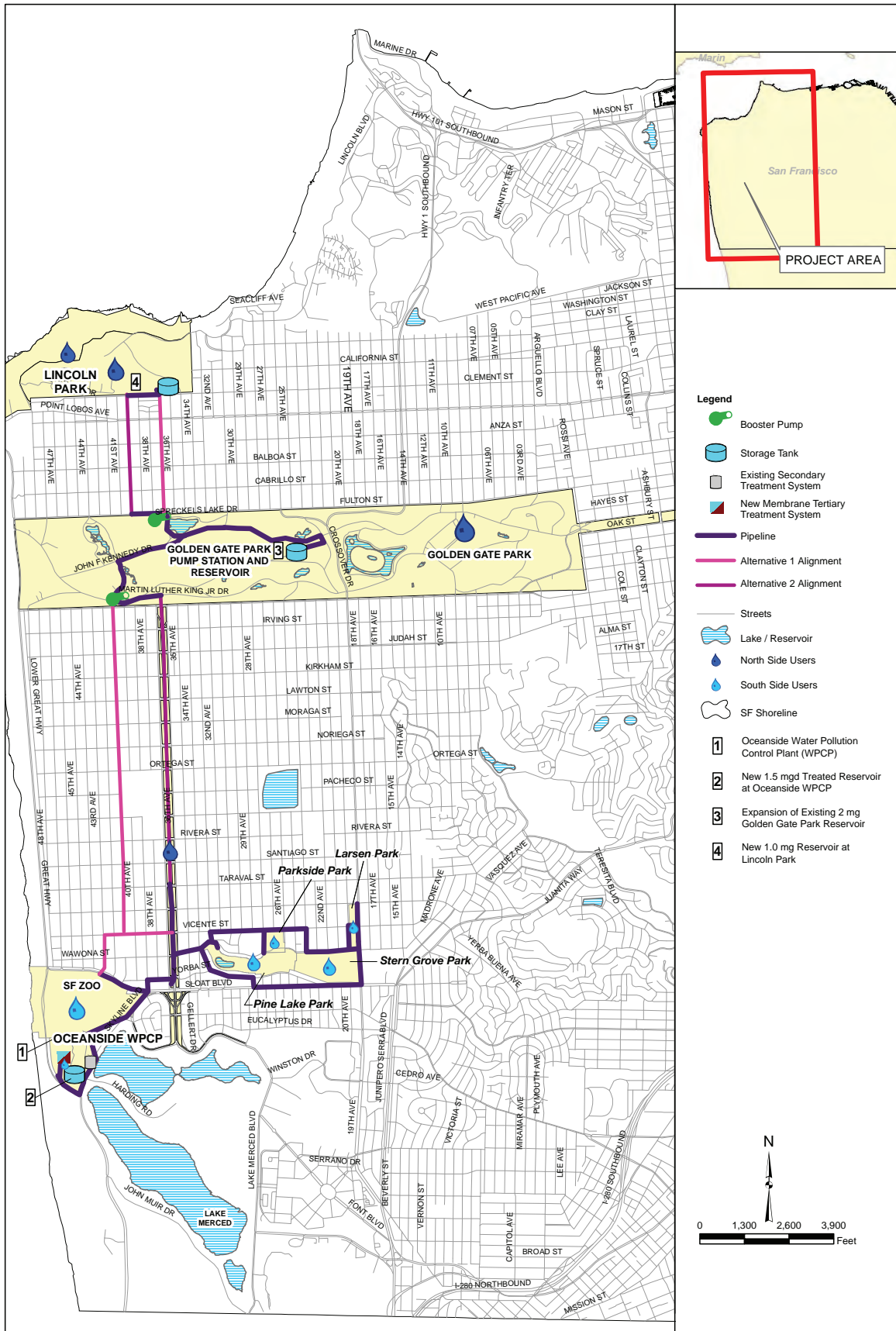


Figure 1
Proposed Project Location and Distribution Pipeline Alignment

The first step in the environmental review process is the formal public scoping process (see Section 1.4, below). During the 30-day public review of this NOP, MEA will hold scoping meetings to hear public comment on the NOP. Written comments will also be accepted during this period. Following the public scoping meeting, a Draft EIR will be prepared and circulated for a 45-day public review period. Public comments on the Draft EIR will be accepted in writing during the review period or orally at a formal public hearing to be held by the San Francisco Planning Commission. MEA will then prepare written responses to comments on environmental issues raised during the public review period, and a Response to Comments document will be prepared. This document will be considered by the San Francisco Planning Commission, along with the Draft EIR and any revisions to the draft based on the responses to comments, for certification as a Final EIR.

1.4 Public Scoping Meetings

The San Francisco Planning Department will hold two scoping meetings following release of this NOP in June of 2008 as follows:

Janet Pomeroy Center – San Francisco	Golden Gate Park Senior Center – San Francisco
June 16, 2008	June 17, 2008
6:30 PM (starting promptly)	6:30 PM (starting promptly)
207 Skyline Boulevard (at Herbst Road)	6101 Fulton Street. (at 37 th Avenue)

The purpose of these meetings will be to receive comments that will assist the San Francisco Planning Department in determining the scope and focus of the Project environmental impact analysis to be addressed the EIR. At the meeting, the public will have the opportunity to comment or hand in written comments. The San Francisco Planning Department will also accept written comments by mail, email, or fax until the close of business on July 8, 2008. Written comments should be sent to the San Francisco Planning Department, Attn: Bill Wycko, Acting Environmental Review Officer, SF Westside Recycled Water Project, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or sent by email to carrie.dovzak@sfgov.org.

2.0 Project Description

2.1 Project Location

The Project would be located on the west side of the City of San Francisco. Wastewater would be treated to a tertiary level³ at the proposed recycled water treatment facility, which would be located at the Oceanside WPCP (see Figure 1). The proposed recycled water treatment facility would be located within the facility and berm area adjacent to the Oceanside WPCP's west gate entrance (West Gate Berm) and the Great Highway (see **Figure 2**).

³ Tertiary treatment, or advanced treatment, removes specific residual substances, trace organic materials, nutrients, and other constituents that are not removed by biological processes.



Figure 2
Proposed Recycled Water Treatment
Facility and Reservoir

From the Oceanside WPCP, a network of pipelines would distribute the treated recycled water to a series of reservoirs and pump stations within San Francisco, including: (1) Golden Gate Park Reservoir and Pump Station; (2) Booster Pump Station in Golden Gate Park near Spreckels Lake; and (3) Lincoln Park Reservoir and Pump Station located in Lincoln Park.

The service area for the Project is described in Section 2.2.

2.2 Project Purpose

The primary purpose of the Project is to reduce SFPUC's reliance on potable water for nonpotable uses such as irrigation. The project would meet the current demands of irrigation customers by distributing recycled water to Golden Gate Park, Lincoln Park and Golf Course, and other areas along the west side of San Francisco. The Project is anticipated to produce and deliver an annual average of approximately 2.0 mgd of treated recycled water, with a peak output of about 4.9 mgd during the summer. The recycled water treatment facility would be sized with additional capacity (annual average capacity up to 2.8 mgd and total capacity up to 6.7 mgd) to address uncertainties in the estimates of the customer demands, and to accommodate the demands of potential future recycled water customers that are in close proximity to the main distribution pipelines. **Table 1** summarizes the proposed major customers and their respective demands that would be served by the Project.

**TABLE 1
SUMMARY OF PROPOSED RECYCLED WATER CUSTOMERS**

Proposed Customer	Annual Average (mgd)	July Peak (mgd)
Northern Customers		
Golden Gate Park	1.12	2.69
Lincoln Park Golf Course	0.24	0.57
Lincoln Park	0.12	0.29
Southern Customers		
San Francisco Zoo	0.34	0.81
Stern Grove Park	0.05	0.12
Pine Lake Park	0.04	0.10
Parkside Park	0.01	0.03
Larsen Park	0.01	0.03
Sunset Blvd Median	0.09	0.21
Oceanside WPCP	0.01	0.02
Subtotal	2.0	4.9
Additional Treatment Plant Capacity	0.8	1.8
Total	2.8	6.7

mgd = million gallons per day

2.3 Project Objectives

A goal of the WSIP is to provide the required water supply to meet current and long-term customer water needs by diversifying regional water supplies. The project would contribute to the WSIP goals of diversifying regional water supplies through the development of recycled water as an alternative water supply for nonpotable uses, and help meet regional system water demands.

The specific objectives of the Proposed Project include:

- Diversify the SFPUC's water supplies by developing recycled water to benefit the SFPUC regional water system and help meet long-term water demands within the regional water system.
- Develop a new water supply that is both reliable and drought-resistant and under SFPUC jurisdiction.
- Reduce the use of potable water and groundwater for irrigation and other non-potable uses by supplying those demands with recycled water.

2.4 Proposed Facilities

2.4.1 Recycled Water Treatment Facility and Reservoir

Treatment Process

Oceanside WPCP secondary effluent⁴ water would be treated to a tertiary level⁵ using membrane filtration to remove suspended solids and other particles and UV light disinfection technology to treat (kill or render harmless) microorganisms. During the treatment process, a variety of chemicals would be used to support the operation of the membrane filters, including coagulant, acid and base, and sodium hypochlorite (i.e., chlorine). After UV disinfection, sodium hypochlorite would be added to the water before it enters the distribution system to prevent biological re-growth in the pipeline system. Sodium hydroxide, or another low-pH chemical, would be added to adjust the pH of the finished water to provide corrosion control in the distribution system. The treatment process would generate water that meets the regulatory requirements of California Department of Public Health Services Title 22 for disinfected tertiary recycled water.⁶

⁴ Secondary effluent treatment is a process that reduces suspended solids and biological oxygen demand in wastewater by approximately 90 percent.

⁵ Tertiary treatment, or advanced treatment, removes specific residual substances, trace organic materials, nutrients, and other constituents that are not removed by biological processes.

⁶ The California Department of Health Services-established water quality criteria, treatment process requirements, and treatment reliability criteria for water recycling operations, which are set forth in Title 22, Division 4, Chapter 3, of the *California Code of Regulations*. Under this regulation "Disinfected tertiary recycled water" means a filtered and subsequently disinfected wastewater that meets the following criteria: (a) the filtered wastewater has been disinfected by either: (1) a chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times, with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or (2) a disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration. (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probably number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

Process Equipment

Treatment process equipment would include membrane filtration units, UV modules, chemical storage tanks, metering pumps, sampling/monitoring equipment, pumps, pipelines, backwash pumps, an air compressor, and other appurtenant equipment. All of this equipment would be contained within the Oceanside WPCP.

Recycled Water Treatment Facility and Reservoir Site

The proposed recycled water treatment facility would be located within the existing footprint of the Oceanside WPCP, in and adjacent to the West Gate entrance and berm area. The West Gate Berm was created during the construction of the Oceanside WPCP and is currently planted with non-native vegetation. The recycled water treatment facility would house the membrane filtration equipment, chemicals, UV equipment, electrical controls, some of the pumping equipment, and other appurtenant equipment described above. The proposed building would be approximately 180 feet by 60 feet by 20 feet and constructed of reinforced concrete. The building would extend into the berm as well as into the existing roadway/open area inside of the Oceanside WPCP, with minimal visibility from outside of the plant. The height and siting of the building would be designed so that the berm can be restored and replanted to result in minimal visual change as seen from the Great Ocean Highway. In addition, a 1.5-mg reservoir would be located either underneath or adjacent to the proposed recycled water treatment facility to store the disinfected tertiary effluent (see **Figure 2**). All facilities in this location would be sited within the Oceanside WPCP parcel.

Distribution Pumps

Two new sets of distribution pumps would be constructed as part of the Project. One set of low-pressure pumps would distribute water to the southern customers outside of the Oceanside WPCP, while a second set of higher-pressure pumps would transfer recycled water from the Oceanside WPCP to the existing Golden Gate Park reservoir. The low-pressure pump would have a flow capacity of approximately 3,500 gallons per minute (gpm), and the high-pressure pump would have a flow capacity of approximately 1,070 gpm. The proposed distribution pumps would be located within the Oceanside WPCP footprint, and would likely be outside near the proposed recycled water treatment facility building. Details regarding the number and size of the pumps required for the Project are currently being developed and will be detailed in the EIR.

2.4.2 Recycled Water Distribution System

Distribution Pipelines

Approximately seven miles of pipeline would be constructed to connect the proposed reservoirs and pump stations. The pipes would be built primarily in public right of ways (streets). Pipe sizes would range between 4 inches and 24 inches in diameter. A general proposed scheme for the pipeline network is shown in Figure 1.

Oceanside WPCP to Golden Gate Park

The specific location of the distribution pipeline network to move treated recycled water from the Oceanside WPCP to the Golden Gate Reservoir is still under development and will be detailed and

analyzed in the EIR. The two alternative alignments for the main distribution pipeline currently under consideration are described below and are shown in Figure 1.

Southern Distribution Alignment Alternative 1. Under Southern Alternative 1, the main line would traverse the following streets:

- South along the Great Highway,
- North along Skyline Boulevard,
- West along Sloat Boulevard,
- North on 43rd Avenue,
- East on Vicente Street,
- North on 41st Avenue,
- North on Chain of Lakes Drive (east),
- East on John F. Kennedy Drive,
- South on Transverse Drive, and
- West on Overlook Drive.

Additional smaller pipelines could potentially branch off this main distribution line to serve customers.

Southern Distribution Alignment Alternative 2. Under Southern Alternative 2, the main distribution pipeline would run along the same alignment as Southern Alternative 1 until Vicente Street. At that point, the pipeline alignment follows these streets:

- North along Sunset Boulevard,
- Martin Luther King Jr. Drive, and
- John F. Kennedy Drive to the Golden Gate Reservoir.

Golden Gate Park to Lincoln Park

The Golden Gate Reservoir (an existing underground reservoir located at the Parks and Recreation Maintenance yard in Golden Gate Park) would serve the Golden Gate Park irrigation system through the existing Golden Gate Park distribution main pipeline. Two alternative distribution alignments from Golden Gate Park to Lincoln Park are under consideration.

Northern Distribution Alignment Alternative 1. Under Northern Alternative 1, the proposed new reservoir in Lincoln Park would be served from a distribution pipeline traversing the following streets:

- John F. Kennedy Drive,
- 36th Avenue, and
- Clement Street.

Northern Distribution Alignment Alternative 2. Alternatively, preliminary analysis indicates that the Lincoln Park area also might be served directly from the Golden Gate Park reservoir (which would be enlarged to accommodate the Lincoln Park demand) by installing a pipeline through these streets:

- West along Fulton Street,
- North along 39th Avenue, and
- West along Clement Street.

This new pipeline would connect directly to the Lincoln Park irrigation service pipeline and would eliminate the need for a new reservoir in Lincoln Park.

Oceanside WPCP to Southern Customers

Distribution pipelines for potential recycled water customers in the southern part of the project area (see Table 1) would traverse through the following streets and highways:

- South along the Great Ocean Highway,
- North on Skyline Boulevard,
- East on Yorba Street,
- North on Sunset Boulevard,
- East on Wawona Street,
- North on 33rd Street,
- East on Vicente Street,
- South on 24th Avenue,
- East on Wawona Street,
- South on 19th Avenue,
- West on Sloat Boulevard (Highway 35),
- West on Crestlake Drive, and
- Connecting back to Wawona Street.

Smaller pipelines branching off this main distribution line would connect to the customer's irrigation service along portions of 20th and 19th Avenue and Vicente Street.

All pipelines would be kept within current roadway alignments and kept to as short a distance as feasible to provide a connection between the Oceanside WPCP, Golden Gate Park, Lincoln Park, and other smaller parks.

Reservoirs and Pump Stations

The Project includes the construction and/or upgrade of two reservoirs with associated pump stations and a booster pump station. These proposed facilities are described below.

Golden Gate Park Underground Reservoir and Pump Stations at San Francisco Park and Recreation Maintenance Area

An existing 2.0 mg underground reservoir in Golden Gate Park, located underneath the composting area at a San Francisco Park and Recreation maintenance area, currently stores groundwater for the park's irrigation system. There is also a pump station at this facility that distributes water to this system. This project would expand the underground reservoir by approximately 1.0 mg to a total of 3.0 mg and convert the reservoir to recycled water storage. The existing pump station capacity might also need to be expanded as part of this project. A new 1,200 square-foot pump station will be built adjacent to the existing 2,400 square-foot pump station to house the additional required pumps.

Booster Pump Station near Model Boathouse Maintenance Area in Golden Gate Park

An approximately 600-square-foot, high-pressure booster pump station with a flow capacity of 600 gpm would be required to pump recycled water from Golden Gate Park to the proposed Lincoln Park reservoir, if this alternative is chosen (Lincoln Park is at a higher elevation than Golden Gate Park). This booster

pump station would be located near the Model Boathouse Maintenance Area (near Spreckels Lake) in Golden Gate Park.

Lincoln Park Underground Reservoir and Pump Station

Two options are currently under consideration for recycled water service in the Lincoln Park area: (1) constructing a new underground reservoir and (2) increasing the proposed expansion of the existing Golden Gate Park Reservoir from 1.0 mg to 2.0 mg and using a high-pressure pump system to deliver recycled water to the Lincoln Park area. These options are discussed in detail below.

1. Under Option 1, SFPUC would construct an approximately 1.0-mg underground reservoir located near the Lincoln Park Golf Course at 35th Avenue and Clement Street. An above-ground pump station with a flow capacity of 1,800 gpm would also be required in the vicinity of the Lincoln Park reservoir to boost water pressure to the park's service area.
2. Under Option 2, SFPUC would increase the capacity at the Golden Gate Reservoir by 2.0 mg instead of 1.0 mg (a total of 4.0 mg) and would not construct a new underground reservoir at Lincoln Park. Under this option, the high-pressure booster pump station discussed above at the Model Boathouse Maintenance Area would still be required, although the capacity would be increased to approximately 1,800 gpm.

2.4.3 Customer Retrofits

The Project could also include the retrofit of certain customers' irrigation systems (those at Lincoln Park and Golden Gate Park, for example) to bring the systems into compliance with California Department of Public Health Services Title 22 and Title 17 requirements, which regulates the production and use of recycled water. Retrofit work could include installing limited sections of pipeline, installing backflow preventors, and replacing noncompliant irrigation system components. The necessity of these upgrades is currently being researched by the SFPUC and will be analyzed in the EIR as applicable.

2.4.4 System Operations

The systems used to supply water for irrigation and commercial uses would operate year-round, with peak production occurring during the dry months of the year, which is usually April through October. When demand is low, portions of the treatment facilities could be placed in standby mode or operate at reduced output. Storage reservoirs in the distribution system would be used to balance daily demands.

The primary pump station at the new proposed recycled water treatment facility at the Oceanside WPCP would operate as needed to meet demands and to fill reservoirs in the distribution system. The other pump stations in the system would operate on an as-needed basis to maintain pressure in the system. The reservoirs and pipes would be flushed periodically to maintain water quality. The flushed water would be sent to the combined sewer system and re-treated at the Oceanside WPCP. Blowoff valves would be placed at low points and dead ends of the distribution system to ease flushing.

Increases in energy demand from the new recycled facilities will be discussed in the EIR.

2.5 Approvals Required

The SFPUC may be required to obtain the following approvals for project construction and operation:

- Determination of consistency with Local Coastal Program from the San Francisco zoning administrator and/or the California Coastal Commission for construction within the Coastal Zone;
- Amendment of Golden Gate Park Master Plan (only needed for sites in Golden Gate Park) from the San Francisco Planning Commission;
- Authority to Construct and Permit to Operate from the Bay Area Air Quality Management District;
- Authorization under the General Construction Permit from the State Water Resources Control Board (SWRCB);
- Waste discharge requirements and/or National Pollutant Discharge and Elimination System (NPDES) authorization from the Regional Water Quality Control Board (RWQCB) for potential discharges into Waters of the State;
- EIR certification from the San Francisco Planning Commission; and
- Project approval from the San Francisco Public Utilities Commission.

2.6 Schedule

Construction of the Project is expected to begin in November 2010 and end in March 2013. Construction hours would vary depending on location of construction. More specific information regarding work hours would be presented in the EIR.

3.0 Environmental Analysis

3.1 Environmental Issues to Be Addressed In the EIR

The EIR will address all environmental issue areas required under CEQA. The EIR will address potential impacts due to construction and operation activities and will propose mitigation measures for impacts considered to be potentially significant. The following sections describe a few of the key environmental issues that will be addressed by the EIR.

3.1.1 Surface Water Resources – Hydrology and Water Quality

Since the recycled water treatment facility would be located near the ocean and within the San Francisco coastal zone, construction of the facility could affect coastal waters. Construction of storage and distribution facilities at Golden Gate Park and Lincoln Park could have further water quality impacts. In addition, the recycled water produced at the proposed recycled water treatment facility would have to meet Title 22 requirements as required by the SWRCB and the California Department of Health Services. Potential effects to be evaluated include:

- Changes in surface water quality or flow from construction and operations activities
- Alteration of existing drainage patterns

-
- Indirect effects (e.g., effects on other beneficial uses of the surface water, if applicable)

3.1.2 Groundwater Resources – Hydrogeology and Water Quality

Construction and operation of the Project could affect local groundwater resources in the project vicinity and potential service areas. Potential effects to be evaluated include:

- Changes in shallow groundwater levels and recharge rates
- Changes in groundwater quality
- Indirect effects (e.g., effects on other beneficial uses of the groundwater)

3.1.3 Biological Resources

The proposed project could temporarily affect terrestrial habitats and wildlife as a result of proximity to construction activities, including noise, vibration, dust, and erosion effects. Operation of the recycled water treatment facility and pumps could have long-term impacts on biological resources from noise. Potential effects to be evaluated include:

- Changes in the extent of habitat or habitat quality for plants and wildlife
- Effects on special-status species
- Effects on species populations and the ability to maintain self-sustaining levels
- Interference with wildlife species movement corridors or migration
- Effects on San Francisco Zoo animals from construction and operation of the new proposed recycled water treatment facility within the Oceanside WPCP

3.1.4 Geology, Soils, and Seismicity

Construction of the new treatment facility, reservoirs, pumps, and distribution pipelines could result in site-specific impacts on or from local geology and soils conditions. Potential effects to be evaluated include:

- Seismic hazards and/or increased exposure of people and structures to seismic hazards
- Increased exposure of people or structures to geologic hazards (such as liquefaction, poor soil conditions, or unstable slopes) from construction of the facilities in identified hazard zones
- Erosion potential from construction excavation

3.1.5 Cultural Resources

Construction (mainly excavation) of the Project facilities could affect historical or cultural resources. Potential effects to be evaluated include:

- Effects on archaeological and paleontological resources
- Effects on nearby historic/architectural resources
- Effects on Indian Trust assets and Native American resources

3.1.6 Land Use, Plans, and Policies

Construction and operation of the proposed project could affect adjacent land uses. The majority of project construction would occur in residential areas. The EIR will provide an overview of the potential land use impacts associated with implementation of the proposed project. Potential effects to be evaluated include:

- Conflict (if any) with established local, regional, state, or federal plans, policies, and/or guidelines
- Disruption of an established community
- Inconsistency or incompatibility with existing or planned land uses
- Short-term disruption of neighboring land uses during construction
- Operations effects on adjacent land uses, such as the San Francisco Zoo

3.1.7 Recreation

Construction could temporarily disrupt recreational uses in the vicinity of Golden Gate Park, Lincoln Park, and other smaller parks in the area as a result of noise, dust, and temporary access restrictions. The EIR will evaluate the effects of the Project on such recreational resources, including effects of recycled water use at recreation sites. Potential effects to be evaluated include:

- Effects on recreational facilities within and adjacent to the proposed facilities and recycled water customer sites
- Effects on access to recreational areas during construction

3.1.8 Traffic, Transportation, and Circulation

Construction of the proposed project could have temporary effects on traffic, transportation, and circulation resulting from construction activities. Potential effects to be evaluated include:

- Effects on the regional and local transportation network
- Effects of adding new vehicle trips (from construction machinery and workers) and contributing to increased traffic congestion during construction and/or operation of proposed facilities
- Effects on traffic safety in the vicinity of the construction site
- Effects on emergency access in the vicinity of the construction site

3.1.9 Air Quality

Effects on air quality from the proposed project would largely be associated with construction activities and, as such, would be temporary and short term. However, operation of the proposed recycled water treatment facility and the associated pumping could result in long-term air quality impacts. Potential effects to be evaluated include:

- Effects of construction emissions, including dust, and greenhouse gases (GHG)
- Consistency with regional air quality plans
- Consistency with state laws regarding GHG, and compliance with Assembly Bill 32

3.1.10 Noise and Vibration

Noise and vibration effects from implementation of the Project would be associated with facility and pipeline construction activities and, as such, would be temporary and short term. However, operation of the proposed pumps and the new treatment facility could create permanent noise impacts. Potential effects to be evaluated include:

- Effects of construction noise and vibration on sensitive receptors in the vicinity of the construction activities, as well as on historic buildings and architecture
- Effects of operation and maintenance activities on noise levels in the area adjacent to the construction

3.1.11 Public Services, Utilities, and Energy

The EIR will review the potential effects of the Project on utilities, public services, and energy resulting from both construction and operation and maintenance of the project. Potential effects to be evaluated include:

- Increases in energy demands and potential need for expansion of power facilities
- Disruption of services (such as water or power) during construction
- Disruption of fire and police services during construction, if any
- Relocation of utilities (if necessary)
- Effects of solid waste disposal on nearby landfills

3.1.12 Hazards and Public Safety

Construction of the proposed project could require use of hazardous materials. Use of recycled water in publicly accessible locations could raise concerns about water quality and health. Potential effects to be evaluated include:

- Potential to encounter hazardous materials or waste during construction or the potential to release hazardous materials during construction or operation
- Potential health and safety issues related to use of recycled water (for nonpotable uses)

3.1.13 Visual Quality

Effects on visual quality in the project area associated with construction and implementation of the Project could result from construction activities that would remove vegetation or otherwise alter the existing landscape, and from potential effects caused by introducing additional built features within scenic areas. Potential effects to be evaluated include:

- Degradation or obstruction of scenic views and designated scenic resources due to construction of the new recycled water treatment facility, reservoirs, and pump stations

3.1.14 Other Environmental Issues

The EIR will evaluate any potential growth-inducement impacts that could result from implementation of the Project. The EIR will also address whether the Project could result in impacts that would be significant when combined with the impacts of other SFPUC or non-SFPUC projects occurring in the same geographic area as the Project and at the same time.

3.2 Alternatives

CEQA requires that an EIR evaluate a reasonable range of feasible alternatives to the project, or to the location of the project, that would attain most of the basic project objectives but that could avoid or substantially lessen any of the significant effects of the project. The EIR will identify the potentially significant impacts of the proposed project. The findings of the EIR impact analysis will guide the refinement of an appropriate range of alternatives to be evaluated in the EIR that would avoid or substantially lessen significant impacts, while still meeting the project objectives. Any alternatives suggested during the public scoping period would also be considered. The EIR will also include a discussion of impacts associated with the No Project Alternative.

References

- City of Daly City, San Francisco Public Utilities Commission, San Francisco Department of Parks and Recreation (Daly City/SFPUC/SF Recreation and Parks), Harding Park Recycled Water Feasibility Study, 2007)
- San Francisco Public Utilities Commission (SFPUC), Recycled Water Master Plan for the City and County of San Francisco, 2006.
- San Francisco Public Utilities Commission (SFPUC), Lake Merced Water Level Restoration Alternatives Analysis Report, January 2008a.
- San Francisco Public Utilities Commission (SFPUC), Revised Internal Draft of San Francisco Westside Recycled Water Project Alternatives Analysis Report, January 2008b.

APPENDIX B

Scoping Meeting Transcripts

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION
SAN FRANCISCO PLANNING DEPARTMENT

WESTSIDE RECYCLED WATER PROJECT

PUBLIC SCOPING MEETING
JANET POMEROY CENTER
207 SKYLINE BOULEVARD
SAN FRANCISCO, CALIFORNIA
MONDAY, JUNE 16, 2008 - 7:00 P.M.

ORIGINAL

REPORTED BY: DEBORAH FUQUA, CSR #12948

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A P P E A R A N C E S

CARRIE DOVZAK
CEQA Coordinator
San Francisco Planning Department

LESLIE WONG
Project Engineer, Department of Public Works

STEVE BROWN
Environmental Project Manager

SUZANNE GAUTIER
Communications and Public Outreach Manager
San Francisco Public Utilities Commission

BARBARA PALACIOS
Project Manager
San Francisco Public Utilities Commission

SPEAKERS

Dick Morten

1 Monday, June 16, 2008

6:14 o'clock p.m.

2 ---o0o---

3 P R O C E E D I N G S

4 CARRIE DOVZAK: Good evening. My name is Carrie
5 Dovzak of the San Francisco Planning Department. And
6 I'm tonight's moderator for the scoping meeting for the
7 San Francisco Westside Recycled Water Project.

8 We're going to look at the meeting agenda
9 quickly. We're going to first have introductions. I
10 think there's more staff here than people, or it might
11 be about half and half. And then I'm going to give a
12 short overview of the environmental review process
13 before handing the mike over to Barbara Palacios, who
14 will give a short overview of the WSIP program and the
15 project itself. Then we'll go into the public comment
16 period, we'll have some closing remarks, and we can go
17 home.

18 I think most of you have signed in at the
19 table. And if you haven't picked up the materials for
20 meeting, they're at the table in the back.

21 If you'd like to speak tonight, we have
22 speaker cards. Please write your name legibly so I can
23 read your name. And if you don't want to speak, we
24 also have comment cards that you can fill out and hand
25 in, either this evening or you can send them in or fax

1 them in or I'll give you more information later on if
2 you want to contact me by e-mail.

3 Okay. So tonight the meeting objective is for
4 the San Francisco Planning Department to receive public
5 comments on the proposed scope and focus of the
6 environmental impact report for the project. And all
7 of you have, I assume, received notice of preparation,
8 or NOP, in the mail for the environmental impact
9 report.

10 And so tonight, we want to gather public
11 comment on the environmental effects of the proposed
12 project, the methods of assessment of the project,
13 mitigation measures to reduce the impacts or
14 alternatives to the project as well. And this is your
15 opportunity to assist the Planning Department by
16 sharing any information that you might have that might
17 be useful for the preparation of the environmental
18 impact report.

19 And your comments could help us identify the
20 significant environmental issues, determine the depth
21 of those issues, as well as identify reasonable project
22 alternatives. So we're basically here tonight to
23 listen to you. But we'll have a small presentation
24 beforehand.

25 Tonight, I'd like to introduce some members of

1 our team. Like I said, I'm the CEQA coordinator for
2 the project. I have over 20 years of experience in the
3 environmental field as a geologist and environmental
4 planner. And my role in the project is to act as a
5 liaison between the SFPUC and the various consultants
6 who are working on the environmental impact report and
7 the other documents that support it.

8 Barbara Palacios is our project manager.
9 She's been with the PUC for 12 years and has 15 years
10 of experience in water and wastewater treatment
11 projects, both with the PUC and the private sector.
12 She is responsible for all aspects of the project and
13 ensures that the delivery of this project is on
14 schedule and within the budget.

15 Leslie Wong -- she's all with the way in the
16 back there. She's the project engineer for the
17 project. She's been with the Department of Public
18 Works for over 15 years. And she's responsible for
19 technical aspects of the project and ensures the design
20 accuracy and quality.

21 And Steve Brown, there in the corner who's
22 joined us, is the EPM, or the environmental project
23 manager for the project. He coordinates and manages
24 the environmental review process between the PUC and
25 the Planning Department. And he has over 20 years of

1 experience working on wastewater and water projects in
2 California.

3 And Suzanne Gautier also, all the way in the
4 back, is the communications and public outreach manager
5 for the Water Enterprise System of the PUC. She's been
6 with the PUC for four years and has over 30 years of
7 experience in communications and public outreach.

8 So I'd just like to take a few seconds to
9 introduce the environmental review process, and hold
10 your comments until the end -- although we have such a
11 small crowd that maybe you could jump in now and then.

12 Okay. So projects require environmental
13 review under CEQA, the California Environmental Quality
14 Act, before they can be considered for approval. And
15 for all of the SFPUC projects, CEQA is implemented by
16 the San Francisco Planning Department.

17 CEQA is basically intended to produce
18 informational documents about a project's potential
19 environmental impacts. And when I say "environmental
20 impacts," they could be anything from traffic impacts,
21 biological impacts, archeological resource impacts, or
22 other things that you can perhaps think of that may
23 affect the project in your neighborhood.

24 So the CEQA objectives are to present the
25 environmental impacts of the proposed project and then

1 identify ways to avoid or reduce these environmental
2 impacts.

3 And then, because we have one complete
4 document, we can support the agency decision-making
5 process and promote interagency coordination because
6 we're all on the same page. And lastly but most
7 importantly, it encourages public participation.

8 The notice of preparation says just that.
9 It's the notice of preparation for environmental impact
10 report. And this report provides detailed description
11 of the project and surrounding environment. It
12 identifies the potential environmental effects of the
13 project and then identifies ways to avoid or reduce
14 significant environmental effects through mitigation or
15 alternatives to the project.

16 So your input at this meeting in written form
17 or by e-mail or fax, will affect the content and
18 structure of the EIR. EIR's are built from information
19 about the proposed project, scientific data and
20 analysis, expression of public concern and interests,
21 and response to those concerns.

22 So now I'd like to introduce Barbara Palacios,
23 who is going to talk about the WSIP program in general
24 and our project.

25 BARBARA PALACIOS: As Carrie mentioned, my name is

1 Barbara Palacios. I'm the SFPUC project manager for
2 the San Francisco Westside Recycled Water Project.

3 I'd like to start by giving an overview of the
4 SFPUC and its Hetch Hetchy Regional Water System.

5 SFPUC operates the Hetch Hetchy Regional Water
6 System, which was built over 140 years ago. It's a
7 complex network of tunnels, pipelines, and reservoirs
8 that convey water supplies from Hetch Hetchy Reservoir
9 in the Yosemite Valley as well as local reservoirs.

10 About 85 percent of the SFPUC's water supply
11 comes from the Hetch Hetchy Reservoir, which is in
12 Yosemite Valley. And the remaining 15 percent comes
13 from our local watersheds in the East Bay. We've got
14 Calaveras Reservoir in the East Bay, and Crystal
15 Springs Reservoir in San Mateo County in the Peninsula.

16 The SFPUC maintains approximately 280 miles of
17 pipeline, 60 miles of tunnels, two water treatment
18 plants, and multiple reservoirs and pump stations to
19 deliver water to its wholesale and retail customers.
20 The SFPUC serves 2.4 million customers in Alameda, San
21 Mateo, Santa Clara, and San Francisco counties. About
22 two thirds of our water supply goes to our 28 suburban
23 water agencies, which are depicted in this map. And
24 the remaining one third of our water goes to our retail
25 customers in San Francisco.

1 November 2002, the SFPUC, with the assistance
2 of its suburban water agencies, embarked on a
3 multi-year \$4.3 billion capital improvement program
4 referred to as the Water System Improvement Program to
5 repair and upgrade the complex water delivery system.

6 The WSIP includes more than 70 projects that
7 will help the SFPUC meet water quality requirements,
8 improve the system's ability to deliver water after
9 earthquakes, and to help meet current and future water
10 supply goals. One of the WSIP projects proposed to
11 help meet these water supply objectives is with San
12 Francisco Westside Water Treatment Project.

13 So why do water agencies like the SFPUC pursue
14 the development of recycled water? Well, it's pretty
15 evident that developing recycled water for
16 non-drinking-water uses ensures that we save the purest
17 of our water sources for the highest use, and that's
18 for drinking.

19 Recycled water is wastewater that's undergone
20 multiple treatment steps to remove contaminants so that
21 it can be reused. Recycled water is used for a variety
22 of non-drinking uses such as those listed here. It's
23 useful for landscape irrigation, irrigation of golf
24 courses and parks. It's used in some areas for the
25 recharge of lakes and ponds. It's also used for toilet

1 and urinal flushing, concrete mixing and dust control,
2 industrial and commercial air conditioning, and it's
3 also used for agricultural irrigation.

4 Recycled water is widely used throughout the
5 country. In California, 160 cities produced and used
6 over 63 billion gallons of recycled water in 2002.
7 Here's a list of major cities and water agencies that
8 are using recycled water, including our neighbor city,
9 Daly City, which is using recycled water to irrigate
10 the Olympic and San Francisco golf clubs.

11 Recycled water is highly regulated. In
12 California, the primary regulations include Title 22,
13 which addresses the allowable uses of recycled water as
14 well as the treatment and water quality requirements,
15 and Title 17, which addresses the distribution of
16 recycled water and the safety measures to keep the
17 pipeline systems separate from the drinking water
18 system.

19 And multiple agencies have a role in enforcing
20 recycled water regulations and ensuring the safety of
21 recycled water.

22 So why recycled water? Our water supplies are
23 available in limited quantities which are further
24 constrained in periods of drought. By developing
25 recycled water as new supply, the SFPUC increases its

1 ability to serve its customers. The recycled water is
2 drought resistant, and it's an investment in our
3 future.

4 Since a goal of the WSIP is to provide the
5 required water supply to meet current and long-term
6 water needs, the proposed project really serves towards
7 meeting that goal. Specifically, the project would
8 diversify our water supplies and help meet long-term
9 water demands in the regional water system. Recycled
10 water would provide a new supply that's both reliable
11 and drought resistant. And developing recycled water
12 allows us to reduce the use of drinking water for
13 irrigation purposes by supplying those demands with
14 recycled water.

15 The proposed Westside Recycled Water Project
16 will produce recycled water for irrigation and other
17 non-drinking purposes. The project would not provide
18 recycled water for residential customers, but it will
19 be providing water to irrigate public parks and spaces
20 including Golden Gate Park, Lincoln Park and Golf
21 Course, the zoo, and selected medians and other
22 landscape areas.

23 The proposed project includes the construction
24 of three major components. It will include the
25 construction of a treatment facility that will produce

1 an average of 2 million gallons per day of recycled
2 water. It includes storage reservoirs that will store
3 recycled water to help meet peak daily demands and a
4 distribution system which includes pump stations and
5 pipelines to move recycled water between storage
6 facilities and to customers.

7 The project will produce disinfected tertiary
8 recycled water, which is virtually free from pathogens
9 and viruses. The Oceanside plant, which is located
10 along Great Highway, is the treatment facility that
11 treats all the residential wastewater on the west side
12 of the city. And the plant currently produces what is
13 called secondary effluent.

14 The proposed project would add an additional
15 treatment step consisting of membrane filtration and
16 ultraviolet light disinfection to produce the recycled
17 water. This is an aerial view of the existing
18 Oceanside plant located along the Great Highway. The
19 plant is mostly buried underground. The zoo is just up
20 to the north of the treatment plant. Here, we've got
21 the Great Highway.

22 The proposed site of the treatment and storage
23 and one of the pump stations is within the berm area
24 located just to the south of the west entrance to
25 plant.

1 The proposed project would also include the
2 construction of two new reservoirs -- a
3 1.5 million-gallon reservoir at the Oceanside plant,
4 and a 1 million-gallon underground reservoir at Lincoln
5 Park. It would also expand the existing
6 2 million-gallon reservoir at Golden Gate Park for an
7 additional 2 million gallons.

8 This aerial shows the location of the existing
9 Golden Gate Park reservoir, which is somewhere near
10 Crossover Drive and John F. Kennedy. The existing
11 2 million-gallon reservoir currently stores groundwater
12 used for irrigation at the park. And the proposed
13 project would expand that by an additional 2 million
14 gallons. And that storage would also be buried as the
15 current storage is. So the project would convert both
16 the existing and the proposed expansion storage to
17 recycled water storage. And there's actually a pump
18 station here now. And the project would extend that
19 pump station to provide the added pumping capacity
20 needed by the project.

21 A new 1 million-gallon underground reservoir
22 would also be constructed in the vicinity of 35th and
23 Clement in the Lincoln Park area. This water will
24 serve irrigation of Lincoln Park and the golf course.
25 A new above-ground pump station would also be

1 constructed at the site.

2 Also as part of the current engineering
3 activities, we are investigating an alternative to
4 these new facilities, which would involve serving the
5 Lincoln Park area from the Golden Gate Park reservoir.
6 The proposed project would include the construction of
7 a new distribution system which would consist of pump
8 stations and pipelines because recycled water is
9 conveyed separately from drinking water.

10 This figure provided a good schematic overview
11 of the project, including the customers that we propose
12 serving in the project -- Lincoln Park in the north,
13 Golden Gate Park, Stern Grove, Larson Park, Parkside
14 Park and Pine Lake Park. The zoo would also be one of
15 our customers, and Pine Lake Park. Larsen Treatment
16 Plant is located in the southern end of the city near
17 Lake Merced. Our treatment facility would be located
18 at the same Oceanside plant.

19 Pump stations and pipelines would convey
20 water, the treated recycled water, from the Oceanside
21 site up to the storage in Golden Gate Park. And pump
22 stations here would also convey that recycled water up
23 to the storage in Lincoln Park. The schematic shows
24 two alternative alignments for the main pipeline
25 between the treatment plant and Golden Gate Park. And

1 we are in the process of gathering utility information
2 for both alignments which will help in the
3 decision-making process.

4 The construction of these proposed project
5 components is anticipated to begin in late 2010 and
6 continue through early 2013; however, it should be
7 noted that construction activities related to the
8 pipelines should last about three weeks on a typical
9 city block along the proposed pipeline.

10 So again, late 2010 and continue through 2013,
11 and proposed work hours are between Monday through
12 Friday from 7:00 a.m. to 5:00 p.m. And before any
13 construction begins, there will be 30 days of notice
14 that would be provided to the neighborhood that would
15 be impacted. And additional notice would be provided
16 72 hours in advance of construction activities within a
17 city block.

18 Once we have recycled water, it will be used
19 in accordance with all the applicable regulations.
20 Wherever recycled water is used, there's going to be
21 signage and identification and other markings to
22 indicate that the water is actually recycled water.

23 Each customer that's receiving and using
24 recycled water will have a certified site supervisor
25 that's responsible for the operations. And there will

1 be cross-connection control which will ensure the
2 complete separation of recycled water from the potable
3 supply.

4 So just to wrap up, developing recycled water
5 for non-drinking uses will ensure that the purest
6 sources of water will be available for the highest use,
7 drinking water.

8 Now I'm about to hand it back over to Carrie.

9 CARRIE DOVZAK: Thank you, Barbara.

10 And for the people who just came in, I'm
11 Carrie Dovzak of the San Francisco Planning Department,
12 and I'm the CEQA coordinator.

13 Barbara Palacios is the project manager of the
14 project. After the meeting, if you have any questions,
15 you can grab us.

16 Before we start the public comments, I'd like
17 to go over the CEQA objectives one more time. And that
18 is, as you can see, to present the environmental
19 impacts of the proposed project, identify ways to avoid
20 or reduce environmental impacts. We want to support
21 the agency decision-making process and promote
22 interagency coordination and, of course, encourage
23 public participation in the process.

24 So before we start the public comments here,
25 we would like to go over the ground rules.

1 Please submit your speaker cards if you have
2 them. And if you don't have them, we have some extras.
3 Does anyone need a speaker card? Wait until your name
4 is called, and state your name and speak clearly, and
5 since we have just a few people, I don't really think
6 we have to limit our comments to three minutes. But if
7 you'd like to speak a little bit longer, please do.

8 And if you don't want to speak, we do have
9 comment forms that you could fill out and hand in at
10 the end of the meeting or send them in or fax them in,
11 or I'll give I more information at the end if you want
12 to send me an e-mail.

13 Okay. So we'd like to hear from you now, if
14 there's any speaker card? Come on; don't be shy.

15 You can come up here.

16 Dick Morten?

17 DICK MORTEN: Yes.

18 My name is Dick Morten. And I live in the
19 neighborhood. And the alignment that I guess went at
20 41st Avenue, it seems that you have missed potential
21 customers there, because there is a -- the park and
22 Vicente, that's very near to 41st Avenue. And then if
23 you go West Sunnyside Park, you've got SI. And if you
24 went up to Sunset Boulevard alignment maybe, try to get
25 to Sunset Recreation Center, which is undergoing

1 complete rehabilitation. So there's additional
2 potential customers that might want to be considered
3 and added to this.

4 If you're doing the kind of road work,
5 particularly through the neighborhoods and all these
6 alignments, perhaps the PUC should provide a benefit to
7 those property owners in terms of tree landscaping and
8 use of recycled water to keep those trees going along
9 there, and the people would get a benefit from having
10 the disruption right in front of their house for a
11 while.

12 I had suggested earlier times that the --
13 again, depending on alignment, of whether or not to
14 hang the northbound pipe in the Westside transport box.
15 Then you wouldn't have to disrupt roadway at all. And
16 they were saying that that had been explored, but it
17 still may be some consideration.

18 Of course, it's just outside the door of where
19 the plant's supposed to be. That box is very close.

20 The other areas that would be of interest --
21 and Bert is here -- is the potential -- and where would
22 expansion go if we wanted to have Park Merced, S.F.
23 State, Lowell High School, you know, a number of
24 potential users on that side of Lake Merced, you know,
25 where would capacity be able to be added to service

1 some fairly significant customers at some potential
2 time?

3 And now I can't read my own writing. So I'll
4 come back maybe a little bit later.

5 CARRIE DOVZAK: Okay. Thank you very much.
6 Anyone else? Okay. Well, let's -- like I said before,
7 if you don't want to speak tonight, you have another
8 opportunity to come to the same meeting tomorrow night
9 at the Golden Gate Park Senior Center on the north side
10 of Golden Gate Park at 37th.

11 And also, I think we have information at the
12 table or on your handouts on where to send your
13 comments if you want to deliver them in written form.
14 And you could either e-mail me -- and my e-mail address
15 is right there, CarrieDovzak@SFGov.org. Or you could
16 send a letter by fax or U.S. mail and just put
17 "Attention Bill Wycko," who is our acting environmental
18 review officer at City Planning. And please write
19 "S.F. Planning Department, Westside Recycled Water
20 Project," so he knows to hand it off to me.

21 And also if you have any questions about the
22 project, about the technical aspects of it, there's
23 information on how to contact some people at the PUC.
24 And if you have further questions about the
25 environmental review, you can call me, and my number is

1 there as well.

2 So thank you very much for attending tonight's
3 meeting. And you're welcome stay around the back and
4 look at the posters and ask questions of the engineers
5 and the communications people from the PUC who are here
6 and me as well. Thank you very much.

7 (Whereupon, the proceedings concluded
8 at 7:09 o'clock p.m.)

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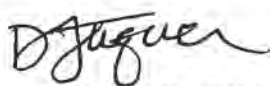
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STATE OF CALIFORNIA)
) ss.
COUNTY OF MARIN)

I, DEBORAH FUQUA, a Certified Shorthand Reporter of the State of California, duly authorized to administer oaths pursuant to Section 8211 of the California Code of Civil Procedure, do hereby certify that the foregoing proceedings were reported by me, a disinterested person, and thereafter transcribed under my direction into typewriting and is a true and correct transcription of said proceedings.

I further certify that I am not of counsel or attorney for either or any of the parties in the foregoing proceeding and caption named, nor in any way interested in the outcome of the cause named in said caption.

Dated the 9th day of July, 2008.


DEBORAH FUQUA
CSR NO. 12948

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION
SAN FRANCISCO PLANNING DEPARTMENT

WESTSIDE RECYCLED WATER PROJECT

PUBLIC SCOPING MEETING
GOLDEN GATE SENIOR CENTER
6101 FULTON STREET
SAN FRANCISCO, CALIFORNIA
TUESDAY, JUNE 17, 2008

ORIGINAL

REPORTED BY: VICKI HAINES, CSR #5995

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A P P E A R A N C E S

CARRIE DOVZAK
CEQA Coordinator
San Francisco Planning Department

LESLIE WONG
Project Engineer, Department of Public Works

STEVE BROWN
Environmental Project Manager

SUZANNE GAUTIER
Communications and Public Outreach Manager
San Francisco Public Utilities Commission

BARBARA PALACIOS
Project Manager
San Francisco Public Utilities Commission

SPEAKERS

Richard Hansen
Shirley Hansen
Gloria Goss

1 Tuesday, June 17, 2008

6:38 P.M.

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P R O C E E D I N G S

4 MS. DOVZAK: Good evening, everybody. My
5 name is Carrie Dovzak. I'm with the San Francisco
6 Planning Department, and I'll be your moderator for
7 tonight's meeting. Thank you for coming to the second
8 CEQA meeting for the San Francisco Westside Recycled
9 Water Project. We had our first meeting last night at
10 the southern side for the residents who live around
11 there, and tonight is the second one for the residents
12 who live up here.

13 So I'd like to go over the agenda for
14 tonight's meeting. First I'm going to do a few
15 introductions of the staff who are present here, and
16 then we're going to have a short overview. I'm going to
17 give a short overview of the environmental review
18 process for the project, and then I'm going to introduce
19 Barbara Palacios of the PUC who will give a short
20 summary of the WSIP Program, the Water System
21 Improvement Program, and then an overview of the project
22 itself. Then we'll have public comments and then
23 closing remarks.

24 I just wanted to remind people that, if you
25 want to speak tonight, if you want to comment on the

1 project, please pick up a speaker card at the table or
2 you could raise your hand so we could bring you one, and
3 write your name clearly on the card, and then I'll call
4 you up when the comment period starts.

5 You don't have to speak tonight to make a
6 comment. You could also send them in, and I have
7 information in the back or on the pieces of paper that
8 you took from the table that has the address of the
9 Planning Department, also my e-mail address and a fax
10 number or phone number, if you want to call me or
11 someone from the PUC to talk about the project itself.
12 And please hold your comments until the end of the
13 presentation.

14 So our meeting objective tonight is for the
15 San Francisco Planning Department to receive public
16 comments on the proposed scope and focus of the
17 environmental impact report for the project. And our
18 objective is to gather public comment on the
19 environmental effects of the project, the methods of
20 assessment for the proposed project, mitigation measures
21 to reduce the impact of the proposed project and
22 alternatives. This is your opportunity to assist us in
23 the Planning Department by sharing any information that
24 you have that will be helpful in preparation of the
25 environmental impact report, and we are here tonight to

1 listen to your comments. That will help us collect
2 information for use by the EIR authors who developed the
3 draft EIR document.

4 So, like I said, my name is Carrie Dovzak,
5 and I'm the CEQA coordinator. I'm a geologist, and I've
6 had over 25 years of experience in the environmental
7 field as a geologist and planner. My role in this
8 project is to act as a liaison between San Francisco PUC
9 and the various consultants who are working on this
10 project and the documents.

11 Barbara Palacios, right here, is the project
12 manager. She's worked with the PUC for 12 years and has
13 15 years of experience in water and wastewater treatment
14 projects, both with the PUC and the private sector. She
15 is responsible for all aspects of the project and
16 ensures the delivery of the project is on schedule and
17 within budget.

18 Leslie Wong, in the back right there, works
19 for Department of Public Works, and she's the project
20 engineer. She has had over 15 years of experience and
21 is responsible for all the technical aspects of the
22 project and ensures the design accuracy and quality of
23 the project.

24 Steve Brown, right here in this light-blue
25 shirt, is the environmental project manager for the

1 project and coordinates and manages the environmental
2 review process between the PUC and the Planning
3 Department, and he has over 20 years of experience
4 working with wastewater and water projects in
5 California.

6 And Michele Yeofay (phonetic) in the back --
7 did I say your name right, Michele?

8 MS. YEOFAY: Yeah.

9 MS. DOVZAK: She's our representative this
10 evening for the Communications Department for the PUC.

11 Just let me give you a short summary again
12 on the environmental review process. And I apologize,
13 yesterday I had a little podium so I didn't have to hold
14 these papers, but -- so this meeting tonight is one of
15 the requirements of the California Environmental Quality
16 Act. This is the scoping meeting for the project.
17 Every project requires environmental review under CEQA
18 before they can be considered for approval. And for the
19 Public Utilities Commission CEQA is implemented by the
20 San Francisco Planning Department. It's intended to
21 produce informational documents about a project's
22 potential environmental impact. And when I'm talking
23 about environmental impact, they could be traffic
24 impact, they could be biological resource impact,
25 archaeological impact, air quality impact, water

1 quality, anything that's about the environment. But I
2 think people think of trees and bunnies, but they don't
3 really think of other impacts like traffic and noise.

4 So the project is sponsored by the City of
5 San Francisco, which is sponsoring it through the Public
6 Utilities Commission, and we are called the lead agency
7 for implementing this review process. The CEQA
8 objectives are to present the environmental impacts of
9 the proposed project and then identify ways to reduce or
10 avoid these environmental impacts and support the
11 decision-making process and promote interagency
12 coordination by producing this environmental impact
13 report. And lastly, but most importantly, is to
14 encourage public participation in the process.

15 So when we make an environmental impact
16 report, what does it have in it? It provides a detailed
17 description of the project surrounding environment; it
18 identifies the potential environment effects of the
19 project; and, most importantly, identifies ways to avoid
20 or reduce through mitigation or alternative.

21 Your input at this meeting, either by
22 speaking or written form, will affect the content and
23 the structure of the environmental impact report. EIR
24 is a build from information about the proposed project,
25 scientific data and analysis, expression of public

1 concerns and interest and then our responses to these
2 concerns.

3 So now I'd like to introduce Barbara
4 Palacios, and she's going to give you an overview of the
5 program in general and then the project itself.

6 MS. POLACIOS: Good evening. As Carrie
7 mentioned, my name is Barbara Polacios, and I'm the
8 SFPUC project manager for the San Francisco Westside
9 Recycled Water Project.

10 I'd like to start off by giving a brief
11 overview of the SFPUC Hetch Hetchy Regional Water
12 System. The SFPUC operates the Hetch Hetchy Regional
13 Water System which was built over 140 years ago. It's a
14 complex network of pipelines and tunnels that convey
15 water to over 2.4 million customers in the Bay Area.
16 About 85 percent of the SFPUC's water supply comes from
17 the Hetch Hetchy reservoir in the Yosemite Valley, and
18 the remaining 15 percent of our water supply comes from
19 our local watershed in the East Bay, the Calaveras
20 Reservoir, and in the Peninsula, the Crystal Springs
21 Reservoir. The SFPUC maintains approximately 280 miles
22 of pipeline, 60 miles of tunnel, two water treatment
23 plants and multiple reservoirs and pump stations to
24 deliver water to its wholesale and retail customers.

25 The SFPUC serves water to over 2.4 million

1 customers in Alameda, San Mateo, Santa Clara and San
2 Francisco Counties. About two-thirds of our water
3 supply goes to our 28 suburban water agencies that are
4 depicted in this map, and the remaining one-third of our
5 water goes to our retail customers in San Francisco.

6 In November 2002 the SFPUC with the
7 assistance of its wholesale water agencies embarked on a
8 multi-year 4.3 billion dollar capital improvement
9 program, referred to as the Water System Improvement
10 Program, to repair and upgrade its complex water
11 delivery system. The Water System Improvement Program
12 includes more than 70 projects designed to help SFPUC
13 meet water quality requirements, improve the system's
14 ability to deliver water after earthquakes and to help
15 meet current and future water supply goals.

16 One of the WSIP projects proposed to help
17 meet these water supply objectives is the San Francisco
18 Westside Recycled Water Project.

19 So why do agencies like the SFPUC pursue the
20 development of recycled water? Well, this statement
21 pretty much explains why recycled water is important.
22 Developing recycled water for non-drinking uses would
23 ensure that the purest sources of water will be
24 available for the highest use and that's drinking.

25 Recycled water is highly treated wastewater

1 that has gone through multiple treatment steps to remove
2 contaminants so that it can be reused. Recycled water
3 can be used for a variety of non-drinking uses such as
4 landscape irrigation, irrigation of golf courses and
5 parks, lake and pond recharge, toilet and urinal
6 flushing, concrete mixing, industrial and commercial air
7 conditioning, and it's also used for agricultural
8 irrigation.

9 Recycled water is widely used throughout the
10 country. In California 160 cities produced over 63
11 billion gallons of recycled water in 2002. Here's a
12 list of major cities and water agencies that are
13 currently using recycled water, including our neighbor
14 city of Daly City which is using recycled water today to
15 irrigate the Olympic and San Francisco Golf Clubs.

16 Recycled water is highly regulated. In
17 California the primary regulations include Title 22
18 which addresses the allowable uses of recycled water and
19 the treatment and quality requirements, and Title 17
20 which addresses the distribution of recycled water and
21 includes safety measures to keep the pipeline systems
22 separate from the drinking water systems, and there are
23 multiple agencies that have a role in enforcing recycled
24 water regulations and ensuring the safety of recycled
25 water.

1 So, again, back to why recycled water? As
2 you all have probably been following in the news lately,
3 water supplies are available in limited quantities which
4 are further constrained during periods of drought. By
5 developing recycled water as a new source of water
6 supply, the SFPUC increases its ability to serve its
7 customers. Recycled water is drought resistant and it's
8 an investment in our future.

9 Since the goal of the WSIP is to provide the
10 required water supply to meet current and long-term
11 water needs, the proposed recycled water project would
12 contribute towards meeting these goals. Specifically,
13 the project would diversify our water supplies to help
14 meet the water demands in the regional system. Recycled
15 water would be a new water supply that is reliable and
16 drought resistant, and the project would allow us to
17 reduce the use of drinking water for irrigation by
18 serving those demands with recycled water.

19 The proposed project will produce recycled
20 water for irrigation and other non-drinking purposes.
21 The proposed project would not be providing recycled
22 water to individual residential customers. But the
23 proposed project will be producing recycled water to
24 irrigate public parks and public spaces, including
25 Golden Gate Park, Lincoln Park and Golf Course, San

1 Francisco Zoo, selected street medians, such as the
2 Sunset median, and other landscaped areas.

3 The proposed project includes the
4 construction of three major components: A treatment
5 facility that will produce an average of two million
6 gallons per day of recycled water, storage reservoirs
7 that will store recycled water to meet peak daily
8 demands and a new distribution system which includes the
9 pumping stations and pipelines to move recycled water to
10 our customers.

11 This project will produce what's called
12 disinfected tertiary recycled water, which is virtually
13 free from bacteria. Treatment will occur at the
14 existing Oceanside Treatment Plant which treats all of
15 the wastewater on the west side of the city.

16 The proposed project will add an additional
17 level of treatment consisting of membrane filtration and
18 ultraviolet light disinfection to produce the tertiary
19 recycled water.

20 This is an aerial view of the Oceanside
21 Plant located along the Great Highway near the zoo.
22 Most of the plant is actually buried underground and is
23 somewhat out of site. The proposed site for our
24 recycled water treatment facility and the associated
25 storage reservoir and pump station is within this earth

1 and berm area just to the south of the west entrance to
2 the plant.

3 The proposed project would also include the
4 construction of two new reservoirs, one at the Oceanside
5 plants, a 1.5 million gallon reservoir and a one million
6 gallon underground reservoir in Lincoln Park. In
7 addition, the project will be expanding the existing
8 storage in Golden Gate Park by an additional two million
9 gallons, and that storage will also be underground.

10 This aerial shows the location of the
11 existing Golden Gate Park reservoir which is located
12 about in the center of the park near Crossover Drive.
13 The existing two million gallon reservoir which
14 currently stores ground water for park irrigation would
15 be expanded by an additional two million gallons which
16 would be buried as is the existing reservoir. There's
17 also an existing above-ground pump station at this site,
18 which would also be expanded as part of the project.

19 A new one million gallon underground
20 reservoir would be constructed in the vicinity of 35th
21 Avenue and Clement Street. This reservoir, along with
22 the new above-ground pump station, would serve recycled
23 water to the Lincoln Park and associated golf course.
24 However, as part of our current engineering work, we are
25 investigating an alternative to these new facilities

1 which would involve serving the Lincoln Park area
2 directly from Golden Gate Park by including additional
3 storage and pumping capacities within the Golden Gate
4 Park facilities to meet the irrigation needs of Lincoln
5 Park.

6 The proposed project would also include the
7 construction of a new distribution system consisting of
8 pump stations and pipelines in order to convey the
9 recycled water separately from drinking water. This
10 figure provides a good schematic overview of the
11 project. The customers that would be served by the
12 project include Lincoln Park, Golden Gate Park, the four
13 parks that are in the Stern Grove area, Stern Grove,
14 Larsen Park, Park Side Park and Pine Lake Park. The
15 project will also be serving the San Francisco Zoo. And
16 some of the recycled water will also be used within the
17 Oceanside plant.

18 In terms of major project components -- can
19 you go back? We have got the recycled water treatment
20 facility which is located within the Oceanside Treatment
21 Plant. This facility will include a storage reservoir
22 and a pump station that would serve -- pump water not
23 only to the users in the immediate area, but would also
24 pump water up to the Golden Gate Park reservoir. A pump
25 station in the Golden Gate Park Reservoir location would

1 then convey water up to Lincoln Park. This schematic
2 also shows two alternative alignments for the main
3 transmission pipelines that connect the treatment plant
4 up to the Golden Gate Park Reservoir. We are in the
5 process of gathering utility information for these two
6 options, and that information will factor into the
7 selection of the preferred alignment.

8 Construction of the project components is
9 anticipated to begin in late 2010 and continue through
10 early 2013. However, for the construction activities
11 related to the pipeline, those should last approximately
12 three weeks on any typical city block. And for all
13 construction projects that occur in the city there are
14 standard notification that are sent out to impacted
15 residents. Thirty days prior to construction
16 activities, a notice will be provided to the
17 neighborhood, and an additional 72-hours notice will be
18 provided in advance of any construction activity.

19 After all project components are constructed
20 and we start delivering and producing recycled water,
21 recycled water would be used in accordance with
22 applicable regulation. Wherever an area is being
23 irrigated with recycled water, there will be appropriate
24 signage and other markings to clearly identify the water
25 as recycled water. Each customer that uses recycled

1 water will also have a certified site supervisor to
2 ensure the proper irrigation practices are followed.

3 And, finally, the San Francisco Department
4 of Public Health will make sure that proper controls
5 have been implemented to ensure complete separation of
6 the recycled water pipelines from the drinking water
7 system.

8 This is to recap why this project is so
9 important. Developing recycled water for non-drinking
10 uses would ensure that the purest sources of water will
11 be available for the highest use: Drinking water.

12 I'll turn it back over to Carrie.

13 MS. DOVZAK: So right now we are at the
14 beginning of the environmental review schedule, and I
15 assume most of you have received the NOP in the mail,
16 which is the Notice of Preparation, and the Notice of
17 Preparation means we are going to prepare a
18 environmental impact report for the project. Scoping
19 meetings were yesterday and today, and the scoping
20 period ends, which means you can give me your comments
21 until July 8th. Right now the public review of the
22 draft EIR is scheduled for summer 2009, and the
23 certification of the final EIR by the Planning
24 Commission is scheduled for February 2010.

25 So, again, I'd like to reiterate what the

1 CEQA objectives are before I open up the floor for
2 public comment. It's to present environmental impacts
3 of the project, identify ways to avoid or reduce these
4 environmental impacts, support the agency
5 decision-making process and promote interagency
6 coordination by having one document and everyone being
7 on the same page, and, again, to encourage public
8 participation in the process.

9 So I'd like to just talk about the ground
10 rules for the comments session. Please submit your
11 speaker cards to speak. Wait until your name is called.
12 State your name clearly and speak clearly. And
13 oftentimes we limit comments to three minutes, but
14 because we don't have such a raging huge crowd here
15 tonight, I'm sure we could speak for a little bit
16 longer. And if you don't want to speak, please use the
17 comment form that Alisa is handing out and the
18 information on where to send those forms are written on
19 the form.

20 So does anyone need a speaker card? We will
21 give some people some time to -- do we have any cards?
22 Okay.

23 Richard Hansen, please. Can you please come
24 up because we have the court reporter.

25 MR. HANSEN: My name is Richard Hansen. I

1 live a couple blocks from here, and I want to
2 congratulate you guys on a very clear presentation and
3 giving us the handouts. I have an array of questions,
4 but I'll cover two sides of it.

5 Two million gallons a day is not all that
6 much water compared to the total water usage in San
7 Francisco, which I think is about 100 million gallons a
8 day. So this is, I hate to say, a pittance, but it's a
9 small, incremental contribution. But in the report that
10 comes out, I think it's imperative that you give a
11 figure on what the cost is and what the cost of the
12 alternative use of water, alternative source of water
13 getting out of Hetch Hetchy, what does that cost the
14 ultimate rate payer of the City of San Francisco?

15 On the other side of that, I see great
16 non-monetary benefits in the project in that if we have
17 a tragedy in the city, a tragedy on the pipeline from
18 Hetch Hetchy, somebody contaminates something, there's
19 sort of a hysteresis for the time that it takes people
20 to expel their wastewater, go down to the sewage
21 treatment plant, the water gets treated, recovered. In
22 that interim, which might be five days, ten days, this
23 water provides a means for putting out fires in case
24 there's something like 1906. Now, that would argue for
25 assuring that there are adequate cost connections

1 between the recycled water and the potable water and
2 also the sea water, which I think are presently
3 programmed in to be used for fire fighting, and I think
4 that represents a positive aspect to the project.

5 My third comment is many of us go to Golden
6 Gate Park and some of us have small children that play
7 in the grass and go to Stern Grove, we all sit on the
8 ground, that would be recycled water. At what point is
9 that grassy surface really, really clean so that the
10 people would be reassured that if the small kids drop
11 their cookie and it falls in the grass and they pick it
12 up and eat it, it's not going to be contaminated. I'm
13 not worried about that because I'm not going to drop a
14 cookie. But in the course of your review, there are
15 people who ask is it really, really safe? And I think
16 you need to dwell on that a bit. Thank you.

17 MS. DOVZAK: Thank you very much. This
18 isn't a question-and-answer period, but after the
19 comment period is finished, if you want to hang around
20 and ask the engineers more questions, we can do that.

21 Shirley Hansen.

22 MS. HANSEN: My name is Shirley Hansen, and
23 I live where he lives.

24 Well, global warming is predicted to produce
25 a substantial rise in sea level, and perhaps a meter by

3C

1 the year 2100. That's a figure that a lot of people
2 project, and it's still continuing to rise. And won't
3 that threaten the sewer plant and water treatment plant?

4 MS. DOVZAK: Thank you. You only used half
5 a minute.

6 Gloria Goss.

7 MS. GOSS: I don't know whether I really --

8 MS. DOVZAK: State your name first.

9 MS. GOSS: I'm Gloria Goss, and I'm a
10 resident of San Francisco, native, and have lived out in
11 the Sunset. I, at one time, was secretary to the
12 superintendent of the sewage plant out at the park in
13 the original sewage plant, and then eventually they
14 did -- I thought they did a wonderful job, and that
15 disappeared, and they built the new plant down --
16 further down by the ocean, and I've been out there, and
17 I think they do a wonderful job out there.

3D

18 Personally, I think what you're planning is
19 a wonderful and all that, but is it really, really
20 necessary? What does the plant out there, the ocean
21 under the zoo there, I've been out there, they have a
22 wonderful facility out there, and they do a wonderful
23 job. All of the recycled water has been used in the
24 park, it's all recycled. They use milorganite in it and
25 that's why all our -- and I don't see no reason to

1 continue if we already have -- this is the second plant
2 that we have built, and I don't quite see the expense of
3 going any further because we're already using this
4 second-hand water for the park and everything. They put
5 milorganite in it, and they are doing a wonderful job
6 right now and, as far as I'm concerned, I don't see the
7 need for it. I hate to disagree, but it's going to be a
8 tremendous expense and unless -- I mean, they are doing
9 a wonderful job now. Golden Gate Park is all taken care
10 of, all the area. We've all submitted in our lawns and
11 we have done everything we possibly can, and I just
12 don't see the need for it, I'm sorry.

13 MS. DOVZAK: Thank you. Anyone else that
14 would like to comment tonight? Okay.

15 MR. HANSEN: I think this lady is raising
16 some interesting questions, but is it correct that the
17 affluent is presently -- what's happening to this two
18 million gallons of fluid a day, is that just going out
19 to the ocean? I mean, would you really be recovering
20 water that is presently going to waste?

21 MS. DOVZAK: Why don't I finish the public
22 comment period. So the public comment period is
23 officially ended. And just let me tell you, if you want
24 to send me your comments, you could either e-mail me at
25 CarrieDovzak@SFgov.org, you could send it by snail mail

1 to the planning department, care of Bill Wycko, who is
2 the acting environmental review officer, and I'll
3 eventually get the questions. I think the next slide
4 has my number, and also Susan Gautier, who is not here
5 this evening but who is the communications person along
6 with Michele for the SFPUC.

7 Thank you for coming to the meeting tonight,
8 and that will end the scoping meeting.

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1 STATE OF CALIFORNIA.)

2) ss.

3 COUNTY OF MARIN)

4

5 I, VICKI A. HAINES, do hereby certify that I am a
6 Certified Shorthand Reporter pursuant to the laws of the
7 State of California; Official Court Reporter of the
8 Marin County Courts of the State of California, thereof;

9 That acting as such reporter I took down in
10 stenotype the testimony given and proceedings had in the
11 within-entitled action fully, truly and correctly.

12 That I thereafter caused the foregoing
13 proceedings of said cause to be transcribed into
14 typewriting, and that the foregoing pages constitute a
15 true and correct transcript of said stenotype so taken.

16

17 Dated this 1st day of July, 2008.

18

19

Vicki Haines

20

VICKI HAINES, CSR No. 5995

21

22

23

24

25

APPENDIX C

Scoping Meeting Materials



San Francisco Planning Department Major Environmental Analysis Division

PUBLIC SCOPING MEETING

San Francisco Westside Recycled Water Project Environmental Impact Report

June 16th and 17th, 2008

Meeting Agenda



San Francisco Planning Department Major Environmental Analysis Division June 16th and 17th, 2008

- Introductions
- Overview
 - ◆ *Environmental review process*
 - ◆ *San Francisco Public Utilities Commission Water System*
 - ◆ *Water System Improvement Program (WSIP)*
 - ◆ *San Francisco Westside Recycled Water Project*
- Public comments
- Closing remarks

Project Scoping Meeting



- Sign in at the table near the entrance
- Pick up copies of meeting materials
- If you would like to speak tonight, fill out a speaker card
- To make written comments, pick up comment cards
 - ◆ *Drop off at the end of the meeting*
 - ◆ *Mail or fax later*
- Please hold all comments until the end of the presentation

Meeting Objectives



- SF Planning Department will receive public comments on the proposed scope and focus of the Environmental Impact Report for the San Francisco Westside Recycled Water Project
- Gather public comment on:
 - ◆ *Environmental effects of the proposed project*
 - ◆ *Methods of assessment for the proposed project*
 - ◆ *Mitigation measures to reduce impacts of the proposed project*
 - ◆ *Alternatives to the proposed project*

Project Team Introductions



- San Francisco Planning Department
 - ◆ *Carrie Dovzak, CEQA Coordinator*
- San Francisco Public Utilities Commission (SFPUC)
 - ◆ *Barbara Palacios, Project Manager*
 - ◆ *Lesley Wong (SF DPW), Project Engineer*
 - ◆ *Steve Brown, Environmental Project Manager*
 - ◆ *Suzanne Gautier, Communications*



ENVIRONMENTAL REVIEW PROCESS

California Environmental Quality Act



Projects require environmental review under the California Environmental Quality Act (CEQA) before they can be considered for approval

For San Francisco Public Utilities Commission projects, CEQA is implemented by the San Francisco Planning Department

CEQA Objectives



- Present environmental impacts of proposed projects
- Identify ways to avoid or reduce environmental impacts
- Support the agency decision-making process
- Promote interagency coordination
- Encourage public participation

Environmental Impact Report

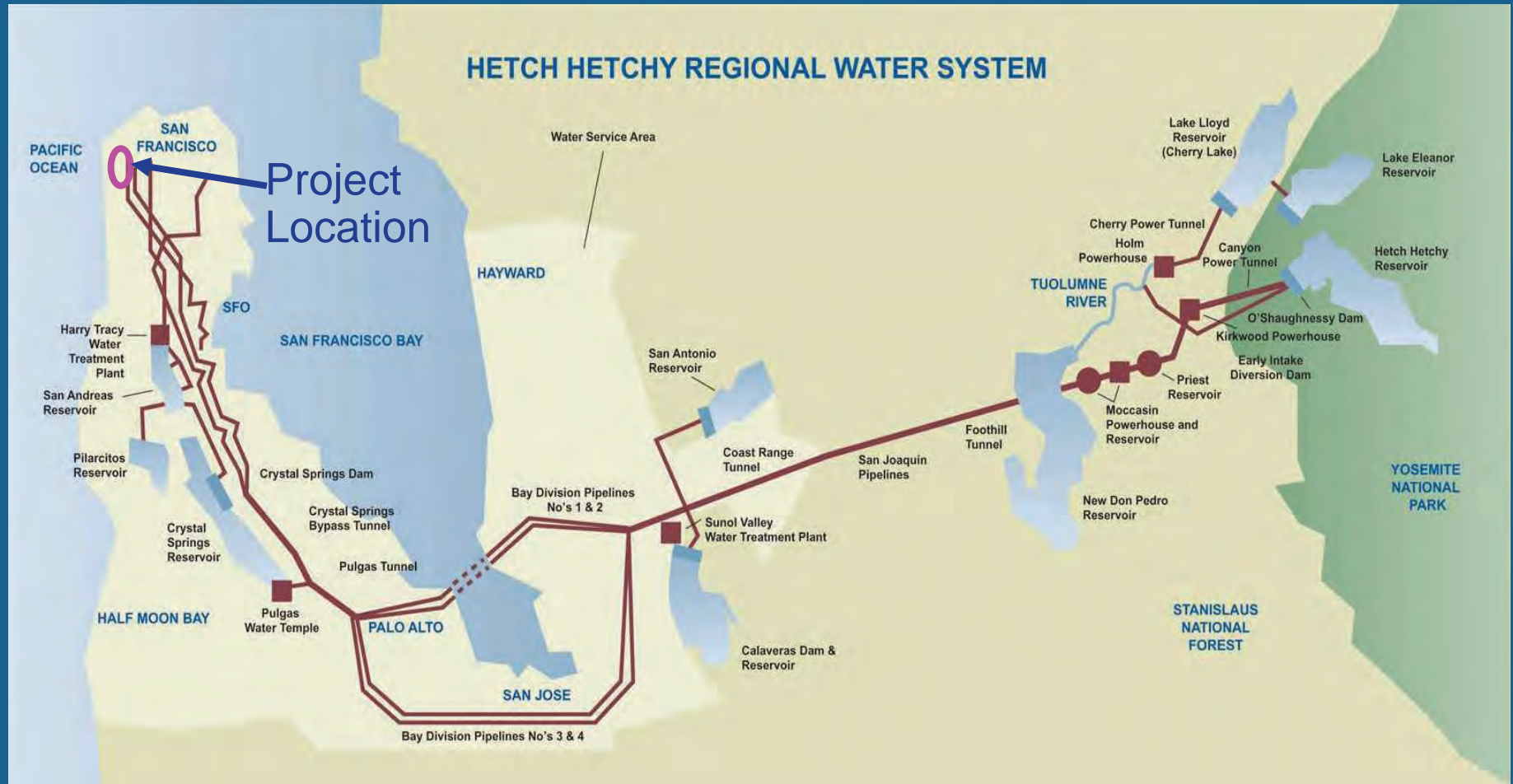


- Provide a detailed description of the project and surrounding environment
- Identify potential environmental effects of the project
- Identify ways to avoid or reduce significant environmental effects through mitigation or alternatives to the proposed project

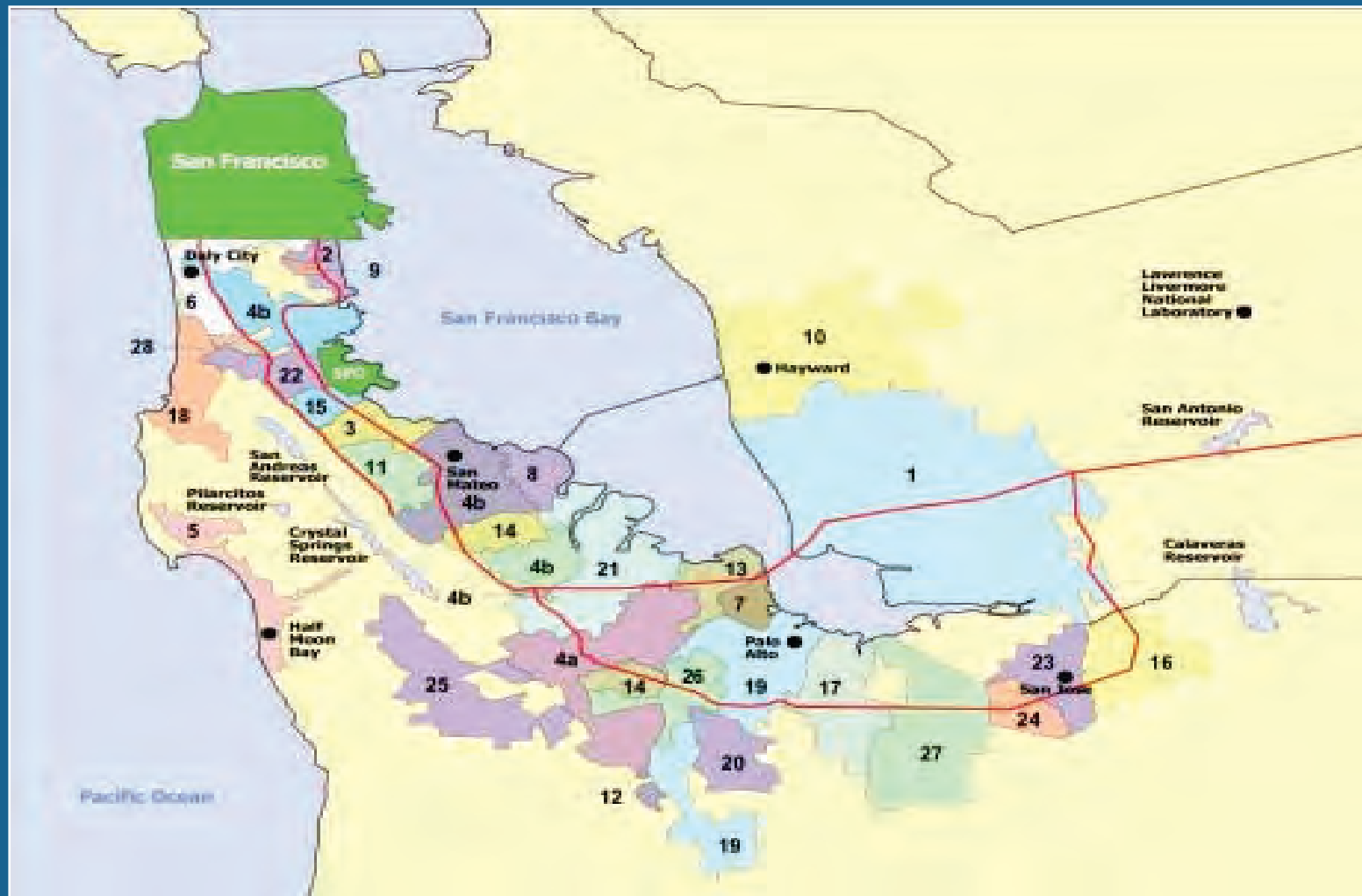


San Francisco Public Utilities Commission

San Francisco Public Utilities Commission Hetch Hetchy Regional Water System



SFPUC Service Area



Water System Improvement Program



- Approved by San Francisco voters in November 2002
- \$4.3 billion capital improvement program to be completed in mid-2014
- Over 70 projects in 7 counties
- Goal: To ensure a reliable source of high quality drinking water to the Bay Area for the future



Water System Improvement Program

San Francisco Westside Recycled Water Project



Developing recycled water for non-drinking uses would ensure that the purest sources of water will be available for the highest use – drinking water

What is Recycled Water?



- Highly treated wastewater that has been purified to remove contaminants so that the water can be reused
- Can be used for a variety of non-drinking uses:
 - ◆ *Landscape irrigation*
 - ◆ *Irrigation of golf courses and parks*
 - ◆ *Lake and pond recharge*
 - ◆ *Toilet and urinal flushing (commercial)*
 - ◆ *Concrete mixing and dust control*
 - ◆ *Industrial and commercial air-conditioning*
 - ◆ *Agricultural irrigation*

Recycled Water is Widely Used in California



In California: 160 California cities used over 63 billion gallons of recycled water in 2002. Examples of cities/utilities using recycled water for landscaping:

- *Redwood City*
- *East Bay Municipal Utility District Service Area*
- *Daly City*
- *San Jose / Santa Clara*
- *Irvine*
- *Los Angeles*
- *Others: Palo Alto, Milpitas, Santa Rosa, Windsor, Marin County, Long Beach*

Recycled Water is Regulated



- Strict Recycled Water Regulations
 - ◆ *California Code of Regulations (Title 22 & Title 17)*
 - ◆ *California Water Code*
 - ◆ *California Health and Safety Code*
- Strict Enforcement
 - ◆ *US Environmental Protection Agency*
 - ◆ *California Department of Public Health*
 - ◆ *Regional Water Quality Control Board*
 - ◆ *San Francisco Department of Public Health*
 - ◆ *San Francisco Department of Building Inspection*



Why Recycled Water?



- Limited drinking water sources
- Provides water of appropriate quality for non-drinking uses
- Drought-resistant
- Investment in the future

Project Objectives



- Diversify the SFPUC's water supplies and meet long-term water demands within the regional water system
- Develop a new water supply that is both reliable and drought-resistant and under SFPUC jurisdiction
- Reduce the use of drinking water and groundwater for irrigation and other non-drinking uses

Proposed Recycled Water Uses



- The Proposed Project would produce recycled water for irrigation and other non-drinking purposes
- The Proposed Project would not provide recycled water to residential customers

Proposed Recycled Water Customers



- Golden Gate Park
- Lincoln Park and Lincoln Park Golf Course
- San Francisco Zoo
- Selected Street Medians & Other Landscaped Areas

Proposed Westside Recycled Water Project Components



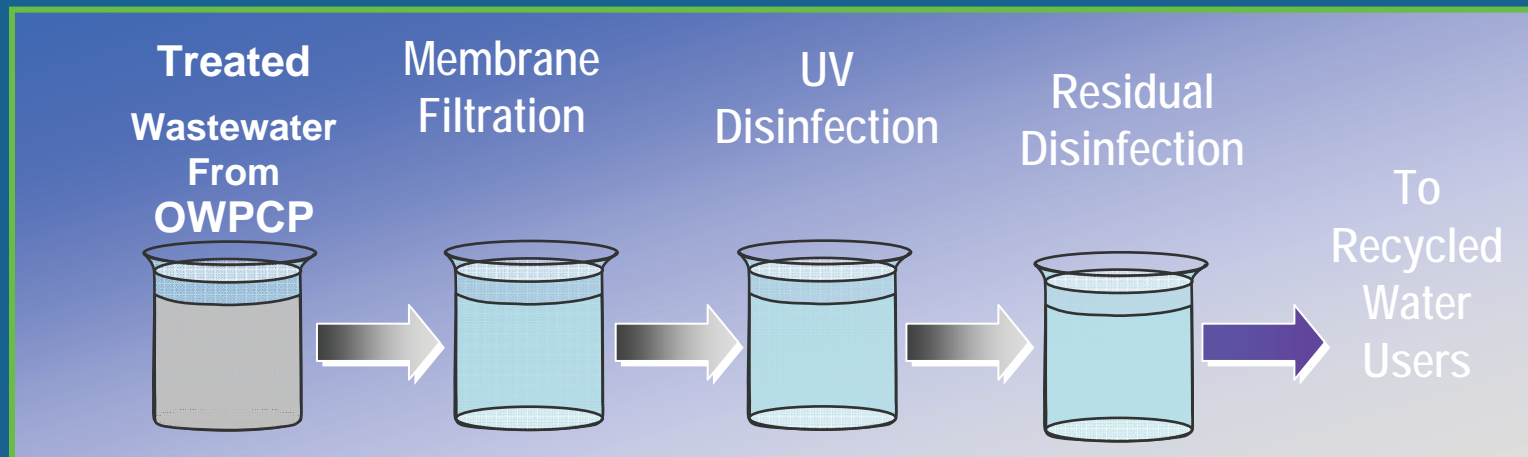
The Project would include the following:

- *Treatment*
- *Storage*
- *Distribution*

Recycled Water Treatment



- The Project would produce disinfected tertiary water
- Source water from Oceanside Plant
- Proposed treatment process: membrane filtration & UV disinfection



Oceanside Plant – Proposed Treatment and Storage Facility (West Gate Berm)

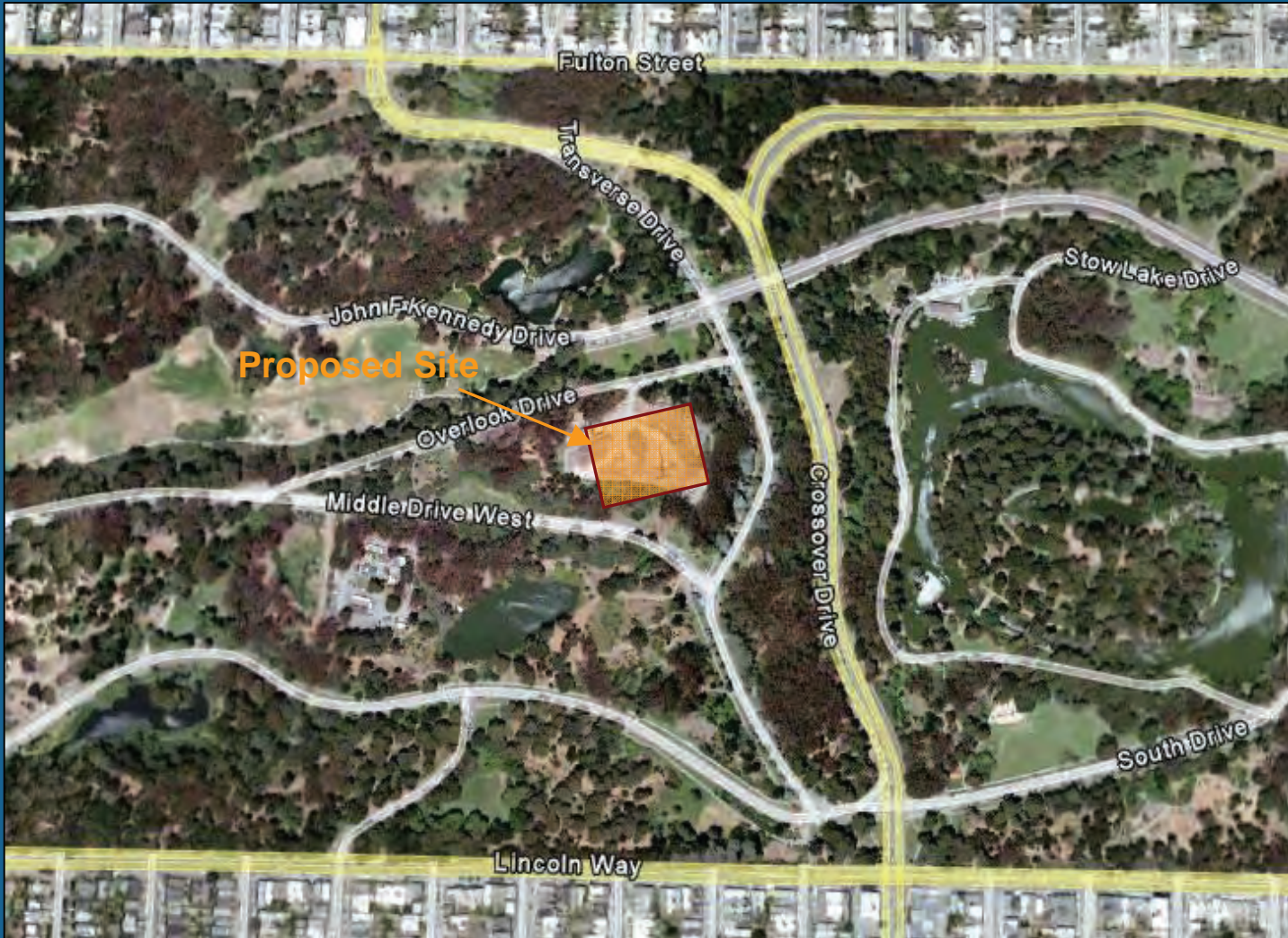


Proposed Storage Reservoirs



- Three new and/or expanded reservoirs currently anticipated:
 - ◆ *Oceanside Plant – 1.5 MG reservoir*
 - ◆ *Lincoln Park – 1.0 MG underground reservoir*
 - ◆ *Golden Gate Park Reservoir – addition of 2.0 MG to existing underground reservoir*
- Reservoir volumes are sized to accommodate daily peaks in demand

Golden Gate Park Reservoir Site



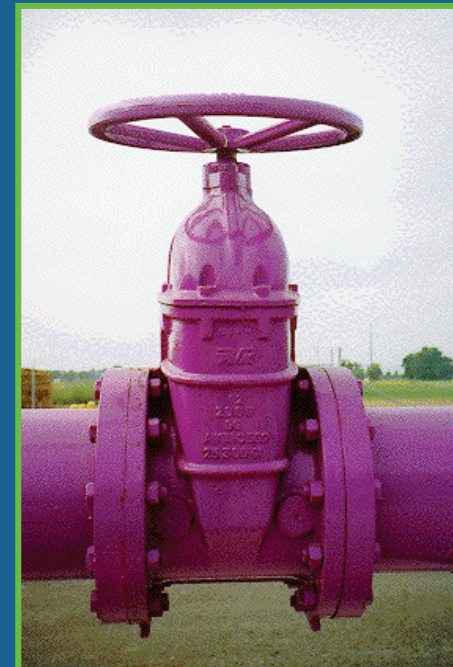
Lincoln Park Reservoir Site



Proposed Distribution System



- System is separate from drinking water system
- Distribution system components:
 - ◆ *Pump stations*
 - ◆ *Distribution pipelines*



Proposed Distribution System Alignments



LEGEND

- Booster Pump
- Storage Reservoir
- Proposed Recycled Water Facility
- Proposed Pipeline
- Alternative Pipeline Alignment (Alt1)
- Alternative Pipeline Alignment (Alt2)
- Proposed Users
- Oceanside Treatment Plant

Proposed Construction Schedule



- Construction from 2010 to 2013
- Proposed Work Hours
 - ◆ *Mon – Fri 7:00 a.m. to 5:00 p.m.*

Safe Application of Recycled Water



- Recycled water would be used in accordance with applicable regulations, including:
 - ◆ *Signage, identification, and markings*
 - ◆ *Certified site supervisor responsible for managing on-site operations*
 - ◆ *Cross connection control*





Developing recycled water for non-drinking uses would ensure that the purest sources of water will be available for the highest use – drinking water

Environmental Review Schedule



Release of NOP

- Notice of Preparation – June 2008
- Public Scoping Meetings – June 16th and 17th, 2008
- Scoping Period Ends – July 8th, 2008

EIR schedule

- Public Review of Draft EIR – Summer 2009
- Certification of Final EIR – February 2010

CEQA Objectives



- Present environmental impacts of proposed project
- Identify ways to avoid or reduce environmental impacts
- Support the agency decision-making process
- Promote interagency coordination
- Encourage public participation

Comment Session Ground Rules



- Submit speaker cards to speak
- Wait until your name is called
- State your name and speak clearly
- Limit comments to 3 minutes
- Use comment forms for more extensive input



PUBLIC COMMENTS

Where to send comments



- Scoping comments accepted through:
July 8, 2008
- Send by email to:
carrie.dovzak@sfgov.org
- Send by fax to (415) 558-6409
- Send by U.S. mail to:
**Attn: Bill Wycko, Acting Environmental Review Officer
San Francisco Planning Department (Westside Recycled
Water Project)
1650 Mission Street, 4th Floor
San Francisco, Ca 94103**

For More Information



About the Environmental Review Process:

***Carrie Dovzak, San Francisco Planning Department,
Major Environmental Analysis Division
(415) 575-9030, carrie.dovzak@sfgov.org***

***The Notice of Preparation is available online at
www.sfgov.org/planning/mea***

About the Westside Recycled Water Project

***Suzanne Gautier, SFPUC
(415) 554-3204, sgautier@sfwater.org***



Public Scoping Meeting

Proposed San Francisco Westside Recycled Water Project

Janet Pomeroy Center - San Francisco, CA – June 16, 2008

Golden Gate Park Senior Center – San Francisco, CA – June 17, 2008

AGENDA

Starting promptly at 6:30 PM

Introductions – Carrie Dovzak, San Francisco Planning Department

Environmental Review Process Overview – Carrie Dovzak, San Francisco Planning Department

Project Overview – Barbara Palacios, San Francisco Public Utilities Commission

Public Comment

Closing Remarks – Carrie Dovzak, San Francisco Planning Department

	SFPUC: San Francisco Public Utilities Commission
	MEA: Major Environmental Analysis Division, San Francisco Planning Department
	CEQA: California Environmental Quality Act
Glossary	EIR: Environmental Impact Report
	WSIP: Water System Improvement Program
Documents Currently Available http://www.sfgov.org/site/planning/mea	- Project Notice of Preparation for the SF Westside Recycled Water Project
	- Draft PEIR for the SFPUC Water System Improvement Program (WSIP)
For More Information	For Project: Suzanne Gautier at SFPUC, (415) 554-3204 or SGautier@sfgwater.org
	For EIR: Carrie Dovzak at SF Planning, (415) 575-9030 or Carrie.Dovzak@sfgov.org
	Planning Department Web Site: http://www.sfgov.org/site/planning/mea

SAN FRANCISCO PLANNING DEPARTMENT



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Janet Pomeroy Center, San Francisco, CA - June 16, 2008

SIGN-IN SHEET

(Please print)

NAME	AFFILIATION	ADDRESS	PHONE	EMAIL
H.J. GORDON	None	2706 43rd Ave SF 94116	415-664-8263	
Lesly Steele	Janet Pomeroy Center			
Theona Vankoll	none	1767 41st Ave 94122	415 661-8839	
Bert Polacci	PARKMERCO	3711 19TH AVE 94132	405 4628	bpolacci@ allresco.com
DICK MORTEN		2578 - 33RD AVE 94116	566-4251	MSARAWAR@ YAHOO.COM
Moi Hoang				iceprincess 22244@Yahoo.com



SAN FRANCISCO PLANNING DEPARTMENT
Public Scoping Meeting
San Francisco Westside Recycled Water Project
June 16th and 17th, 2008

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on July 8, 2008.

Name (please print):

DICK MORTEN

Affiliation (if applicable):

Phone:

506-4351

Email:

MEARPAK@YAHOO.COM

Address:

2578 33RD AVE

City, State, Zip:

SF 94116

COMMENTS

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department (Westside Recycled Water Project), 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479

Fax: (415) 558-6409 Email: Carrie.Dovzak@sfgov.org

For more information on the San Francisco Westside Recycled Water Project, contact Suzanne Gautier at sgautier@sflower.org and 415-554-3204



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – June 17, 2008

SIGN-IN SHEET

(Please print)

NAME	AFFILIATION	ADDRESS	PHONE	EMAIL
ED MOY	SUNSET BEACON	Use (use main address for Beacon)	415 704-7899	edmundymoy@hotmail.com
Tony Guzzetta	Local 38 Plbns Union	1621 Market St	415 626 2000	tguzzetta@local38.org
Pilad Tilkner ^{HANSEN}	CITIZEN	2831 CABRILLO ST. SF CA 94121	415 752-9412	
Shirley Hansen	CITIZEN			
Jocelynn Stone	citizen	522 Stanyan St SF CA 94117	415 831-7178	



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

Golden Gate Park Senior Center, San Francisco, CA – June 17, 2008

SIGN-IN SHEET

(Please print)

NAME	AFFILIATION	ADDRESS	PHONE	EMAIL
Douglas Coty	Olympic Club	Bald Polster Meadow 500 Ygnacio Valley Rd, Ste 725	925-933-7777	dcoty@bpaunj.caa
R. Symkowick		839-39th Ave.	415-221-6337	
Jim Stark	LAKESHORE AREAS IMPROVEMENT CLUB			jesplan@aol.com
G. TOWERS		1851-41st Ave 94122	564-3398	



SAN FRANCISCO PLANNING DEPARTMENT
Public Scoping Meeting
San Francisco Westside Recycled Water Project
 June 16th and 17th, 2008

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on July 8, 2008.

Name (please print): Shirley Hansen
 Affiliation (if applicable): _____
 Phone: 752 9412 Email: _____
 Address: 2831 Cabrillo St
 City, State, Zip: 94121

COMMENTS

Global warming is predicted to produce a substantial rise in sea level, perhaps ~~one~~ meter by the year 2100 and still rising.

Will that not threaten the Westside sewer and water treatment plant?

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department (Westside Recycled Water Project), 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479
 Fax: (415) 558-6409 Email: Carrie.Dovzak@sfgov.org

For more information on the San Francisco Westside Recycled Water Project, contact Suzanne Gautier at sgautier@swater.org and 415-554-3204



SAN FRANCISCO PLANNING DEPARTMENT

Public Scoping Meeting

San Francisco Westside Recycled Water Project

June 16th and 17th, 2008

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on July 8, 2008.

Name (please print): Richard T. Hanson

Affiliation (if applicable): Citizen

Phone: _____ Email: _____

Address: _____

City, State, Zip: _____

COMMENTS

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department (Westside Recycled Water Project), 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479
Fax: (415) 558-6409 Email: Carrie.Dovzak@sfgov.org
For more information on the San Francisco Westside Recycled Water Project, contact Suzanne Gautier at sgautier@sflower.org and 415-554-3204



SAN FRANCISCO PLANNING DEPARTMENT
Public Scoping Meeting
San Francisco Westside Recycled Water Project
June 16th and 17th, 2008

Thank you for participating in tonight's Public Scoping Meeting on the San Francisco Westside Recycled Water Project. Your comments on the scope and focus of the environmental review are encouraged. The San Francisco Planning Department will accept written comments until the close of business on July 8, 2008.

Name (please print):

Ghonia Gosu

Affiliation (if applicable):

Phone:

Email:

Address:

City, State, Zip:

COMMENTS

CONTINUED ON BACK

Mail comments to: Bill Wycko, San Francisco Planning Department (Westside Recycled Water Project), 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479

Fax: (415) 558-6409 Email: Carrie.Dovzak@sfgov.org

For more information on the San Francisco Westside Recycled Water Project, contact Suzanne Gautier at sgautier@sflower.org and 415-554-3204

APPENDIX D

Comments Received During SFWRWP EIR Scoping Process



DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500



1A

June 27, 2008

Ms. Carrie Dovzak
City and County of San Francisco
Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Dear Ms. Dovzak:

Subject: San Francisco Westside Recycled Water Project, Notice of Preparation of an Environmental Impact Report, SCH #2008052113, City and County of San Francisco.

The Department of Fish and Game (DFG) has reviewed the Notice of Preparation (NOP) for the San Francisco Westside Recycled Water Project (Project). The proposed Project is located on the west side of the City of San Francisco. The Project includes a recycled water treatment facility located within the facility and berm area adjacent to the Oceanside Water Pollution Control Plant's west gate entrance and the Great Highway. A network of pipelines would distribute water to a series of reservoirs and pump stations within San Francisco, including: (1) Golden Gate Park Reservoir and Pump Station; (2) Booster Pump Station in Golden Gate Park near Spreckles Lake; and (3) Lincoln Park Reservoir and Pump Station located in Lincoln Park.

The Project is a component of the San Francisco Public Utilities Commission's (SFPUC) Water System Improvement Program, and proposes to reduce SFPUC's reliance on potable water for non-potable uses such as irrigation. The project would meet the current demands of irrigation customers by distributing recycled water to Golden Gate Park, Lincoln Park and Golf Course, and other areas along the west side of San Francisco. The project is anticipated to produce and deliver an annual average of approximately 2.0 million gallons per day (mgd) of treated recycled water, with a peak output of about 4.9 mgd during the summer.

The Environmental Impact Report (EIR) should contain a complete description and map of the vegetation communities, wildlife habitats, creeks, wetlands, and other important habitat features on and around the project area. Acreage of vegetation communities and habitat types should be described. The EIR should identify and discuss any impacts to habitats and any mitigation measures necessary to offset those impacts. DFG recommends mitigation for reduction of all of habitat types including, but not limited to, coniferous forest, grasslands, riparian, wetlands, oak woodland, and vernal pool. In all habitat types, we recommend temporary and permanent impacts be mitigated by avoidance, minimization of impacts, and acquisition and preservation of at least an equal area and quality as that lost.

Carrie Dovzack
June 27, 2008
Page 2


Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/wildlife/species/survey_monitor.html.

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to the CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at <http://www.dfg.ca.gov/habcon/1600/>; or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

We appreciate your consideration of our comments. DFG personnel are available for consultation regarding resources and strategies to minimize impacts. If you have any questions please contact, Mr. Wes Stokes, Environmental Scientist, at (707) 944-5571; or Mr. Greg Martinelli, Water Conservation Supervisor, at (707) 944-5570.

Sincerely,


for Charles Armor
Regional Manager
Bay Delta Region

cc: State Clearinghouse

1B

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 622-5491
FAX (510) 286-5559
TTY 711



*Flex your power!
Be energy efficient!*

June 13, 2008

SFVAR001
SF-1/35
SCH#2008052133

Mr. Bill Wycko
Planning Department
City and County of San Francisco
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Dear Mr. Wycko:

San Francisco Westside Recycled Water Project – Notice of Preparation

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the San Francisco Westside Recycled Water Project. The following comments are based on the Notice of Preparation. As lead agency, the San Francisco Planning Department is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, and implementation responsibilities as well as lead agency monitoring should be fully discussed for all proposed mitigation measures and the project's traffic mitigation fees should be specifically identified in the Environmental Impact Report. An encroachment permit is required when the project involves work in the State's right of way (ROW). The Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore, we strongly recommend that the lead agency ensure resolution of the Department's CEQA concerns prior to submittal of the encroachment permit application; see the end of this letter for more information regarding the encroachment permit process.

Cultural Resources

For any construction activities proposed within the State (ROW), the Department requires documented results of a current archaeological record search from the Northwest Information Center (NIC) of the California Historical Resources Information System before an encroachment permit can be issued. Current record searches must be no more than five years old. The Department requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, to ensure compliance with NEPA (if there is federal action on the project), CEQA, Section 5024.5 of the California Public Resources Code (for state-owned historic resources) and Volume 2 of the Department's Environmental Handbook (Caltrans Standard Environmental Reference (SER), available at <http://www.dot.ca.gov/hq/env/index.htm>). Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs,

1B

Mr. Bill Wycko/City and County of San Francisco
June 13, 2008
Page 2

sidewalks and driveways within or adjacent to State ROW.

We encourage the San Francisco Planning Department to coordinate with our Project Manager, Howard Reynolds at 510-286-7252 for all San Francisco Public Utilities Commission Water System Improvement Program (WSIP) projects.

Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. District Design Review approval will be required for all WSIP projects prior to applying for encroachment permits. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/developserv/permits/>

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Michael Condie, Mail Stop #5E.

Should you have any questions regarding this letter, please call Yatman Kwan of my staff at (510) 622-1670.

Sincerely,



LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-4082
 (916) 657-5390 - Fax



RECEIVED

June 6, 2008

JUN 09 2008

CITY & COUNTY OF S.F.
 PLANNING DEPARTMENT
 M E A

Carrie Dovzak
 San Francisco Planning Department
 1650 Mission Street, Suite 400
 San Francisco, CA 94103

RE: SCH # 2008052133 - San Francisco Westside Recycled Water project, San Francisco County

Dear Ms. Dovzak:

The Native American Heritage Commission has reviewed the above mentioned NOP. To adequately assess the project-related impact on archaeological resources, the Commission recommends the following action be required:

1. Contact the appropriate Information Center for a records search. The record search will determine:
 - Whether a part or all of the project area has been previously surveyed for cultural resources.
 - Whether any known cultural resources have already been recorded on or adjacent to the project area.
 - Whether the probability is low, moderate, or high that cultural resources are located within the project area.
 - Whether a survey is required to determine whether previously unrecorded cultural resources are present.
2. The final stage of the archaeological inventory survey is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - Required the report containing site significance and mitigation be submitted immediately to the planning department.
 - Required site forms and final written report be submitted within 3 months after work has been completed to the Information Center.
3. Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check.
 - A list of appropriate Native American Contacts for consultation concerning the project site and assist in the mitigation measures.

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should include provisions for accidentally discovered archeological resources during construction per California Environmental Quality Act (CEQA) §15064.5 (f). Health and Safety Code §7050.5 and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery and should be included in all environmental documents. If you have any questions, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
 Environmental Specialist III

CC: State Clearinghouse



California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460
<http://www.waterboards.ca.gov/sanfranciscobay/>



Arnold Schwarzenegger
Governor

Linda S. Adams
Secretary for
Environmental
Protection

1D

July 7, 2008
File No. 2168.03 (XF)

San Francisco Planning Department
Attn.: Mr. Bill Wycko
Acting Environmental Review Officer
1650 Mission Street, Suite 500
San Francisco, CA 94103-2414

Subject: Comments on Notice of Preparation of an Environmental Impact Report for San Francisco Westside Recycled Water Project

Dear Mr. Wycko:

We have reviewed the Notice of Preparation (NOP) of an environmental impact report (EIR) for the San Francisco Westside Recycled Water Project (Project). The Project seeks to diversify regional water supplies through development of recycled water as an alternative water supply for non-potable uses. The Project would involve the following activities:

- Construction of a new recycled water treatment facility with an annual average production of about 2.0 million gallons per day (mgd) at the existing Oceanside Water Pollution Control Plant (WPCP);
- Expansion of the existing underground reservoir at Golden Gate Park;
- Construction of new treated water reservoirs at the Oceanside WPCP and Lincoln Park; and,
- Construction of distribution facilities to serve irrigation and commercial customers, such as Golden Gate Park.

Based on the information provided in the NOP, we offer the following comments. These comments are intended to encourage the San Francisco Planning Department and San Francisco Public Utilities Commission (SFPUC) to develop recycled water as an alternative water supply in a manner consistent with State Water Resources Control Board (State Board) Resolution 77-1 and Section 4.16 of the San Francisco Water Quality Control Plan (Basin Plan).

Comments on Recycled Water Beneficial Uses

Water Board staff suggest including a discussion of the beneficial uses of recycled water in the

Mr. Wycko
San Francisco Planning Department

- 3 -

San Francisco Westside
Recycled Water Project

General Water Reuse Permit. The General Water Reuse Permit can be obtained at . Please note that the SFPUC should also review specifications and guidance for water recycling projects provided by the California Department of Public Health at <http://ww2.cdph.ca.gov/HealthInfo/environhealth/water/Pages/Waterrecycling.aspx>.

Water Board staff recommend fully describing the regulatory process, specifications, and potentially applicable permits for water recycling in the EIR.

Closing

Please contact Xavier Fernandez at 510-622-5685 or xafernandez@waterboards.ca.gov with any questions or comments.

Sincerely,



Keith H. Lichten, P.E.
Senior Engineer

cc: State Clearinghouse

July 8, 2008

Mr. Bill Wycko
Acting Environmental Review Officer
HTWTP Long-Term Improvements Project EIR Scoping Comments
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Subject: Case No. 2008.0091E – Response to Notice of Preparation (NOP) of an EIR for the San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

Thank you for the opportunity to provide the following comments from the Bay Area Water Supply & Conservation Agency (BAWSCA). BAWSCA represents the interests of 25 cities and water districts, an investor-owned utility, and a university, that purchase water wholesale from the San Francisco Regional Water System. These agencies, in turn, provide water to 1.7 million people, businesses and community organizations in Alameda, Santa Clara and San Mateo Counties. These comments are in response to the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the San Francisco Westside Recycled Water project dated May 27, 2008.

Our comments are organized to present key comments first, followed by additional specific comments.

KEY COMMENTS

1. *It is not clear how development of recycled water inside San Francisco provides benefit to the BAWSCA agencies and their customers.*

The NOP states "*the primary purpose of the Project is to reduce SFPUC's reliance on potable water for nonpotable uses such as irrigation.*" The NOP is incorrect in further stating that "*the project would contribute to the WSIP goals of diversifying regional water supplies....and help meet regional system water demands.*" Diversifying water supply is not a goal of the WSIP but rather a performance objective for the WSIP goal of Delivery Reliability.

BAWSCA supports the SFPUC's desire to examine and potentially implement cost-effective alternative water supplies for the benefit of the retail customers in San Francisco. In fact, the NOP states that this project will help meet the 10 mgd of recycling, conservation and groundwater that the SFPUC has committed to for meeting retail demand in San Francisco. This would bring San Francisco in line with the BAWSCA agencies who have used local funds to develop groundwater and recycled water which meets over 16% of customer demand in their service areas.

Between now and 2030, BAWSCA agencies will invest additional local funds to develop enough additional conservation, groundwater, and recycled water to meet nearly 19% of customer demand in their service areas. It is prudent practice for San Francisco to join BAWSCA agencies in making this efficient use of its local resources.

However, it is not clear how the development of recycled water in San Francisco to offset use of local groundwater in San Francisco will provide any water supply benefit or drought reliability to the area outside San Francisco. The development of local supplies for San Francisco is no different from the local supplies developed by those agencies outside San Francisco – utilizing local funding for a local benefit and to enable the diversification of local supply portfolios.

2. ***The EIR must clearly explain how the proposed project would interact with the existing and proposed uses of the groundwater basin including the potential impact on the health of customers in San Francisco from future deliveries of local groundwater.***

Section 3.1.2 states that the EIR will evaluate the potential indirect effects on the groundwater resources from the proposed project. Given the potential for the application of the recycled water to be located very close to the potential well location for withdrawal of groundwater for delivery to water customers in San Francisco, the EIR must evaluate the potential impacts to water quality and subsequent customer health. The EIR must also identify the needed permits for the proposed project and potential future projects that would make use of the local groundwater resources.

SPECIFIC COMMENTS

1. **Section 1.1.1 – Lake Merced Project**
 - Is the proposed shift to use more groundwater and treated storm water for the Lake Merced project sustainable? What is the ground water level and can it reasonably be maintained after the project is built? Is the treated storm water option viable and reliable? Is there a ground water recharge plan?
2. **Section 2.2 – Project Purpose**
 - The EIR will need to be clear on the treatment plant capacities. The NOP indicates 2.8 mgd as an average with peak capacity of 6.7 mgd which includes a safety margin of approximately 40%. How much membrane production capacity is held in reserve to accommodate equipment failures or need to take membrane units out of service?
3. **Section 3.0 Environmental Analysis**
 - How will drought impact the supply availability for the project from groundwater sources?

- The EIR will need to address the cross connection control program to prevent recycled water use mistaken for potable water use.
- On page 13, please correct Department of Health Services to Department of Public Health.
- On page 13, it is important that the EIR address potential water quality impacts and monitoring on groundwater quality for any users of groundwater in the area. Are there any specific contaminants that membrane treatment will not remove which are of concern?

Thank you for the opportunity to provide these comments on the Notice of Preparation dated May 27, 2008 regarding the San Francisco Westside Recycled Water project. If you have any questions, please contact me at (650) 349-3000.

Sincerely,



Nicole M. Sandkulla, P.E.
Senior Water Resources Engineer

cc: D. Sokolove, SF Planning Department
A. Jensen, BAWSCA
R. McDevitt, Hanson Bridgett
D. Newkirk, Newkirk Environmental
T. Roberts, Terry Roberts Consulting
File



August 7, 2008

Bill Wycko
Environmental Review Officer
Planning Department
1660 Mission Street, Suite 500
San Francisco, CA 94103

RE: Comments on Recycled Water NOP

Dear Mr. Wycko:

Thank you for the opportunity to respond to the Notice of Preparation for the Environmental Impact Report for the proposed San Francisco Recycled Water Project. The Recreation and Park Department is excited about the project's vision for recycled water.

These comments focus primarily on concerns relative to Golden Gate Park (GGP), the Zoo and Lincoln Park.

1. Treatment Plant and Infrastructure Locations

Seven Sites were identified in the 2006 Master Plan as potential locations for new recycled water treatment facilities. Oceanside Water Pollution Control Plant, San Francisco Zoo Overflow Parking Lot, Fleishhacker Bathhouse, Lake Merced Pump Station, Richmond-sunset Wastewater Treatment Plant Site (GGP), McQueen Site (GGP) and GGP Reservoir and Pump Station. Six of the seven sites evaluated under the AAE were located on property under the jurisdiction of the Recreation and Park Commission. The EIR should also consider "non-park" alternatives.

An alternative analysis evaluation (AAE) prepared by the SFPUC in July 19, 2006, identified the Oceanside Water Pollution Control Plant (OWPCP) as the preferred alternative for the treatment plant. The preferred location should be thoroughly investigated and coordinated with Zoo development plans.

The new pump stations and Lincoln Park reservoir must be underground. The extent to which the treatment plant at the OWPCP is below grade should be made after further land use studies.

According to Figure 1 of the NOP, a new Booster pump is proposed at 40th and Lincoln within GGP. A booster pump station in that location would impact an active reforestation area. The EIR should consider alternate locations such as within the Sunset Boulevard landscape median (at Lincoln).

2. Transportation

The EIR would describe truck/vehicle ingress and egress for the tertiary treatment plant at OWPCP as well as the pump stations. Consideration should be given to the entrance design so that it does not conflict with Zoo or park activities, negatively affect the health and welfare of Zoo animals, burden



park roads or impede vehicular circulation. The number of vehicle trips and primary mode of entry should be analyzed in the EIR.

3. Air Quality

Potential odor impacts emanating from tertiary treatment plant should be carefully analyzed, and mitigations such as odor filters, emergency power and other fail-safe measures should be employed in the design to ensure adequate redundancy. The filtration system should be reviewed by a third party, independent consultant to ensure the highest quality filtration system and equipment will be used, installed and perform to all specifications.

4. Biology

The impact of construction and long term operation of a tertiary treatment facility on Zoo animals should be analyzed in the EIR. According to a March 21, 1987 letter from the Zoological Society, sights, sounds and odors can act as stressors on animals. The Zoo operates a successful propagation program for endangered birds of prey since 1978. If the analysis finds that the project would have a significant effect on Zoo animals then the project should included mitigations to reduce or avoid this effect on the animals. In addition, the EIR would analyze whether reclaimed water be acceptable to use to irrigate pasture areas where animals may graze (e.g., bison in Golden Gate Park).

Recycled water could be damaging to plants, promote algae in lakes, and impair water quality. Special areas in GGP include, but not limited to: Redwood Groves, Fern Dell, Rose Garden, Botanical Garden, Rhododendron Dell, Japanese Tea Garden, Lakes, etc. The EIR would analyze the long term impacts of recycled water on parks (soil contamination by metals, salts, etc), and plant tolerance to recycled water by type.

Accounting for removal of trees and landscaping, and mitigations to reduce or avoid this effect on parks property, should be included in the EIR.

5. Utilities and Services

Buildup of minerals and salts may further lead to further damage and deterioration of the decrepit GGP irrigation infrastructure. The EIR should analyze whether the infrastructure could withstand the accrual of the extra salts and minerals. In addition, the EIR should investigate what new infrastructure would be needed or modifications to existing, to safely and effectively irrigate the park and piped to GGP lakes for recharge. If the analysis finds that the project would have a significant effect on existing infrastructure then the project should included mitigations to reduce or avoid this effect on the park.

Studies should also be conducted to examine the leakage rate from the existing irrigation distribution system.

The recycled water facility and distribution system will require staff for its operation and maintenance. The EIR should identify adequate staffing levels and training required to adequately maintain the infrastructure.

5. Water Quality/Runoff

Many areas of GGP do not drain well. The EIR should investigate whether recycled water is suitable for watering in places that do not drain well (Marx Meadow in GGP, e.g.) since the salt may build up and kill the soil and the plants. Adverse effects on vegetation may only be noticed after several years of irrigation. There may be Title 22 considerations for areas of standing recycled water.

6. Noise/Glare

Every effort should be made to ensure that operational noise and glare do not effect the user enjoyment of the city's parks, the Golden Gate Natural Recreation Area, or the Zoo. As previously mentioned, noise may have adverse effects on wildlife and Zoo animals. The EIR should establish noise decibel standards to reduce operational noise levels on public open space.

7. Visual Quality/Aesthetics

In addition to placing a major portion of the facility underground, the design and landscaping would be developed in cooperation with Recreation and Park Department staff and approved by the Recreation and Park Commission. Art enrichment should address joint use goals and, if the plant is on Zoo property, the art enrichment could develop zoological themes.

8. Emergency Response

The EIR should explore how would the project interface with the San Francisco Fire Department's water infrastructure? For example, what are the pipe routing requirements if the Fire Department use recycled water, and are any fire hydrants served by well water and do they have supply requirements?

9. Construction Impacts

The EIR should explore the full range of construction related impacts on park resources including noise, recreation, air particulates, biological resources, traffic, and water quality. The EIR should describe the best management practices used to mitigate potential construction related impacts.

10. Cumulative Impacts

The EIR would analyze cumulative impacts and how the project would interface with the SFPUC Groundwater Well project. The Groundwater Well Project may rehabilitate GGP wells and/or construct new wells for emergency potable water usage. Well water provides an estimated 2/3 of all irrigation to GGP, which is piped to long term reservoirs and storage ponds.

Groundwater Well Station Project

There are thirteen production wells in GGP. The wells in the eastern area of the park experience less recharge. However, the risk of saltwater intrusion is greater in the western portion of the park.

The EIR cumulative impacts section should describe where the rehabilitated wells/new wells would be located within the park, anticipated maximum daily demand, and whether well water could be combined with recycled water for irrigation, lake or aquifer recharge.

According to our records, the Recycled Water Project would occur after the implementation of the Groundwater Well project. As the projects are interrelated, the cumulative impacts section of the EIR should explore the sequence of each project and potential gaps in water delivery post diversion of well water but pre recycled water. In addition, how will recycled water make use of the well infrastructure such well water holding reservoirs? For example, in order to mitigate the use of reclaimed water on sensitive plant habitat, it may be advisable to use the reservoirs to blend reclaimed water with ground water (or potable water).

The EIR should also explore potential increasing in water output after the well upgrades such as new filter packs and screens. Other well upgrades should include flow totalizers on the wells, so that accurate estimations of well output can be calculated.

Again, thank your for the opportunity to comment. If you have any questions, please contact me at (415) 831-2742.

Sincerely,

A handwritten signature in cursive script that reads "Daniel LaForte".

Daniel LaForte
Park Planner

cc: Dawn Kamalanathan

CALIFORNIA COASTAL COMMISSION

NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT STREET, STE. 2000
SAN FRANCISCO, CA 94105
(415) 904-5260

1G

**RECEIVED**

JUL 25 2008

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

July 22, 2008

Bill Wycko
Acting Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Ste. 400
San Francisco, CA 94103-2479

RE: San Francisco Westside Recycled Water Project

Dear Mr. Wycko,

Staff of the Coastal Commission received the Notice of Preparation (NOP) for the San Francisco Westside Recycled Water Project. Page 13 of the NOP states that the SFPUC may be required to obtain a "determination of consistency with the Local Coastal Program from the San Francisco zoning administrator and/or the California Coastal Commission for construction within the Coastal Zone." It is unclear what is meant by "determination of consistency". It appears that this project will require a coastal development permit (CDP) from both the City/County of San Francisco, and from the Coastal Commission.

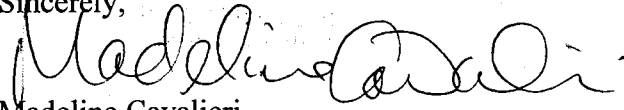
Section 330.1 of San Francisco's Coastal Zone Permit Review Procedures Manual states, in part: "All public projects, except those specifically exempt, shall be required to apply to the San Francisco Department of City Planning for a Coastal Zone Permit..." This project does not appear to be specifically exempt from permit requirements. Therefore, a CDP is required.

Section 330.5.4 of the Coastal Zone Permit Review Procedures Manual states: "The City Planning Commission shall hold a public hearing on any Coastal Zone Permit Application for which the Zoning Administrator has determined from the findings that the project has a significant impact on the Coastal Zone..." Because the Planning Department is preparing an EIR, which signals potential significant impacts, it is likely that the Planning Commission will need to hold a public hearing on the Coastal Zone Permit Application.

In addition to being within San Francisco's Coastal Zone jurisdiction, the proposed project appears to cross a small portion of the Coastal Commission's original jurisdiction at Skyline Blvd and Sloat Blvd. Development in the Commission's jurisdiction will require a CDP issued by the Commission. An application can be found online at: www.coastal.ca.gov/cdp/cdp-forms.html.

If you have any questions about Coastal Zone Permit Requirements, please do not hesitate to contact me at (831) 427-4863.

Sincerely,

A handwritten signature in black ink, appearing to read "Madeline Cavalieri". The signature is fluid and cursive, with the first name being the most prominent.

Madeline Cavalieri
Coastal Planner
North Central Coast District

GIBSON, DUNN & CRUTCHER LLP

2A

LAWYERS

A REGISTERED LIMITED LIABILITY PARTNERSHIP
INCLUDING PROFESSIONAL CORPORATIONS

One Montgomery Street San Francisco, California 94104-4505

(415) 393-8200

www.gibsondunn.com

JAbrams@gibsondunn.com

July 7, 2008

Direct Dial
(415) 393-8370

Client No.
79624-00117

Fax No.
(415) 374-8405

Bill Wycko
San Francisco Planning Department
Westside Recycled Water Project
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Re: *San Francisco Westside Recycled Water Project*

Dear Mr. Wycko:

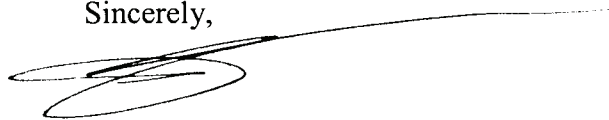
This firm represents Parkmerced Investors, LLC, owners of a 114-acre portion of the neighborhood known as Parkmerced, located in southwest San Francisco. On January 10th, 2008, Parkmerced Investors submitted an application for environmental review for a comprehensive and innovative long-term development program for Parkmerced based on the principles of environmental sustainability and neighborhood livability (the "Parkmerced Project"). The Parkmerced Project would promote these principles by creating a pedestrian-friendly neighborhood that reduces automobile dependency and relies on environmental technologies to reduce energy and water usage. Over a period of 15 to 30 years, the Parkmerced Project would construct 5,677 net new residences, a neighborhood core containing new neighborhood-serving retail, and approximately 50 acres of open space uses (such as athletic fields, walking and biking paths and community gardens).

As part of this commitment to environmental sustainability, the Parkmerced Project seeks to utilize recycled water from the proposed Westside Recycled Water Project. Therefore, we are writing to confirm that the demand projections for the Westside Recycled Water Project include the Parkmerced Project and its expected use of recycled water from the Westside Recycled Water Project. After the completion of the Parkmerced Project, we anticipate that Parkmerced will use approximately 0.22 million gallons per day of recycled water per peak month for irrigation and approximately 0.18 million gallons per day of recycled water on average for residential toilet flushing and laundry.

Bill Wycko
July 7, 2008
Page 2

Please contact me at (415) 393-8370 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim M. Abrams". The signature is written in a cursive style with a long, sweeping horizontal line extending to the right.

Jim M. Abrams

JMA/jma

Hi:

7/3/08

Bill Wycko, Acting Environment Review Officer,
San Francisco Planning Department.

Regarding 1.2 San Francisco West side
Recycled Water Project.

Seems it would be better to lay pipe along
Sunset Blvd's paths rather than digging so
many streets up which is more expensive than
just digging dirt up along Sunset Blvd dirt
paths and filling in with dirt.

Hope they will consider this ??
"There won't be so many streets that will have
to dig to lay the pipes" If plan be adopted.

Russell Hardeman
Russell Hardeman

2226-41st Ave
San Francisco Ca 94116-1517
Tel- 415-564-1511
Fax - 661-0683

----- Forwarded by Carrie Dovzak/CTYPLN/SFGOV on 07/14/2008 11:09 AM -----

CalvinWong@aol.co
m

06/21/2008 08:04
PM

Carrie.Dovzak@sfgov.org

To

cc

Subject
Proposed Westside Recycled Water
Project

Dear Ms. Dovzak,

I am writing concerning the Proposed Westside Recycled Water Project that would use treated waste water from the plant on the far side of the zoo from us to irrigate Golden Gate Park, Lincoln Park, and the greenway along Sunset Boulevard. According to the plan, a pipeline must be dug from the treatment plant and pumping station all the way to Golden Gate Park and Lincoln Park.

I definitely urge that you use the preferred route (east parallel to Sloat to Sunset Boulevard, then along Sunset Boulevard to Golden Gate Park) and not the alternatives.

Thank you for reading this e-mail.

Sincerely,
Calvin Wong

Gas prices getting you down? Search AOL Autos for fuel-efficient used cars.

APPENDIX B

WSIP PEIR Consistency Analysis and Mitigation Measures, Applicability to the Proposed Project

WSIP PEIR Consistency Analysis

The San Francisco Westside Recycled Water Project (project) was analyzed at a program-level in the Water System Improvement Program (WSIP) Program Environmental Impact Report (PEIR)¹ as one of the facility improvement projects under the WSIP. The project details presented in the PEIR were based on the best information available at that time with respect to project design and construction. Details regarding project design, facility layout, construction, staging areas, etc, were not available at the time the PEIR was prepared.

The project EIR (File No. 2008.00912E) provides a detailed, project-level analysis of the proposed project based on site-specific and up-to-date information developed subsequent to the preparation of the PEIR.

Table B-1 evaluates the consistency of the project-level impact analysis in the San Francisco Westside Recycled Water Project EIR with the program-level impact analysis previously conducted in the PEIR. Where significance determinations vary between these documents, a brief explanation of the rationale for this determination is provided.

¹ San Francisco Planning Department, *Final Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, File No. 2005-0159E, State Clearinghouse No. 2005092026. Certified October 30, 2008.

**TABLE B-1
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT**

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Land Use				
Impact 4.3-1: Temporary disruption or displacement of existing land uses during construction.	PSM	LS	N	<p>See Impact LU-1 in the Initial Study: The proposed project would not physically divide an established community.</p> <p>The PEIR assumed that construction activities could disrupt sensitive land uses such as schools and close to residences but implementation of SFPUC Construction Measures #1, #3, #5, #6, #10, and mitigation measures identified in Chapter 6 would reduce the impact to less than significant.</p> <p>Since publication of the PEIR, it has been determined that access to neighborhoods, commercial areas, industrial uses, schools, and parks to be temporarily modified by pipeline construction and lane closures (Refer to Impact LU-1 in the Initial Study). Also, after construction, sections of the pipeline installed during the project would be underground; and new facilities would be relatively small in size, would be constructed in areas that are not commonly used by the public, and would not block access between adjacent land uses.</p>
Impact 4.3-2: Permanent displacement or long-term disruption of existing land uses.	PSU	LS	N	<p>See Impact LU-1 in the Initial Study: The proposed project would not physically divide an established community.</p> <p>The PEIR conservatively assumed that the project could require additional right-of-way to accommodate new facilities, which would have resulted in significant-and-unavoidable impacts on existing uses, even with the implementation of SFPUC Construction Measure #6 (compliance with local noise ordinances to the extent feasible) and Construction Measure #10 (locating staging areas away from public view and directing nighttime lighting away from residential areas) as well as recommendations of facility siting studies (Measure 4.3-2).</p> <p>Since publication of the PEIR, it has been determined that all new pipelines would be below ground and all aboveground facilities would be constructed adjacent to existing facilities with similar uses (Refer to Impact LU-1 in the Initial Study). Also, the new aboveground facilities would be relatively small in size, would be constructed in areas that are not commonly used by the public. Operation of the new pipelines and facilities would not result permanent displacement or long-term disruption of existing land uses.</p>

PEIR Significance Categories

N/A = Not Applicable or no impact

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TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Visual Quality				
Impact 4.3-3: Temporary construction impacts on scenic vistas or visual character.	LS	LS	N	<p>See Impact AE-1 in the Initial Study: The proposed project would not have a substantial temporary adverse effect on a scenic vista, substantially damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings.</p> <p>The PEIR assumed that temporary effects on visual character would be less than significant with implementation of SFPUC Construction Measure #10 (Project Site).</p> <p>The project-level analysis determined that construction impacts on scenic vistas or visual character would be less than significant due to the location, low visibility and/or short duration of construction activities, regardless of implementing SFPUC Construction Measure #10.</p>
Impact 4.3-4: Permanent adverse impacts on scenic vistas or visual character.	PSM	LS	N	<p>See Impact AE-1 in the Initial Study: The proposed project would not have a substantial permanent adverse effect on a scenic vista, substantially damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings.</p> <p>The PEIR conservatively assumed that the project could be within the viewsheds of the Great Highway and Skyline Boulevard (Highway 35) as well as Golden Gate Park. Implementation of PEIR Measures Measure 4.3-4a (Architectural Design), Measure 4.3-4b (Landscaping Plans), Measure 4.3-4c (Landscape Screens), and Measure 4.3-4d (Tree Removal) would reduce these potentially significant impacts to a less-than significant level.</p> <p>Since publication of the PEIR, the project-level analysis determined that the Recycled Water Project would not result in any adverse impacts on scenic resources nor would it degrade the existing visual character or quality of the site or its surroundings. New pipelines would be below ground and the sites would be returned to their general pre-construction conditions. For proposed upgrades to existing structures, there is no substantial change in visual character; the facility type and structure size would remain consistent with the existing structure. For new above-ground structures, visibility is generally limited. See discussion under Impact AE-1 in the Initial Study for details. Therefore, the proposed project would have a less-than-significant impact on scenic vistas and the scenic character of the area.</p>

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Visual Quality (cont.)				
Impact 4.3-5: New permanent sources of light or glare.	PSM	LS	N	<p>See Impact AE-2 in the Initial Study: The proposed project would not result in a substantial source of light and glare.</p> <p>The PEIR conservatively assumed that all WSIP projects that include aboveground improvements could include a new source of light or glare and required implementation of design measures (Mitigation Measure 4.3-5) to reduce this impact to a less-than-significant level.</p> <p>The project-level analysis determined that the recycled water treatment plant would be mostly within the existing Oceanside WPCP, and not visible from public areas. The facility would not include rooftop or other lighting that could project beyond the existing interior areas of the WPCP. Lighting associated with the Central Reservoir, if required, would be within a fenced area that is not in the vicinity of light-sensitive receptors such as residential areas. New operational lighting would be consistent with existing security lighting over doorways, which are operated on timers. Due to the restrictions on intensity, barriers to projection, distance from light-sensitive receptors, and/or duration of lighting, the project would not have new permanent sources of light or glare.</p>
Geology, Soils, and Seismicity				
Impact 4.4-1: Slope instability during construction.	PSM	LS	N	<p>See Impact GE-3 in the Initial Study: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project.</p> <p>The WSIP PEIR assumed construction of a storage tank in Lincoln Park where the CGS has mapped a zone of landslide susceptibility. However, with the implementation of SFPUC Construction Measure #2 (seismic and geotechnical studies) and preparation of a quantified landslide analysis (Measure 4.4-1), the PEIR determined that the potentially significant impact would be reduced to a less-than-significant level.</p> <p>The project no longer includes the construction of a storage tank in Lincoln Park. Implementation of excavation safety requirements specified in Title 8 of the California Code of Regulations, would ensure that potential impacts related to slope instability are less than significant.</p>
Impact 4.4-2: Erosion during construction.	LS	LS	Y	See Impact GE-2 in the Initial Study: The proposed project would not result in substantial erosion or loss of top soil.

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Geology, Soils, and Seismicity (cont.)				
Impact 4.4-3: Substantial alteration of topography.	LS	NI	Y	See Impact GE-4 in the Initial Study: The project would not substantially change existing topography or unique geologic features of the site. The PEIR assumed that the project would be located in previously disturbed areas, or the grading or excavation associated with the projects is not expected to significantly alter the topography, and that SFPUC Construction Measure #10 (project site) would require construction contractors to return the WSIP project sites to the general condition that existed before construction. Therefore, the PEIR analysis conservatively determined impacts related to substantial changes to topography would be less than significant. The project area has no unique topographic, geologic, or physical features. Also, construction of the recycled water treatment plant at the Oceanside WPCP, underground storage reservoir at the Central Reservoir site, and the buried distribution pipelines would not substantially alter the topography of the area.
Impact 4.4-4: Squeezing ground and subsidence during tunneling.	N/A	NI	Y	As described in the EIR Chapter 3, Project Description, trenchless construction (auger boring, pipe ramming or jack-and-bore) would be used to tunnel under the light rail lines and potentially at other intersections. Tunneling resulting in subsidence would not occur.
Impact 4.4-5: Surface fault rupture.	LS	LS	Y	See Impact GE-1 in the Initial Study: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, or seismically induced ground failure.
Impact 4.4-6: Seismically induced groundshaking.	LS	LS	Y	See Impact GE-1 in the Initial Study: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, or seismically induced ground failure.
Impact 4.4-7: Seismically induced ground failure, including liquefaction and settlement.	LS	LS	Y	See Impact GE-1 in the Initial Study: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, or seismically induced ground failure.

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Geology, Soils, and Seismicity (cont.)				
Impact 4.4-8: Seismically induced landslides or other slope failures.	LS	LS/NI	N	<p>See Impact GE-3 in the Initial Study: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project. Also, none of the proposed project facilities would traverse areas of mapped earthquake-induced landslide susceptibility (See Section E.14, Geology and Soils, in the Initial Study).</p> <p>The PEIR identified many projects that were in areas that were susceptible to landslides, but assumed that the project would be designed and constructed to withstand or avoid seismically induced landslides in accordance with the General Seismic Design Requirements. Therefore, impacts were determined to be less than significant.</p> <p>Since the PEIR, the project-level analysis determined that the project sites are not located in earthquake-induced landslide susceptibility areas or on soil units that are unstable, or that could become unstable as a result of the project. Also, implementation of excavation safety requirements specified in Title 8 of the California Code of Regulations would ensure that excavation activities under the proposed project do not result in unstable soils or geologic units. Therefore, the impacts from seismically induced landslides or other slope failures would be not applicable and less than significant, respectively.</p>
Impact 4.4-9: Expansive or corrosive soils.	PSM	LS	N	<p>Based on regional mapping reviewed for the PEIR, expansive and corrosive soils occur in the project area, and impacts related to these soils were considered potentially significant. Impacts would be reduced to a less-than-significant level with implementation of SFPUC Construction Measure #2 (seismic and geotechnical studies) and characterization of the extent of expansive and corrosive soils (Measure 4.4-9), including conformance with CBC requirements.</p> <p>The analysis presented in the PEIR was based on the preliminary project information available at that time. Since preparation of the PEIR, it was determined a combination of electrical isolation, bonding of mechanical/push-on joints, cathodic protection and polyethylene encasement would be included in the project for corrosion protection. Furthermore, the project-level analysis determined the project would not be located on expansive soils.</p>

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TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Hydrology and Water Quality				
Impact 4.5-1: Degradation of water bodies as a result of erosion and sedimentation or a hazardous materials release during construction.	LS	LS	Y	<p>See Impact HY-1 in the Initial Study: Project construction would not violate water quality standards or otherwise substantially degrade water quality.</p> <p>Although final location of project components was not determined at the time of publication of the WSIP PEIR, the PEIR indicated that implementation of SFPUC Construction Measure #3 (onsite air and water quality measures during construction) and implementation of control measures in compliance with Article 4.1 of the San Francisco Public Works Code, impacts related to the degradation of water bodies as a result of erosion and sedimentation during construction would reduce this impact to a less-than-significant level.</p> <p>Similar to the PEIR, the project-level analysis indicates that through compliance with Article 4.1 of the San Francisco Public Works Code, the SFPUC would be required to develop and implement an erosion and sediment control plan. Also, the implementation of construction site stormwater and dewatered groundwater requirements that comply with Article 4.1 of the Public Works Code would be followed. Therefore, water quality impacts related to stormwater runoff and dewatered groundwater during construction would be less than significant.</p>
Impact 4.5-2: Depletion of groundwater resources.	LS	LS	N	<p>See Impact HY-3 in the Initial Study: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.</p> <p>The PEIR conservatively assumed that the project would require construction dewatering. However, it was determined that only shallow groundwater resources would be affected, which would result in a less-than-significant impact.</p> <p>The project-level analysis determined the project would not result in a depletion or prevent a recharge of groundwater resources. Other than the possibility of temporary dewatering during construction, the project would not involve the extraction of groundwater. Given that the project would not include long-term extraction of groundwater and would only result in a very small increase in impervious surfaces that could reduce groundwater recharge, impacts related to the depletion of groundwater resources and interference with groundwater recharge would be less than significant.</p>

PEIR Significance Categories

N/A = Not Applicable or no impact

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TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Hydrology and Water Quality (cont.)				
Impact 4.5-3a: Degradation of water quality due to construction dewatering discharges.	LS	LS	Y	See Impact HY-1 in the Initial Study: Project construction would not violate water quality standards or otherwise substantially degrade water quality. The PEIR assumed that the project could involve construction dewatering. However, with project compliance with Article 4.1 of the San Francisco Public Works Code and SFPUC Construction Measure #4 (groundwater), the impacts associated with construction dewatering would be less than significant. The project-level analysis indicates that, in accordance with discharge requirements to the combined sewer system in accordance with Article 4.1 of the San Francisco Public Works Code, the quality of the discharges would be within the discharge limitations established for the combined sewer system and water quality impacts related to a violation of water quality standards or degradation of water quality due to discharge of groundwater during construction would be less than significant.
Impact 4.5-3b: Degradation of water quality due to construction-related discharges of treated water.	N/A	LS	N	See Impact HY-1 in the Initial Study: Project construction would not violate water quality standards or otherwise substantially degrade water quality. The PEIR assumed the project would not involve construction-related discharges of chlorinated or chloraminated water. Therefore, this impact was determined to not apply. The project-level analysis indicates that, in accordance with discharge requirements to the combined sewer system in accordance with Article 4.1 of the San Francisco Public Works Code, the quality of the discharges would be within the discharge limitations established for the combined sewer system and water quality impacts related to a violation of water quality standards or degradation of water quality due to discharge of groundwater during construction would be less than significant.
Impact 4.5-4: Flooding and water quality impacts associated with impeding or redirecting flood flows.	N/A	NI	Y	Similar to the PEIR, project-level analysis determined that the project area is not within a flood prone area (See Section E.15, Hydrology and Water Quality, in the Initial Study). Therefore, this impact is not applicable.

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Hydrology and Water Quality (cont.)				
Impact 4.5-5: Degradation of water quality and increased flows due to discharges to surface water during operation.	LS	LS/LS	N	<p>See Impact HY-2 in the Initial Study: Project operation would not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.</p> <p>The PEIR assumed advanced treatment of water added to Lake Merced. Therefore, impacts related to eutrophication of Lake Merced would be less than significant if recycled water were used to augment water levels.</p> <p>Since the PEIR, the program-level determined that implementation of stormwater controls in compliance with the San Francisco Stormwater Design Guidelines and Article 4.2 of the San Francisco Public Works Code would ensure a reduction in the rate and volume of stormwater flows to the sewer system after project. Also, any excavations for the distribution pipeline and at the Oceanside WPCP would be backfilled and returned to existing conditions once pipelines are installed. Therefore, these efforts would result in a less-than-significant impact to Lake Merced water quality.</p>
Impact 4.5-6: Degradation of water quality due to an alteration of drainage patterns or an increase in impervious surfaces.	LS	LS/LS	N	<p>See Impact HY-2 in the Initial Study: Project operation would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality. Also, see Impact HY-4 in the Initial Study: The project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.</p> <p>At the time the PEIR was prepared, it was assumed that the project would replace mostly existing impervious surfaces, and any new impervious surfaces would have no impact. Furthermore, the project would implement erosion control measures in accordance with SFPUC Construction Measure #3 (onsite air and water quality measures during construction) and Article 4.1 of the San Francisco Public Works Code. Therefore, the PEIR determined a less-than-significant impact on water quality due to an alteration of drainage patterns or an increase in impervious surfaces.</p>

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Hydrology and Water Quality (cont.)				
Impact 4.5-6 (cont.)				Since the PEIR, the program-level determined that implementation of stormwater controls in compliance with the San Francisco Stormwater Design Guidelines and Article 4.2 of the San Francisco Public Works Code would ensure a reduction in the rate and volume of stormwater flows to the sewer system after project. Also, any excavations for the distribution pipeline and at the Oceanside WPCP would be backfilled and returned to existing conditions once pipelines are installed. Therefore, these efforts would result in a less-than-significant impact to water quality.
Biological Resources				
Impact 4.6-1: Impacts on wetlands and aquatic resources.	PSM	LS/LS	N	<p>See Impact BI-3 in the Initial Study: The project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act. Also, see Impact BI-2 in the Initial Study: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</p> <p>At the time the PEIR was prepared, it was assumed that the project could affect wetlands and stream crossings at undetermined locations but implementation of SFPUC Construction Measure #8 (biological screening survey) would help determine whether wetland and aquatic resources would be affected. If such resources were identified, Measures 4.6-1a and 4.6-1b would be applicable.</p> <p>Since publication of the PEIR, the project-level analysis determined the project does not include activities or project facilities in the vicinity of wetlands, riparian habitat (specifically, willow riparian scrub) or other sensitive natural communities. Also, although the analysis determined that Lake Merced may be indirectly affected by the proposed project, compliance with Article 4.1 of the Public Works Code and Best Management Practices, would ensure water quality impacts related to stormwater runoff would be less than significant (See Section E.13, Biological Resources, in the Initial Study). Therefore, impacts on wetlands and aquatic resources would be less than significant.</p>

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Biological Resources (cont.)				
Impact 4.6-2: Impacts on sensitive habitats, common habitats, and heritage trees.	PSM	NI/LS	N	<p>See Impact BI-5 in the Initial Study: The project would not conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Also, see Impact BI-2 in the Initial Study: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</p> <p>At the time the PEIR was prepared, the location of project components was not specified. Thus, the PEIR conservatively assumed that the project could affect heritage trees and sensitive habitats. However, the PEIR determined that SFPUC Construction Measure #8, Measure 4.6-1b, and Measure 4.6-2 effects would ensure impacts to sensitive habitats and heritage trees would be less than significant.</p> <p>Since publication of the PEIR, the project-level analysis determined the project does not include activities or project facilities in the vicinity of riparian habitat or other sensitive natural communities. Also, trees in the project vicinity would be protected compliance with including Article 16, Section 808 of the Public Works Code (see Section A.6.2, Construction, in the Initial Study). Therefore, there would a less-than-significant impact on sensitive habitats.</p>
Impact 4.6-3: Impacts on key special-status species – direct mortality and/or habitat effects.	LS	LSM	N	<p>See Impact BI-1 in the Initial Study: The project could affect species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.</p> <p>At the time the PEIR was prepared, it was assumed that all proposed project facilities would be located in previously disturbed areas that do not support key-special-status species, and that SFPUC Construction Measure #8 (biological screening survey) would be used to confirm this conclusion about the presence of habitat for key special-status species.</p> <p>Since publication of the PEIR, the project-level analysis performed a field reconnaissance of the project area; a review of biological resource surveys of the project area and relevant surrounding vicinity; and a review of lists derived by from the CNDDDB, USFWS, CDFW, and CNPS. Impact BI-1 indicated that trees affected by the project could support nesting birds and roosting bats. Also, a portion of the project area could support special status reptiles and/or</p>

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Biological Resources (cont.)				
Impact 4.6-3 (cont.)				amphibians. However, implementation of mitigation measures M-BI-1a (Nesting Bird Protection Measures), M-BI-1b (Avoidance and Minimization Measures for Special-Status Bats), and M-BI-1c (Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle) would avoid or substantially minimize the project's effect on special-status species; therefore, the project would result in less than significant impacts on key special-status species.
Impact 4.6-4: Water discharge effects on riparian and/or aquatic resources.	N/A	LS	N	<p>See Impact HY-1 in the Initial Study: Project construction would not violate water quality standards or otherwise substantially degrade water quality. Also see Impact HY-2 in the Initial Study: Project operation would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.</p> <p>At the time the PEIR was prepared, no construction or operational discharges of system water was expected. Therefore, the PEIR determined impacts from water discharge effects would not be applicable.</p> <p>Since publication of the PEIR, the project-level analysis determined the project does not include activities or project facilities in the vicinity of wetlands, riparian habitat (specifically, willow riparian scrub) or other sensitive natural communities. Also, although the analysis determined that Lake Merced may be indirectly affected by the proposed project, compliance with Article 4.1 of the Public Works Code and Best Management Practices, would ensure water quality impacts related to stormwater runoff would be less than significant (See Section E.13, Biological Resources, in the Initial Study). Therefore, impacts on wetlands and aquatic resources would be less than significant.</p>
Impact 4.6-5: Conflicts with adopted conservation plans or other approved biological resources plans.	N/A	NI	Y	See Section E.13, Biological Resources, in the Initial Study.

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cultural Resources				
Impact 4.7-1: Impacts on paleontological resources.	PSM	LSM	Y	<p>See Impact CP-3 in the EIR: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p> <p>The WSIP PEIR assumed that since the project would involve excavation, the likelihood that this project could affect paleontological resources was considered potentially significant but suspending work if a paleontological resource was identified and implementing PEIR Measure 4.7-1 would reduce the impact to less than significant.</p> <p>The EIR Section 5.2, Cultural and Paleontological Resource, describes that the potential to encounter and adversely impact paleontological resources at the recycled water treatment plant site could result in a significant impact. However, the implementation of Mitigation Measure M-CP-3 Accidental Discovery of Paleontological Resources would reduce potential impacts to a less-than-significant level.</p>
Impact 4.7-2: Impacts on archaeological resources.	PSM	LSM	Y	<p>See Impact CP-2 in the EIR: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5(f). Also, see Impact CP-4 in the EIR: The proposed project could accidentally disturb unknown human remains, including those interred outside of formal cemeteries. Furthermore see Impact CP-5 in the EIR: Construction of the proposed project along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park could disturb human remains associated with the historic-period Golden Gate Cemetery.</p> <p>The WSIP PEIR assumed that since the location of project components and amount of increase in the water level at Lake Merced was unknown, that the project could adversely affect archaeological resources, but that impact would be reduced to a less-than-significant level with implementation of archaeological testing, monitoring, and treatment of human remains (Measure 4.7-2a) and accidental discovery measures (Measure 4.7-2b).</p> <p>As described in EIR Section 5.2, Cultural and Paleontological Resources, excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts on unknown archaeological resources or human remains, particularly along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park, which would be a</p>

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cultural Resources (cont.)				
Impact 4.7-2 (cont.)				significant impact. With the implementation of Mitigation Measure M-CP-2 (Accidental Discovery of Archaeological Resources) the potentially significant impact to archeological resources would be reduced to a less-than-significant level. Also implementation of Mitigation Measure M-CP-4 (Accidental Discovery of Human Remains) and Mitigation Measure M-CP-5 (Archeological Monitoring Program) would reduce potentially significant impacts to human remains to a less-than-significant level.
Impact 4.7-3: Impacts on the historical significance of a historic district or a contributor to a historic district.	N/A	LS	Y	See Impact CP-1 in the EIR: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code. The WSIP PEIR concluded that the project would add new facilities to the WSIP system or upgrade existing non-historic facilities; therefore, the project would not affect historic components of the regional system. As described in the EIR Chapter 5.2, Cultural and Paleontological Resources, the construction of the proposed Oceanside WPCP facilities and the new recycled water distribution pipeline would not affect any historical resources, including those within the Golden Gate Park National Historic District. Thus, no significant impact would result.
Impact 4.7-4: Impacts on the historical significance of individual facilities resulting from demolition or alteration.	LS	LS	Y	See Impact CP-1 in the EIR: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code. At the time of PEIR publication, the locations of project components were unknown. Therefore, the PEIR concluded, if after determining the location, it was found that historic resources could be adversely affected, implementation of SFPUC Construction Measure #9 (cultural resources) would ensure that significant impacts on historical resources would be less than significant. As described in the EIR Chapter 5.2, Cultural and Paleontological Resources, construction would not affect any historical resources, including those within the Golden Gate Park National Historic District.

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cultural Resources (cont.)				
Impact 4.7-5: Impacts on adjacent historic architectural resources.	PSM	LS	N	<p>See Impact CP-1 in the EIR: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code.</p> <p>At the time of PEIR publication, the PEIR assumed that the San Francisco Zoo would be the site for the recycled water treatment facility, and would indirectly affect historic resources in the area. However, the PEIR stated that implementation of SFPUC Construction Measure #9 (cultural resources), and measures requiring the preparation of historic resources surveys and protection plans and historical documentation (Measures 4.7-4a through 4.7-4f) would ensure the impacts on adjacent historic architectural resources would be less than significant.</p> <p>As described in the EIR Chapter 5.2, Cultural and Paleontological Resources, construction would not affect any historical resources. Therefore, no mitigation measures were necessary.</p>
Traffic, Transportation, and Circulation				
Impact 4.8-1: Temporary reduction in roadway capacity and increased traffic delays.	PSM	LS	Y	<p>See Impact TR-2 in the EIR: Closure of travel lanes during project construction would temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel, but the effects would be of short duration and limited in magnitude.</p> <p>The PEIR assumed that construction within or across local roadways would affect traffic operations, but implementation of SFPUC Construction Measure #5 (traffic control plan) and additional traffic control measures identified in Measure 4.8-1a would ensure impacts of a temporary reduction in roadway capacity and increased traffic delays would be less than significant.</p> <p>The project-level analysis (EIR Section 5.3, Transportation and Circulation) indicates that a Construction Management Plan would be implemented to minimize temporary effects on traffic in the vicinity of the construction areas and to inform city agencies of project construction. Due to the short duration and limited magnitude of traffic disruptions and required coordination and review of the project's Construction Management Plan by the multi-agency Transportation Advisory Staff Committee (TASC) to address localized construction effects, construction impacts related to a temporary reduction in roadway capacity and increased traffic delays would be less than significant.</p>

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Traffic, Transportation, and Circulation (cont.)				
Impact 4.8-2: Short-term traffic increases on roadways.	PSM	LS	N	<p>See Impact TR-3 in the EIR: Project construction would cause temporary increases in traffic volumes on area roadways, but would not cause substantial conflicts with the performance of the circulation system.</p> <p>The PEIR assumed that a great amount of construction traffic would be generated due to the project. However, implementation of SFPUC Construction Measure #5 (traffic control plans), additional traffic control measures identified in Measure 4.8-1a, and coordination of individual traffic control plans (Measure 4.8-1b) would ensure impacts of increased traffic volumes would be less than significant.</p> <p>As described in the EIR, the project-level analysis determined that the addition of the project traffic on local roads due to concurrent construction activities may be noticeable. The analysis also determined that impacts related to temporary increases in traffic volumes during project construction would have a minor lessening of roadway traffic-carrying capacities, which could affect traffic and transit operations. However, due to the temporary nature and limited magnitude, the construction related increase in traffic would not be substantial. Furthermore, the Construction Management Plan and coordination of construction with SFMTA Muni Operations could further reduce any impacts. Therefore, short-term traffic increases on roadways would be less than significant without mitigation.</p>
Impact 4.8-3: Impaired access to adjacent roadways and land uses.	PSM	LS	N	<p>See Impact TR-4 in the EIR: Project construction within roadways would not substantially limit access to adjacent roadways and land uses.</p> <p>The WSIP PEIR assumed that the project would have the potential to result in impacts on adjacent land uses and on pedestrian and bicycle circulation, especially in a densely populated area. Implementation of SFPUC Construction Measure #5 (traffic control plan) and additional control measures identified in PEIR Measure 4.8-1a were thought to reduce this impact to a less-than-significant level.</p> <p>According to the EIR, given the pace of work, impaired access to adjacent land uses, driveways, and cross-streets along the pipeline constructions routes would be limited to 1 or 2 days at any</p>

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Traffic, Transportation, and Circulation (cont.)				
Impact 4.8-3 (cont.)				one location. During non-construction hours access would be restored whenever feasible. Furthermore, pursuant to the Construction Management Plan and/or SFPUC's Standard Construction Measures, emergency vehicles would be given priority access during lane closures; emergency service providers would be notified prior to lane closures; and detour signs and flaggers would be in place during land closures. For these reasons, the impact determination is less than significant.
Impact 4.8-4: Temporary displacement of on-street parking.	PSM	NI	N	Since publication of the PEIR, the significance criterion specifically pertaining to displacement of on-street parking has been deleted from the San Francisco Planning Department's initial study checklist.
Impact 4.8-5: Increased traffic safety hazards during construction.	PSM	LS/LS	N	<p>See Impact TR-2 in the EIR: Closure of travel lanes during project construction would temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel, but the effects would be of short duration and limited in magnitude. Also, see Impact TR-5 in the EIR: Project construction would not substantially impair access to alternative transportation facilities (public transit, bicycle, or pedestrian facilities), although it could temporarily decrease the performance of such facilities.</p> <p>The PEIR conservatively assumed that the WSIP projects in all regions would increase safety hazards but implementation of SFPUC Construction Measure #5 (traffic control plan) and additional traffic control measures identified in Measure 4.8-1a would reduce this impact to a less-than-significant level.</p> <p>According to the EIR, the project-level analysis indicates that pipeline installation in roadways would result in traffic disruptions and affect alternative transportation facilities. However, traffic disruptions and impacts on alternative transportations would be short in duration and of limited magnitude. Furthermore, required coordination and review of the project's Construction Management Plan by the multi-agency TASC and required compliance with SFMTA Blue Book regulations would result in a less-than-significant traffic safety hazards during construction.</p>
Impact 4.8-6: Long-term traffic increases during facility operation.	LS	LS	Y	See Impact TR-6 in the EIR: Project operations and maintenance activities would cause some increases in traffic volumes on area roadways, but would not substantially alter transportation conditions and would not cause conflicts with alternative travel modes, including vehicles, emergency vehicles, transit, pedestrians, and bicycle traffic.

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Air Quality				
Impact 4.9-1: Construction emissions of criteria pollutants.	LS	LSM	N	<p>See Impact AQ-2 in the EIR: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, and could violate an air quality standard or contribute substantially to an existing or projected air quality violation.</p> <p>The PEIR determined that air pollutant emissions would result due to construction activities at the project site, but that the impact of construction emissions of criteria pollutants would be less than significant due to implementation of SFPUC Construction Measure #3.</p> <p>According to EIR Chapter 5.5, the project level analysis determined that during construction NO_x emissions could exceed the 54 pounds/day significance criterion. However, with the implementation of Mitigation Measure M-AQ-1 (Construction Emissions Minimization) the emissions of equipment and vehicle exhaust associated with project construction could be reduced sufficiently to result in less-than-significant impacts due to criteria pollutants.</p>
Impact 4.9-2: Exposure to diesel particulate matter during construction.	LS	LS	N	<p>See Impact AQ-3 in the EIR: The proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, but would not expose sensitive receptors to substantial pollutant concentrations.</p> <p>At the time of the WSIP PEIR publication, the PEIR assumed that the project and routes for haul and delivery truck traffic would be located near or adjacent to sensitive receptors, however it was determined through the calculation of cancer risk that diesel particulate matter emissions generated by haul truck traffic would be less than significant.</p> <p>According to EIR Chapter 5.5, the project-level analysis determined that during construction emissions would be short-term and variable in nature and would not be expected to expose sensitive receptors to substantial air pollutants in areas outside Air Pollutant Exposure Zones, which only includes Oceanside WPCP facility. Also, the analysis determined that there are no sensitive receptors located near the Oceanside WPCP. Furthermore, the project would be subject to, and would comply with, California regulations limiting idling to no more than 5 minutes. Thus, exposure of sensitive receptors to diesel particulate matter during construction would be less than significant.</p>

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TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Air Quality (cont.)				
Impact 4.9-3: Exposure to emissions (possibly including asbestos) from tunneling.	PSM	NI	N	<p>See Impact AQ-1 in the Initial Study: The project would not create objectionable odors that would affect a substantial number of people.</p> <p>The PEIR analysis conservatively assumed that the project could require the use of jack-and-bore construction, which could result in exposure of nuisance odors, but determined that the impact of exposure to emissions would be less than significant with the implementation of tunnel gas odor control measures (Measure 4.9-3).</p> <p>Since the PEIR publication, the project-level analysis determined that the project would entail trenchless construction (most likely auger boring, but perhaps pipe ramming or jack-and-bore) to tunnel under MUNI rail lines and potentially other intersections (See EIR Chapter 3, Project Description). No emissions are expected due to these activities. In general, diesel exhaust from construction equipment would generate some odors. However, these odors would be temporary and would not persist after project completion. Also, the proposed above-ground facilities would not be within proximity to sensitive receptors. Therefore, impacts to exposure from emissions would be less than significant.</p>
Impact 4.9-4: Air pollutant emissions during project operation.	LS	LS	Y	<p>At the time of the WSIP PEIR publication, the PEIR determined that during operation the project would generate minimal maintenance-related traffic at proposed facilities and use grid power, but during an emergency would use a permitted generator. The permitted generator would comply with applicable air quality standards; therefore, air pollutant emissions during project operation would be less than significant.</p> <p>As described in Initial Study Section E.7, the project-level analysis determined that the project operation would not result in the generation of substantial pollutant concentrations or otherwise result in air quality impacts. Operation would not result in any new stationary point sources associated with the project. Also, mobile emissions would only be emitted from portable diesel generators during an emergency and from few vehicle and truck trips. Furthermore, under normal conditions, any increase in electricity that could result in the generation of air pollutant emissions would come from renewable energy (i.e. Hetch Hetchy Regional Water System).</p>

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Air Quality (cont.)				
Impact 4.9-5: Odors generated during project operation.	LS	NI	N	See Impact AQ-1 in the Initial Study: The project would not create objectionable odors that would affect a substantial number of people. At the time of the WSIP PEIR publication, the PEIR determined that all project components would be enclosed and that the water would have low biological content, and therefore odor potential would be less than significant. Also, the generator used at the project site during an emergency would be permitted and compliance would ensure that the odor would be less than significant. Since the time of the publication of the PEIR, the project-level analysis determined there would be no new stationary point sources associated with the project. Also, the project-level analysis determined that though sources of odor including from diesel exhaust may result, they would be temporary and/or not within proximity to sensitive receptors. Therefore, the analysis concluded there would be no impact from exposure emissions.
Impact 4.9-6: Secondary emissions at power plants.	LS	LS	Y	See Impact ME-1 in the Initial Study: The project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. The Initial Study was consistent with the PEIR analysis: The project-level analysis determined that although treatment and the use of a pump station to convey recycled water would consume incrementally more energy than under existing conditions, these expanded uses would not result in the use of large amounts of fuel, water, or energy in a wasteful manner because of the project design elements described in the Initial Study Section A.6.3. Furthermore, for all WSIP facility improvement projects, the PEIR analysis assumed any incremental increase in power demand would not result in significant secondary air quality impacts. Thus, this PEIR impact was not specifically called-out in the project-level analysis.
Impact 4.9-7: Conflict with implementation of applicable regional air quality plans addressing criteria air pollutants and state goals to limit greenhouse gas emissions.	LS	LSM/LS	N	See Impact AQ-2 in the EIR: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, and could violate an air quality standard or contribute substantially to an existing or projected air quality violation. Also, see Impact C-GG-1 in the Initial Study: The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions.

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Air Quality (cont.)				
Impact 4.9-7 (cont.)				<p>At the time of the publication of the PEIR, the PEIR analysis determined that the WSIP would be consistent with the BAAQMD's Bay Area 2005 Ozone Strategy (BAOS); therefore the WSIP would have less-than-significant impact on regional air quality planning efforts related to criteria pollutants in the Bay Area. Also, given the small amount of greenhouse gas (GHG) emissions that would be emitted from WSIP projects during construction and operation, continuing implementation of GHG reduction actions by the CCSF and SFPUC and additional GHG reductions actions that SFPUC would implement as part of the WSIP, the WSIP projects would not conflict with the State's goals of reducing GHG emissions to 1990 levels by 2020. Therefore, the conflict with implementation of state goals to limit GHG emissions is less than significant.</p> <p>According to Initial Study Section E.8, the project-level analysis determined that the project would not conflict with state, regional, and local GHG reduction plans and regulations. The project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. Therefore, the proposed project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations without mitigation. With regards to the emission of criteria pollutants, the project-level analysis determined that during construction NO_x emissions could exceed the 54 pounds/day significance criterion (See EIR Section 5.5). However, with the implementation of Mitigation Measure M-AQ-1 (Construction Emissions Minimization), the emissions of equipment and vehicle exhaust associated with project construction could be reduced sufficiently to result in less-than-significant impacts due to criteria pollutants.</p>
Noise and Vibration				
Impact 4.10-1: Disturbance from temporary construction-related noise increases.	PSU	LS	N	<p>See Impact NO-3 in the EIR: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code).</p> <p>The PEIR conservatively assumed that the project would generate construction noise audible to nearby receptors beyond the hours specified in local noise ordinances or that could not meet local noise limits for these hours. Also, the PEIR conservatively assumed that construction would be</p>

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Noise and Vibration (cont.)				
Impact 4.10-1 (cont.)				<p>located within 75 feet of noise sensitive receptors. Therefore, disturbance from temporary construction-related noise increases would be potentially significant and unavoidable, even with mitigation Measure 4.10-1a.</p> <p>According to EIR Section 5.4, project-level review indicates that project construction would comply with limits of the noise ordinance and be conducted primarily during daytime hours, five days a week on nonholiday week days. No sensitive residential receptors are nearby the Oceanside WPCP or the Central Reservoir. Along the pipeline route, noise impacts to nearby sensitive receptors would be for a short duration (approximately 2 weeks). Therefore, project construction activities would not result in a substantial temporary increase in ambient noise levels resulting in disturbances.</p>
Impact 4.10-2: Temporary noise disturbance along construction haul routes.	PSU	LS	N	<p>See Impact NO-3 in the EIR: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code).</p> <p>The PEIR assumed that any nighttime truck operations greater than 1 truck per hour could exceed the sleep interference criterion during construction of the project. Implementation Mitigation Measures 4.10-2a (limiting hourly truck volumes during the day) and 4.10-2b (restricting of nighttime truck operations) could reduce the impact but even with implementation of this measure, the impact would be potentially significant and unavoidable.</p> <p>According to EIR Section 5.4, project-level analysis indicates that project construction would be conducted primarily during daytime hours, five days a week on nonholiday weekdays. Furthermore, the Construction Management Plan would minimize the use of local roadways and residential streets to the extent possible (See Impact TR-1 in Initial Study Section E.5), provide advanced public notification, and provide provision of contact information for filing noise complaints. Therefore, temporary noise disturbance along construction haul routes would be less than significant.</p>

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Noise and Vibration (cont.)				
Impact 4.10-3: Disturbance due to construction-related vibration.	PSU	LS	N	See Impact NO-1 in the Initial Study: The project would not result in substantial groundborne vibration or groundborne noise levels. The PEIR assumed that potentially significant vibration effects could result if there are any sensitive receptors located within 100 feet of proposed facilities but implementation of vibration controls (Measures 4.10-31 and 4.10-3b) would help reduce impacts. Also, the analysis conservatively assumed that construction could occur during nighttime hours; therefore, the impact was considered potentially significant and unavoidable. The project-level analysis applied a 0.5-in/sec PPV vibration significance threshold for adjacent buildings from construction equipment and determined that equipment proposed for use at the project site would have vibrational effects well below the threshold. Therefore, disturbances due to construction-related vibration would be less than significant.
Impact 4.10-4: Disturbance due to long-term noise increases.	LS	LS	Y	See Impact NO-2 in the Initial Study: Project operations would not result in the exposure of persons to, or generation of, noise levels in excess of standards or a substantial increase in ambient noise levels in the project vicinity.
Public Services and Utilities				
Impact 4.11-1: Potential temporary damage to or disruption of existing regional or local public utilities.	PSM	LS	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. The PEIR analysis conservatively assumed the project would encroach on existing utilities, and project construction would result in temporarily disrupting utility services, but that implementation of SFPUC Construction Measure #1 (neighborhood noticing) and identification of public utility lines prior to commencing construction (Measures 4.11-1a through 4.11-1h) would reduce the impacts on public utilities to a less-than-significant level. Since the PEIR publication, the program-level analysis determined that the project could result in accidental damage to utilities including underground and above ground, but that project compliance with relevant provisions of Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool would ensure impacts on public utilities would be less than significant.

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Public Services and Utilities (cont.)				
Impact 4.11-2: Temporary adverse effects on solid waste landfill capacity.	PSM	LS	N	<p>See Impact UT-3 in the Initial Study: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.</p> <p>At the time of the PEIR publication, the exact quantity and quality of disposed material and daily disposal rates were not known; however, the PEIR concluded impacts on solid waste landfill capacity were considered less than significant with the implementation of a waste management or recycling plan (Measure 4.11-2).</p> <p>Since the PEIR publication, the project-level analysis determined although the proposed project could incrementally increase total waste generation from San Francisco, the project would not result in either landfill exceeding its permitted capacity or non-compliance with federal, State, and local statutes and regulations related to solid waste; therefore, temporary adverse effects on solid waste landfill capacity would be less than significant.</p>
Impact 4.11-3: Impacts related to compliance with statutes and regulations related to solid waste.	PSM	NI	N	<p>See Impact UT-4 in the Initial Study: The construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste.</p> <p>The PEIR was conservative in assuming that large amounts of spoils could be disposed of off-site for all WSIP projects and required preparation of a waste management or recycling plan to achieve a less-than-significant impact on compliance with applicable statutes and regulations.</p> <p>The project-level analysis found that the project would comply with the San Francisco Construction and Demolition (Ordinance No. 27-06) and the Mandatory Recycling and Composting Ordinance (Ordinance 100-09), in addition to landfills' requirement to meet federal, state, and local solid waste regulations; therefore, the project would have no impact on compliance with all applicable statutes and regulations related to solid waste.</p>
Impact 4.11-4: Impacts related to the relocation of utilities.	PSM	LS	N	<p>See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities.</p> <p>The WSIP PEIR assumed that because extent of a potential utility relocation could not be determined at the time of PEIR publication, the impacts associated with relocation could be temporary or permanent; but that the implementation of SFPUC Construction Measure #1</p>

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Public Services and Utilities (cont.)				
Impact 4.11-4 (cont.)				(neighborhood noticing) and identification of public utility lines prior to commencing construction (Measures 4.11-1a through 4.11-1h) would reduce this impact to a less-than-significant level. Since the time of PEIR publication, the project-level analysis found that although installation of the project pipelines could require the temporary relocation of utility lines that are owned and operated by other utility companies, compliance with relevant provisions of Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool, would ensure a less-than-significant impact on utilities.
Recreational Resources				
Impact 4.12-1: Temporary conflicts with established recreational uses during construction.	PSM	LS	N	See Impact RE-1 in the Initial Study: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities resulting in, substantial physical deterioration or degradation of the facilities. At the time of publication of the PEIR, the PEIR conservatively assumed the use of the existing reservoir at Golden Gate Park in addition to a storage facility that would be built in the vicinity of Lincoln Park, but that the implementation of SFPUC Construction Measures #1, #3, #5, and #6 (neighborhood notice, air quality, traffic, and noise), mitigation measures identified in Chapter 6 (under 4.8, Traffic, Transportation, and Circulation; 4.9, Air Quality; and 4.10, Noise and Vibration), as well as coordination with golf course facility managers and provision of temporary access if applicable (Measure 4.12-1) would reduce potential impacts on recreational uses to a less-than-significant level. Since the PEIR publication, the project no longer includes a new facility at Lincoln Park. The project-level analysis determined project construction activities could require short-term closure of a trail located north of Lincoln Way/34th Avenue, between Lincoln Way and Middle Drive West, for approximately one week, and potential closure of narrow park roadways, such as Overlook Drive, during pipeline construction. However, these areas would be restored to conditions similar to pre-project conditions following pipeline construction (see Section A.6.2, Construction, in the Initial Study); therefore, the project would have a less-than-significant impact on recreational resources during construction.

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Recreational Resources (cont.)				
Impact 4.12-2: Conflicts with established recreational uses due to facility siting and project operation.	PSM	LS	N	<p>See Impact RE-1 in the Initial Study: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities resulting in, substantial physical deterioration or degradation of the facilities.</p> <p>The PEIR conservatively assumed that the project would use the existing reservoir at Golden Gate Park and at a new facility at Lincoln Park, but that implementation of architectural design, landscaping, and tree removal measures to reduce visual impacts (Measures 4.3-4a, 4.3-4b, 4.3-4c, and 4.3-4d), as well as appropriate siting of proposed facilities to minimize the direct loss of recreational access (Measure 4.12-2) would reduce potential impacts to recreational uses to a less-than-significant level.</p> <p>Since the PEIR publication, the project no longer includes a new facility at Lincoln Park. The project-level analysis found that the proposed project would not permanently affect existing recreation resources. The fenced area surrounding the existing Central Reservoir facility in Golden Gate Park may be slightly enlarged, but would not affect Golden Gate Park recreational use areas. Also, any increase in demand for parks or recreational facilities generated by the approximately four employees of the project would be negligible and met by existing recreational facilities. Therefore, the project impacts on recreational uses would be less-than-significant.</p>
Agricultural Resources				
Impact 4.13-1: Temporary conflicts with established agricultural resources.	N/A	NI	Y	As described in Section E.18, Agricultural and Forest Resources, in the Initial Study, the project would result in no impact related to agricultural resources.
Impact 4.13-2: Conversion of farmlands to nonagricultural uses.	N/A	NI	Y	As described in Section E.18, Agricultural and Forest Resources, in the Initial Study, the project would result in no impact related to agricultural resources.

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Hazards				
<p>Impact 4.14-1: Potential to encounter hazardous materials in soil or groundwater.</p>	PSM	LS	N	<p>See Impact HZ-2 in the Initial Study: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose worker and the public to adverse effects from release of hazardous materials.</p> <p>At the time of the publication of the PEIR, because no database review had been conducted to identify potentially hazardous materials in soil or groundwater, the impacts related to the potential to encounter hazardous materials in soil and groundwater were considered potentially significant. However, the impact would be reduced to less than significant with the implementation of SFPUC Construction Measure #7 (hazardous materials), preparation of a site health and safety plan (Measure 4.14 1a) and materials disposal plan (Measure 4.14 1b) if contamination is identified by the site assessment conducted in accordance with Construction Measure #7, discharge regulations discussed in Section 4.5, Hydrology and Water Quality, and implementation of a dewatering plan in accordance with SFPUC Construction Measure #4 (groundwater).</p> <p>The project-level analysis determined based on historic land uses and the presence of historic and current USTs along the distribution pipeline routes, workers and the public could be exposed to hazardous material during construction, and previously unidentified USTs may be encountered during excavation. Also, the analysis determined that the soil and groundwater could require special handling/disposal procedures. However, compliance with Article 21 of the San Francisco Health Code would ensure that hazardous materials impacts associated with encountering previously unidentified USTs would be less than significant. Also, implementation of Article 22A of the San Francisco Public Health Code would ensure the proposed project would result in less-than-significant impacts related to construction within contaminated materials, and implementation of state and federal regulations regarding disposal of contaminated waste would result in less-than-significant impacts from this source. Furthermore, if discharge of groundwater dewatering would be required, the impacts from discharge released to the combined sewer system would be less than significant by releasing in compliance with Article 4.1 of the San Francisco Public Works Code as supplemented by Order No. 158170. Therefore, the impact from the potential to encounter hazardous materials in soil or groundwater would be less than significant.</p>

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Hazards (cont.)				
Impact 4.14-2: Exposure to naturally occurring asbestos during construction.	LS	LS	Y	<p>See Impact HZ-2 in the Initial Study: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose workers and the public to adverse effects from release of hazardous materials.</p> <p>At the time of the PEIR, naturally occurring asbestos were determined to not likely be encountered. However, the PEIR conservatively determined that compliance with the asbestos ATCM would ensure that impacts related to exposure to naturally occurring asbestos would be less than significant.</p> <p>Since the PEIR, the program-level analysis agreed with the PEIR analysis finding that the project area would not contain naturally occurring asbestos. Therefore, there would be less-than-significant impacts from exposure to naturally occurring asbestos.</p>
Impact 4.14-3: Risk of fires during construction.	LS	NI	N	<p>See Impact HZ-6 in the Initial Study: The project would not expose people or structures to a significant risk of loss, injury, or death involving fires.</p> <p>At the time the WSIP PEIR was prepared, PEIR determined that the assumed that the project could be located within the Urban-Wildland Interface at Golden Gate Park, but that compliance with the Public Resource Code, impacts related to fires would be less than significant.</p> <p>The program-level analysis determined that the project area was not within very high or high fire hazard zones. Therefore, the project would have no impact on risk of fires during construction.</p>
Impact 4.14-4: Gassy conditions in tunnels.	LS	NI	N	<p>The PEIR analysis was based on a project design that could require tunneling using jack-and-bore construction at roadway crossings, but by maintaining compliance with Tunnel Safety Orders and any additional requirements of the Department of Industrial Safety would ensure that impacts related to a potential explosion were less than significant.</p> <p>Since the PEIR publication, the project-level analysis determined that the project would entail trenchless construction (most likely auger boring, but perhaps pipe ramming or jack-and-bore) to cross under MUNI rail lines and potentially other intersections (See EIR Chapter 3, Project Description). Gassy conditions are not expected.</p>

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PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYCLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Hazards (cont.)				
Impact 4.14-5: Exposure to hazardous building materials.	PSM	LS	N	<p>See Impact HZ-3 in the Initial Study: Reconfiguration of the chemical building interior would expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), bis(2-ethylhexyl) phthalate (DEHP), and mercury, or result in a release of these materials into the environment during construction.</p> <p>At the time of the publication of the PEIR, the demolition of existing buildings and presence of hazardous building materials in structures that could be demolished was unknown. However, the PEIR determined that the potentially significant impacts due to exposure to hazardous building materials would be reduced to a less-than-significant level with implementation of hazardous materials building surveys and abatement (Measure 4.14-5).</p> <p>The project-level analysis determined the interior of the existing chemical building (Building 510) at the Oceanside WPCP would be reconfigured to house chemical storage tanks and feed systems for the recycled water process, which could result in exposure to hazardous material. Also, the pump station which would be expanded at the Central Reservoir site may also include these materials. However, a SFPUC hazardous building materials survey would be required. If hazardous materials are present, the project would follow procedures required by the Lead in Construction Standard (8 CCR Section 1532.1); be in compliance with BAAQMD asbestos abatement requirements; and remove and dispose of electric transformers that contain PCBs, fluorescent light ballasts that contain PCBs or DEHP, and fluorescent light tubes in accordance with the established regulatory framework.</p>
Impact 4.14-6: Accidental hazardous materials release from construction equipment.	LS	LS	Y	<p>See Impact HZ-1 in the Initial Study: The project would not create a significant hazard through routine transport, use, or disposal of hazardous materials.</p> <p>The PEIR assumed that the project would store and use hazardous materials at construction sites, which could result in the accidental release of hazardous materials such as oil, grease, or fuel. However impacts related to a potential release would be less than significant with implementation of SFPUC Construction Measure #3 (onsite air and water quality measures during construction) and Article 4.1 of the San Francisco Public Works Code.</p>

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Hazards (cont.)				
Impact 4.14-6 (cont.)				Similar to the PEIR, the project-level analysis determined construction efforts would use common hazardous materials such as fuels, lubricants, and solvents needed for the fueling and maintenance of construction equipment. However, the analysis determined that with compliance with Article 4.1 of the San Francisco Public Works Code the potential impact from the use of hazardous materials during construction would be less than significant.
Impact 4.14-7: Increased use of hazardous materials during operation.	LS	LS	N	<p>See Impact HZ-1 in the Initial Study: The project would not create a significant hazard through routine transport, use, or disposal of hazardous materials.</p> <p>The PEIR analysis determined that the project could require the use of chlorination or chloramination treatment chemicals, such as sodium hypochlorite or ammonia, and other water treatment chemicals, as well as propane or diesel for backup power. However, the PEIR determined that the impact from increased use of hazardous materials during operation would be less than significant with preparation and implementation of a legally required HMBP or RMP for new uses of hazardous materials, and revision of the existing HMBP for changes in hazardous materials uses at existing facilities.</p> <p>Similar to the PEIR, the project-level analysis also recognized impacts from the use of treatment chemicals during operation. However, the analysis determined compliance with Article 21 of the San Francisco Health Code would ensure the impact from increased use of hazardous materials during operation would be less than significant.</p>
Impact 4.14-8: Emission or use of hazardous materials within 1/4 mile of a school.	LS	LS	N	<p>See Impact HZ-4 in the Initial Study: Implementation of the project would not result in adverse effects related to hazardous emissions or handling of acutely hazardous materials within one-quarter mile of an existing school.</p> <p>At the time of the PEIR publication, the location of project components was unknown. However, the PEIR determined that future regulatory-approved HMBPs and RMPs would ensure the impact on schools within a ¼ of a mile would be less than significant.</p>

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Hazards (cont.)				
Impact 4.14-8 (cont.)				The project-level analysis determined that the project would use hazardous materials and that, during construction, hazardous air emissions would be emitted, while also identifying many schools within a ¼ mile distance from the project. However, the project would not use extremely hazardous materials; and hazardous air emissions would be temporary and would not result in exposure of sensitive receptors to substantial concentrations of hazardous emissions. Therefore, the project would have a less than significant impact on emission or use of hazardous materials within 1/4 mile of a school.
Energy Resources				
Impact 4.15-1: Construction-related energy use.	PSM	LS	N	See Impact ME-1 in the Initial Study: The project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. The PEIR analysis assumed that during construction activities, fuel use for construction activities, including worker commute trips, the excessive idling and other inefficient site operations could result in the wasteful use of fuels, a potentially significant impact. Implementation of exhaust control measures specified in PEIR Section 4.9, Air Quality, and exhaust control measures (Measures 4.9-1b and 4.9-1d) would reduce the impact to less-than-significant levels. Similar to the PEIR, the project-level analysis recognized the potential impacts of energy use by petroleum use from construction activities. However, the energy use would not be expected to have a measurable effect on local and regional energy supplies. Therefore, the impacts of construction-related energy use would be less than significant.
Impact 4.15-2: Long-term energy use during operation.	PSM	LS	N	See Impact ME-1 in the Initial Study: The project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. The PEIR estimated that the project would require up to 7,000,000 kWh for project operations. The PEIR determined that implementation of this project in addition to other WSIP projects in the San Francisco region (e.g., San Andreas Pipeline 3 Installation and Recycled Water Project) would increase energy use in the San Francisco region by approximately 87 percent, a potentially significant impact, but that incorporation of energy efficiency measures (Measure 4.15-2) would reduce this impact to a less-than-significant level.

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Energy Resources (cont.)				
Impact 4.15-2 (cont.)				The project-level analysis recognized the potential impact of the project of long-term energy use during operation. However, the project demand would be typical for a development of similar scope and nature and would comply with current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection and San Francisco Green Building Ordinance (Ordinance No. 180-08), which includes energy efficiency requirements. Therefore, the impact from long-term energy use during operation would be less than significant.
Collective Facilities Impacts (Consider these to be potential cumulative impacts)				
Impact 4.16-1a: Collective temporary and permanent impacts on existing land uses in the vicinity of proposed facility sites.	N/A	NI	N/A	
Impact 4.16-1b: Collective temporary and permanent impacts on the visual character of the surrounding area.	LSM	NI	N/A	
Impact 4.16-2: Collective exposure of people or structures to geologic and seismic hazards.	N/A	NI	N/A	
Impact 4.16-3: Collective WSIP impacts related to flooding hazards and the degradation of surface waters.	LSM	NI	N/A	
Impact 4.16-4: Collective loss of sensitive biological resources.	N/A	NI	N/A	

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Collective Facilities Impacts (Consider these to be potential cumulative impacts) (cont.)				
Impact 4.16-5: Collective increase in impacts related to archaeological, paleontological, and historic resources.	N/A	NI	N/A	
Impact 4.16-6: Collective traffic increases on local and regional roads.	PSM	NI	N/A	
Impact 4.16-7: Collective increases in construction and operational emissions in the region.	LS	NI	N/A	
Impact 4.16-8: Collective increases in construction-related and operational noise.	PSU	NI	N/A	
Impact 4.16-9: Collective impacts on utilities and landfill capacity.	N/A	NI	N/A	
Impact 4.16-10: Collective effects on recreational resources during construction.	LSM	NI	N/A	
Impact 4.16-11: Collective conversion of farmland to nonagricultural uses.	N/A	NI	N/A	
Impact 4.16-12: Collective effects related to hazardous conditions and exposure to or release of hazardous materials.	LSM	NI	N/A	

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Collective Facilities Impacts (Consider these to be potential cumulative impacts) (cont.)				
Impact 4.16-13: Collective increases in the use of nonrenewable energy resources during operation.	LSM	NI	N/A	
Cumulative Facilities Impacts				
Impact 4.17-1: Cumulative disruption of established communities, changes in existing land use patterns, and impacts on the existing visual character.	LS	LS/LS	N	<p>See Impact C-LU in the Initial Study: The proposed project would not have a significant cumulative impact on land use. Also see Impact C-AE in the Initial Study: The proposed project would not have a significant cumulative impact on aesthetics.</p> <p>The PEIR determined that cumulative development in the vicinity of WSIP projects could disrupt established communities and significantly alter existing land use patterns. However, implementation of SFPUC construction measures and PEIR Measures 4.3-1 and 4.3-2 would ensure that the WSIP's contribution to cumulative land use and visual impacts would be less than significant.</p> <p>The project-level analysis of the cumulative impacts on the existing character of the project vicinity or existing visual character did not identify known cumulative projects that would include substantial changes to the land use character or to the aesthetic resources of areas immediately adjacent to proposed project facilities. Because all of the proposed project elements would be constructed underground or adjacent to existing infrastructure facilities in areas not visible from public areas, or would entail improvements to existing facilities, the proposed project would not result in adverse effects on the existing aesthetic resources and long-term adverse effects on the existing character of the project vicinity. Therefore, the proposed project would have a less-than-significant cumulative impact on land use and aesthetics.</p>
Impact 4.17-2: Cumulative exposure of people or structures to geologic and seismic hazards.	LS	LS	N	<p>See Impact C-GE in the Initial Study: The proposed project would not have a significant cumulative impact related to geologic hazards.</p> <p>The PEIR determined that cumulative geologic and seismic impacts would be site-specific and would be less than significant or mitigated through implementation of PEIR Measures 4.4-1, 4.4-4, and 4.4-9.</p>

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Cumulative Facilities Impacts (cont.)				
Impact 4.17-2 (cont.)				The project-level analysis also determined that geologic and seismic hazards would be localized or site-specific. Implementation of safety requirements specified in Title 8 of the California Code of Regulations for the proposed project, and cumulative projects would ensure that proposed construction activities do not result in unstable soils or geologic units. Furthermore, the proposed project, and cumulative projects, would be designed and constructed in accordance with the most current building code requirements and engineering standards for seismic safety. Therefore, cumulative exposure of people or structures to geologic and seismic hazards would be less than significant.
Impact 4.17-3: Cumulative impacts related to the degradation of water quality, alteration of drainage patterns, increased surface runoff, and flooding hazards.	Beneficial/LS	LS	N	<p>See Impact C-HY in the Initial Study: The project would not have a significant cumulative hydrology and water quality impact. Also, see Impact C-HY-2 in the EIR: The proposed project, in combination with other reasonably foreseeable past, present, and future projects, would not contribute to violations of water quality standards.</p> <p>The PEIR determined that the WSIP projects in conjunction with other projects would not result in cumulative water quality and hydrology effects related to increased erosion and sedimentation, construction-related discharges of treated water or groundwater produced during dewatering, or operational discharges of treated water with implementation of proper BMPs for temporary and permanent erosion control.</p> <p>The project-level analysis determined whether there could be an impact on water quality by generating sedimentation through soil erosion, accidentally releasing hazardous materials by discharging contaminated groundwater dewatering, or releasing of contaminated effluent from the Oceanside WPCP. Also, the analysis considered the potential impacts on combined sewer overflows and storm sewer capacity as well as an increase in surface runoff. The analysis determined the project and the cumulative projects within the vicinity and throughout San Francisco would discharge to the combined sewer system, and the discharge would be subject to Article 4.1 of the San Francisco Public Code (supplemented by SFPUC Order No. 158170), and adhere to the SFPUC's NPDES permit stipulations to ensure compliance with water quality objectives. Similarly, the project and a cumulative project in the vicinity would adhere to SFPUC's NPDES permit when discharging effluent to the Pacific Ocean. With regards to combined sewer</p>

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Cumulative Facilities Impacts (cont.)				
Impact 4.17-3 (cont.)				overflows and storm sewer capacity, compliance with San Francisco’s Stormwater Ordinance and Stormwater Design Guidelines, the project and other development projects in the City would decrease combined stormwater and wastewater flows to the combined sewer system. Furthermore, any increase in impervious surfaces due to the project would be a minuscule portion of the total groundwater basin area. Therefore, the project would have a less-than-significant cumulative hydrology and water quality impact.
Impact 4.17-4: Cumulative loss of sensitive biological resources.	LS	LSM	N	See Impact C-BI-1 in the Initial Study: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources. The PEIR determined that cumulative impacts on biological resources would be less than significant through implementation of PEIR Measures 4.6-1 through 4.6-3as well as Measure 4.16-4a. The project-level analysis determined potential project impacts on biological resources could include impacts on special-status species . Conservatively, the analysis assumed that there could be a significant cumulative impact on biological resources from the combination of these projects, given the historical impacts on biological resources in the vicinity. However, implementing Mitigation Measures M-BI-1a through M-BI-1c would avoid or substantially minimize the project’s effect on special-status species. As a result, these measures would reduce the project’s contribution to cumulative impacts on biological resources to a less-than-cumulatively considerable level.
Impact 4.17-5: Cumulative increase in impacts on archaeological, paleontological, and historical resources.	PSU	LSM	N	See Impact C-CP in the EIR: The proposed project could result in cumulatively considerable impacts related to historical, archeological, or paleontological resources or human remains. The PEIR conservatively assumed that, in combination, projects in the Sunol Valley and Peninsula regions could result in significant impacts on individual historical resources or on potential historic districts (if historic districts were determined to be present). The PEIR did not describe cumulative impacts on cultural resources in the San Francisco region.

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Cumulative Facilities Impacts (cont.)				
Impact 4.17-5 (cont.)				According to EIR Section 5.2, the project level analysis determined that the proposed project as well as adjacent cumulative projects could encounter previously unrecorded archaeological resources, paleontological resources, or human remains, a potentially significant cumulative impact. Implementation of Mitigation Measure M-CP-2 (Accidental Discovery of Archaeological Resources), Mitigation Measure M-CP-3 (Accidental Discovery of Paleontological Resources) Mitigation Measure M-CP-4 (Accidental Discovery of Human Remains), and Mitigation Measure M-CP-5 (Archaeological Monitoring Program) would ensure the project's contribution to this cumulative impact would not be cumulatively considerable.
Impact 4.17-6: Cumulative traffic increases on local and regional roads.	PSU	LS	N	See Impact C-TR in the EIR: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative traffic increases on local and regional roads. The PEIR cumulative analysis determined that significant cumulative impacts could occur during concurrent construction of nearby projects, including non-SFPUC projects, and based on the conservative assumption that interagency coordination of construction traffic might not always be possible; this impact was determined to be potentially significant and unavoidable. According to EIR Section 5.3, the project-level analysis determined that the proposed project in combination with construction activities from cumulative projects could result in temporary and intermittent travel lane or road closures near work sites and increased construction traffic on local and regional roadways. However, the project would be required to implement a Construction Management Plan and requirements specified in the Blue Book,. In addition, the SFPUC would require its contractor to coordinate with the San Francisco Recreation and Parks Department to manage construction traffic within Golden Gate Park. Thus, the project would have a less-than-significant impact on cumulative traffic increases on local and regional roads.
Impact 4.17-7: Cumulative increases in construction and/or operational emissions in the region.	PSU	LS	N	See Impact C-AQ in the EIR: The proposed project could result in cumulative air quality impacts associated with criteria pollutant and precursor emissions and health risks, but the project's contribution would not be cumulatively considerable.

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Cumulative Facilities Impacts (cont.)				
Impact 4.17-7 (cont.)				<p>The PEIR determined that cumulative impacts due to emissions of criteria pollutants would be PSU because the WSIP projects in combination with the cumulative projects would result in regionwide cumulative increases in air emissions during project operations and the residual contribution from each project would contribute to the region's nonattainment status for ozone and particulate matter. Cumulative impacts related to exposure to diesel particulate matter would also be potentially significant and unavoidable because of the lack the lack of certainty about the timing of many of the cumulative projects that might use common haul routes.</p> <p>According to EIR Section 5.5, the project-level analysis determined that construction-related criteria pollutant and precursor exhaust emissions associated with the project could exceed the significance thresholds and therefore could result in cumulative construction-related air quality impacts. However, construction-related combined criteria pollutant and precursor exhaust emissions associated with the project would not exceed these thresholds with the implementation of Mitigation Measure M-AQ-1. The analysis also determined no project facility sites are located within any identified Air Pollutant Exposure Zones, excluding the proposed treatment facility at the Oceanside WPCP. No sensitive receptors are located nearby the Oceanside WPCP; thus no cumulative construction-related health risk impact would occur.</p>
Impact 4.17-8: Cumulative increases in construction-related and operational noise.	PSU	LS	N	<p>See Impact C-NO in the EIR: The proposed project would not have significant cumulative noise impacts.</p> <p>The PEIR determined that cumulative impacts related to noise from truck traffic could occur if the cumulative projects generated truck traffic and used the same delivery/haul/access routes at the same time as the WSIP projects, causing localized cumulative construction-related noise increases. Given the lack of certainty about the timing of many of cumulative projects, this cumulative impact was considered potentially significant and unavoidable.</p> <p>According to EIR Section 5.4, construction schedules of cumulative projects could coincide with the construction schedule of the proposed project, resulting in cumulative traffic noise increases. However, all construction projects will be required to comply with ordinance noise and time</p>

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Cumulative Facilities Impacts (cont.)				
Impact 4.17-8 (cont.)				limits and to travel on designated truck routes. Also, of all the cumulative projects, none are located immediately adjacent to facility sites at the Oceanside WPCP or Central Reservoir, except for upgrades at the Oceanside WPCP and the Central Reservoir well facility, which have construction activities not within the vicinity of sensitive receptors and construction finished before the proposed project construction, respectively. Therefore, cumulative noise increases in the site vicinity or cumulative truck noise increases along haul routes from concurrent construction activities would be less than significant. Thus, the project’s contribution to cumulative noise effects would not be cumulatively considerable.
Impact 4.17-9: Cumulative impacts related to the disruption of utility service or the relocation of utilities.	LS	LS	N	<p>See Impact C-UT in the Initial Study: The proposed project would not have a significant cumulative impact on utilities and service systems.</p> <p>The PEIR determined that construction of the WSIP projects could disrupt utility services or require temporary or permanent relocation of utilities. However, PEIR determined that these potential impacts would be site-specific rather than additive and would be mitigated on a site-specific basis and, thus, this cumulative impact was considered less than significant.</p> <p>The project-level analysis determined that the quantity of wastewater that would be produced by the project and those within the vicinity would be minimal and would not likely be of a quality that could exceed the SFPUC’s wastewater treatment requirements (since it can be reasonably assumed that they were designed specifically for this type of waste), and there would be no additional stormwater runoff/drainage. Also, increased waste generation from the project and cumulative development would be partially offset by existing San Francisco ordinances and policies regarding waste reduction. Furthermore, implementation of relevant regulatory requirements for the project and those within the vicinity would ensure that existing utilities are accurately located and protected during construction and that emergency response procedures are in place to address the situation if an existing utility is damaged during construction. Therefore, cumulative impacts on utilities systems would be less than significant.</p>

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PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cumulative Facilities Impacts (cont.)				
Impact 4.17-10: Cumulative effects on recreational resources during construction.	LS	LS	N	<p>Impact C-RE in the Initial Study: The proposed project would not have a significant cumulative impact on recreation.</p> <p>The PEIR determined that construction activities associated with some WSIP facilities could temporarily disrupt access to or use of recreational facilities during construction. However, implementation of SFPUC construction measures (including advanced notification) and coordination with recreational facility managers and schools (PEIR Measures 4.12-1a and 4.12-1b) would reduce the WSIP's impact to a less-than-significant level.</p> <p>The project-level analysis determined that cumulative impacts could occur if additional recreation facilities would be required as a result of the cumulative projects or if increased use of existing facilities could result in the degradation or deterioration of existing facilities. However, the proposed project and currently planned or proposed cumulative projects would not result in direct physical deterioration of physical resources. The proposed project would not include increases in housing or population that would result in substantial increase in the use of parks or other recreational facilities in the area. Other currently planned or proposed cumulative projects do not include substantial increases in housing (with the exception of the Parkmerced project and the 800 Brotherhood Way project), or other aspects that would result in substantial increases in the use of parks or other recreational facilities in the project vicinity. With regards to the Parkmerced project, the 800 Brother Brotherhood Way project, and other future projects, they would be subject to the Planning Code open space requirements regarding provision of public and/or private open space. Therefore, the proposed project would not have a significant cumulative impact on recreation.</p>
Impact 4.17-11: Cumulative conversion of farmland to nonagricultural uses.	LS	NI	N	<p>The PEIR determined that the WSIP would not contribute to any regionwide cumulative loss of farmland in the Bay Area but could incrementally contribute to the regional cumulative loss of farmland in the San Joaquin Region. Siting WSIP facilities to avoid prime agricultural lands or to offset any loss of such lands (PEIR Measure 4.13-2) reduce the WSIP's contribution to this impact to a less-than-significant level.</p> <p>The project-level analysis determined that the proposed project would not result in any adverse effects on agricultural resources; therefore no cumulative impacts on agricultural resources would occur.</p>

PEIR Significance Categories

N/A = Not Applicable or no impact

LS = Less than Significant

PSM = Potentially Significant impact with Mitigation

SU = Significant and Unavoidable, even with mitigation

PSU = Potentially Significant and Unavoidable, even with mitigation

EIR Significance Categories

NI = No Impact or not applicable (equivalent to N/A)

LS = Less than Significant

LSM = Less than Significant impact with Mitigation (equivalent to PSM)

SU = Significant and Unavoidable impact, no feasible mitigation is available

SUM = Significant and Unavoidable impact with Mitigation

TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cumulative Facilities Impacts (cont.)				
<p>Impact 4.17-12: Cumulative effects related to hazardous conditions and exposure to or release of hazardous materials.</p>	LS	LS	N	<p>See Impact C-HZ-1 in the Initial Study: The project would not have a significant cumulative impact related to hazardous materials.</p> <p>The PEIR determined that due to the site-specific nature of hazardous materials impacts and mitigation measures, there would be no potential for cumulative effects from construction of WSIP projects in conjunction with other cumulative developments. The PEIR determined that compliance with applicable laws and regulations, and with implementation of SFPUC construction measures, this cumulative impact would be less than significant.</p> <p>The project-level analysis investigated the potential for cumulative impacts to the project area and immediate vicinity related to use of hazardous materials, exposure to hazardous materials in soil and groundwater, hazardous buildings materials, and interference with an adopted emergency response plan or emergency evacuation plan. The analysis determined the proposed project and all reasonably foreseeable cumulative projects would comply with Articles 21, 21A, and 22 of the <i>San Francisco Health Code</i> which would ensure potential exposure of site personnel and the public to any accidental releases of hazardous materials or waste and would also protect against potential environmental contamination (See Impact HZ-1 in the Initial Study). With implementation of the regulatory requirements discussed in Impact HZ-2 in the Initial Study and the Maher Program requirements, including preparation of a Phase I ESA and implementation of a SMP, as necessary, exposure to hazardous materials in soil and groundwater would not be cumulatively considerable. Also, any encounter with potentially hazardous building materials would be localized to the reconfiguration of the existing chemical facility at the Oceanside WPCP or expansion of the pump station at the Central Reservoir site, and none of the cumulative, reasonably foreseeable future projects would be constructed at those locations (See Impact HZ-3 in the Initial Study). Furthermore, the implementation of the Construction Management Plan for the project and cumulative, reasonably foreseeable future projects would ensure the project's contribution to the interference with an adopted emergency response plan or emergency evacuation plan would not be cumulatively considerable (See Impact HZ-4 in the Initial Study). Therefore, the project would not have a significant cumulative impact related to hazardous materials.</p>

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TABLE 1 (Continued)
PEIR IMPACTS – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Impact	PEIR Significance Determination for San Francisco Westside Recycled Water Project	Project-Level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Cumulative Facilities Impacts (cont.)				
Impact 4.17-13: Cumulative increases in the use of nonrenewable energy resources.	LS	LS	N	<p>See Impact C-ME in the Initial Study: The proposed project would not have significant cumulative mineral and energy impacts.</p> <p>Because the net loss in available hydroelectric energy as a result of WSIP implementation would be less than 0.1 percent of the estimated total energy usage in the counties within the WSIP study area, the PEIR determined the WSIP's contribution to cumulative increases in long-term energy demand would not be considerable. Also, a cumulative increase in construction-related energy consumption would not be considerable with the implementation of exhaust control measures (Measures 4.9-1b and 4.9-1d).</p> <p>The project-level analysis determined that the project and other regional projects would comply with California Green Building Standards Code, at a minimum, and would also be subject to local green building ordinances. The analysis expects compliance would result in a reduction in energy consumption. Therefore, the project would not have significant cumulative energy impacts.</p>

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WSIP PEIR Mitigation Measures, Applicability to the Proposed Project

The San Francisco Westside Recycled Water Project (project) was analyzed at a program-level in the Water System Improvement Program (WSIP) Program Environmental Impact Report (PEIR)² as one of the facility improvement projects under the WSIP. The PEIR identified programmatic mitigation measures, and under Resolution No. 08-200, the SFPUC adopted the WSIP Mitigation Monitoring and Reporting Program that applies the programmatic mitigation measures to the WSIP facility improvements projects, including the project. This project Environmental Impact Report (EIR) provides a detailed, project-level analysis of the proposed project based on site-specific and up-to-date information developed subsequent to the preparation of the PEIR. This section identifies the applicability of the WSIP PEIR mitigation measures to the proposed project based on the project-level impact analysis.

Table B-2 lists the programmatic mitigation measures identified in the WSIP PEIR and indicates which of these mitigation measures are applicable to the proposed project. For the programmatic mitigation measures that are applicable, the table identifies the comparable project-level mitigation measure identified in the project EIR that either relies on the programmatic measures or identifies an equivalent or better site-specific mitigation measure to replace the programmatic mitigation measure. The table also provides an explanation for those programmatic mitigation measures that are not applicable to the proposed project.

² San Francisco Planning Department, *Final Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program*, San Francisco Planning Department File No. 2005.0159E, State Clearinghouse No. 2005092026. Certified October 30, 2008.

TABLE B-2
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Land Use		
Measure 4.3-2, Facility Siting Studies: Conduct project-specific facility siting studies for non-SFPUC land and implement these studies' recommendations to avoid or minimize impacts on existing land uses.	N	Not applicable; all project facilities are sited on land owned by the City and County of San Francisco. As described in the Project Description in the Initial Study, the proposed recycled water treatment plant would be located at the SFPUC's Oceanside Water Pollution Control Plant (WPCP), and within a portion of the adjacent California Army National Guard site. The existing Central Reservoir and pump station in Golden Gate Park would be expanded to include additional storage and pumping capacity. Also, all proposed pipelines would be underground after construction and would not impact existing land uses. No additional mitigation would be required.
Measure 4.3-4a, Architectural Design: Design permanent new, aboveground facilities to be compatible with existing visual character of the site and surrounding area.	N	For new above-ground structures, visibility is generally limited and would be consistent with existing use. The recycled water treatment plant project area would be within the existing Oceanside WPCP and a portion of the adjacent area leased to the California Army National Guard and would not be visible from public areas. The new underground storage reservoir adjacent to the existing Central Reservoir would not be visible following completion of construction. The new pump station building would be within the fenced Central Reservoir and park maintenance area. Although the new pump station would be slightly taller than the adjacent existing pump station, the Central Reservoir site is not located in an area that is highly used by park visitors. In addition, the type, size and building materials would be consistent with the existing facilities. See discussion under Impact AE-1 in the Initial Study for more information. For these reasons, no additional mitigation would be required.
Measure 4.3-4b, Landscaping Plans: Prepare and implement landscaping plans to restore (recontour, revegetate, landscape) sites to preconstruction conditions. Monitor landscape plantings.	N	See discussion under Impact AE-1 in the Initial Study. Most of the project area is covered with impervious surfaces, including streets, sidewalks, and trails, which would be returned to similar conditions following construction. Vegetation removal may be required adjacent to the existing entrance to the Central Reservoir facility area in Golden Gate Park and on the north side of Overlook Drive; however, the adjacent areas are heavily vegetated and it is unlikely that removal of vegetation would substantially alter views of the area. For these reasons, no additional mitigation for landscaping plans or planting would be required.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Land Use (cont.)		
Measure 4.3-4c, Landscape Screens: Include new plantings and landscape berms to screen views of new structures and equipment from scenic roads.	N	The project sites would not be visible from scenic roads. For upgrades to existing structures, there is no substantial change in visual character; the facility type and structure size would remain consistent with the existing structure. For new above-ground structures, visibility is generally limited. See Impact AE-1 in the Initial Study: The proposed project would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources, or degrade the existing visual character or quality of the site and its surroundings. For these reasons, no additional mitigation would be required.
Measure 4.3-4d, Minimize Tree Removal: Minimize or avoid the removal of trees that screen existing and proposed WSIP facility sites; implement tree replacement plan.	N	The project includes several measures to protect trees adjacent to work areas (see Section A.6.2, Construction, in the Initial Study). Also, see Impact BI-5 in the Initial Study: The project would not conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. For these reasons, no additional mitigation would be required.
Measure 4.3-5, Reduce Lighting Effects: Use cut-off shields and nonglare fixture design, direct lighting onsite and downward, prevent use of highly reflective building materials or finishes.	N	The recycled water treatment plant facility would not include rooftop or other lighting that could project beyond the existing interior areas of the WPCP. The lighting associated with the Golden Gate Central Reservoir, if required, would be within a fenced area that is not in the vicinity of light-sensitive receptors such as residential areas. Any new operational lighting would be consistent with existing security lighting over doorways, which are operated on timers. Nighttime construction is not proposed. For these reasons, no additional mitigation would be required. See Impact AE-2 in the Initial Study, The proposed project would not result in a substantial source of light and glare.
Geology		
Measure 4.4-1, Quantified Landslide Analysis: Avoid sites with landslide hazards; where they cannot be avoided, conduct site-specific slope stability analyses and implement recommendations.	N	Since the PEIR, the project-level analysis determined that the project was not in mapped earthquake-induced landslide susceptibility areas or located in soil that is unstable, or that could become unstable as a result of the project (See Section E.14, Geology and Soils, in the Initial Study for more information). Also, see Impact GE-3 in the Initial Study: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project.
Measure 4.4-4, Subsidence Monitoring Program: Monitor subsidence and implement corrective actions as warranted.	N	Not applicable; the project only involves trenchless construction (auger boring, jack-and-bore, or pipe ramming). See EIR Chapter 3, Project Description.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Geology (cont.)		
Measure 4.4-9, Characterize Extent of Expansive and Corrosive Soil: Characterize the presence of expansive/corrosive soils; implement recommendations.	N	The artificial fill and dune sand beneath the project area are not considered to be expansive soil types. A combination of electrical isolation, bonding of mechanical/push-on joints, cathodic protection and polyethylene encasement as appropriate would be used for corrosion protection of the new ductile iron pipelines and appurtenances between the facilities, reservoir, pump stations, and end users.
Hydrology		
Measure 4.5-2, Site-Specific Groundwater Analysis and Identified Measures: Conduct project-specific analysis of dewatering and implement measures to ensure that groundwater resources and the beneficial uses of groundwater are not adversely affected.	N	Not applicable. See Impact HY-3 in the Initial Study: During construction, any project-related effects on the shallow groundwater table would be temporary in nature, as dewatering would be required only during certain phases of construction and only if groundwater is encountered. The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
Measure 4.5-4a, Flood Flow Protection Measures: Preclude exposure of stockpiled soils, hazardous materials, and construction materials to flood flows.	N	The project area is not located within a known flood risk area (see Section E.15, Hydrology and Water Quality, in the Initial Study). No additional mitigation is necessary.
Measure 4.5-4b, Site-Specific Flooding Analysis and Identified Measures: Implement design measures to preclude projects from causing flooding or damage from redirected flood flows.	N	The project area is not located within a known flood risk area (see Section E.15, Hydrology and Water Quality, in the Initial Study). The project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.
Measure 4.5-5, Stormwater Treatment and Groundwater Monitoring: If treated stormwater is used to maintain Lake Merced water levels, monitor surface water and groundwater quality in the vicinity of Lake Merced. Identify and implement corrective actions (e.g., treatment).	N	The proposed project does not propose using treated stormwater to maintain Lake Merced water levels (See Section A.2, Project History and Development, in the Initial Study).
Measure 4.5-6, Appropriate Source Controls and Site Design Measures: For projects located in areas not covered by a municipal stormwater permit and disturbing less than one acre of land during construction, implement appropriate source control and site design measures. These measures will ensure compliance with applicable water quality criteria and goals and protect the beneficial uses of the receiving water.	N	Consistent with the Article 4.1 of the San Francisco Public Works Code, and the SFPUC's Water Pollution Prevention Program, the SFPUC would be required to implement an erosion and sediment control plan, which includes provisions to prevent stormwater pollution and control runoff at each site during project construction. In addition, SFPUC would be required to obtain a permit in accordance with Article 4.1 of the San Francisco Public Works Code, for groundwater dewatering discharges to the combined sewer system.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Biology		
<p>Measure 4.6-1a, Wetlands Assessment: Wetland scientist will determine whether wetlands could be affected by the project, and, if so, perform a wetland delineation and develop mitigation.</p>	N	<p>See Impact BI-3 in the Initial Study: The project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act. The project-level analysis determined the project does not include activities or project facilities in the vicinity of riparian habitat (specifically, willow riparian scrub) or other sensitive natural communities. Also, although the analysis determined that Lake Merced may be indirectly affected by the proposed project, implementation of plans in accordance with Article 4.1 of the Public Works Code and Best Management Practices would ensure water quality impacts related to stormwater runoff would be less than significant (See Section E.13, Biological Resources, in the Initial Study).</p>
<p>Measure 4.6-1b, Compensation for Wetlands and Other Biological Resources: If a WSIP project will affect jurisdictional wetlands, implement avoidance measures, restoration procedures, and compensatory creation or enhancement to ensure no net loss of wetland extent or function. Compensate for sensitive riparian and upland habitats supporting key special-status species. Obtain permits for each project and comply with applicable regulations addressing sensitive habitats and species. The Habitat Reserve Program is an alternative for implementing offsite habitat compensation.</p>	N	<p>No compensation habitat is needed for the proposed project. The project-level analysis determined the project does not include activities or project facilities in the vicinity of riparian habitat (specifically, willow riparian scrub) or other sensitive natural communities. Also, implementation of M-BI-1a (Nesting Bird Protection Measures), M-BI-1b (Avoidance and Minimization Measures for Special-Status Bats), and M-BI-1c (Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle) would eliminate or substantially minimize the project's effect on special-status species</p>
<p>Measure 4.6-2, Habitat Restoration/Tree Replacement: Restore temporarily affected sensitive habitats. Replace trees designated as heritage trees (or similar local designation) consistent with requirements of local ordinances. Minimize loss of sensitive habitats by coordinating WSIP projects.</p>	N	<p>Trees in the project area would be protected by compliance with Article 16, Section 808 of the Public Works Code. See Impact BI-5 in the Initial Study: The project would not conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Also, see Impact BI-2 in the Initial Study: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.</p>
<p>Measure 4.6-3a, Protection Measures During Construction for Key Special-Status Species and Other Species of Concern: Where key special-status species and other species of concern are potentially present, implement general practice measures (preconstruction surveys, worker awareness program, environmental inspector, minimization of habitat loss).</p>	Y	<p>See mitigation measures M-BI-1a (Nesting Bird Protection Measures), M-BI-1b (Avoidance and Minimization Measures for Special-Status Bats), and M-BI-1c (Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle).</p> <p>The project-level measures are consistent with the PEIR measure and provide additional site- and project-specific details where key special-status species and other species of concern are potentially present. An environmental inspector is not required, but a biological monitor is required under Mitigation Measure M-BI-1c.</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)		Applicable to Proposed Project (Y/N)?	Discussion
Biology (cont.)			
Measure 4.6-3b, Standard Mitigation Measures for Key Special-Status Plants and Animals: Implement measures to reduce impacts on key special-status species. <i>See below for specific species and corresponding sub-PEIR mitigation number.</i>			
Invertebrates			
Valley Elderberry Longhorn Beetle	I.1	N	Species not identified in project vicinity.
Vernal Pool Crustaceans (Vernal Pool Fairy Shrimp; Conservancy Fairy Shrimp; Vernal Pool Tadpole Shrimp)	I.2	N	Species not identified in project vicinity.
Bay Checkerspot Butterfly; Callippe Silverspot Butterfly	I.3	N	Species have a low potential to occur within the project vicinity. No mitigation required.
Central Valley Fall- and Late-Fall-Run DPS Chinook Salmon; Central Valley DPS Steelhead; Green Sturgeon Southern District DPS; Central Coast DPS Steelhead; Rainbow Trout	F.1	N	The central coast steelhead has a low potential to occur within the project vicinity. No mitigation required. Other species not identified in project vicinity.
Reptiles and Amphibians			
California Red-Legged Frog; Foothill Yellow-Legged Frog	RA.1	Y	See Mitigation Measure M-BI-1c (Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle) in the Initial Study. The project-level measures are consistent with the PEIR measure and include site-specific protection measures for all special status species potentially present in the project area. Foothill Yellow-Legged Frog have a low potential to occur within the project vicinity. No mitigation required.
California Tiger Salamander	RA.2	N	Species has a low potential to occur within the project vicinity. No mitigation required.
San Francisco Garter Snake	RA.3	N	Species not identified in project vicinity.
Alameda Whipsnake	RA.4	N	Species has a low potential to occur within the project vicinity. No mitigation required.
Birds			
Swainson's Hawk	B.1	N	Species not identified in project vicinity.
Western Burrowing Owl	B.2 and B.3	N	Species not identified in project vicinity.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Biology (cont.)		
Raptors (including Bald Eagle)	B.4	Y See Mitigation Measure M-BI-1a (Nesting Bird Protection Measures) in the Initial Study. The project-level measures are consistent with the PEIR measure and include site-specific protection measures for all special status species potentially present in the project area.
Least Bell's Vireo	B.5	N Species not identified in project vicinity.
California Black Rail, California Clapper Rail	B.6	N Species has a low potential to occur within the project vicinity. No mitigation required.
Western Snowy Plover	B.7	N Species has a low potential to occur within the project vicinity. No mitigation required.
Mammals		
Salt Marsh Harvest Mouse	M.1	N Species not identified in project vicinity.
San Joaquin Kit Fox	M.2	N Species not identified in project vicinity.
Riparian Woodrat	M.3	N Species not identified in project vicinity.
Plants		
Vernal Pool Plants (Succulent Owl's Clover; Hoover's Spurge; Colusa Grass; San Joaquin Valley Orcutt Grass; Greene's Tuctoria; Hairy Orcutt Grass)	P.1	N Species not identified in project vicinity.
Riparian Plants		
Delta Button-Celery	P.2	N Species not identified in project vicinity.
Large-Flowered Fiddleneck	P.3	N Species not identified in project vicinity.
San Mateo Woolly Sunflower; Marin Western Flax; Fountain Thistle	P.4	N The Marin Western Flax has a low potential to occur within the project vicinity. No mitigation required. The other species were not identified in project vicinity.
Measure 4.6-4, Pipeline and Water Treatment Plant Treated Water Discharge Restrictions: Design planned discharges from the WSIP pipelines and water treatment plants to natural water bodies to minimize impacts on riparian and aquatic resources and to avoid or minimize temperature effects on aquatic resources.	N	The project does not include planned discharges to water bodies, with the exception of contributions to effluent discharge from the Oceanside Water Pollution Control Plant, which would be regulated by NPDES permit requirements..

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Cultural		
<p>Measure 4.7-1, Suspend Construction Work if Paleontological Resource Is Identified: Suspend work and notify a qualified paleontologist when a paleontological resource is discovered at any of the project sites. The paleontologist will document the discovery as needed, evaluate the potential resource, and assess the significance of the find under CEQA criteria. Temporarily halt or divert excavation within 50 feet of a fossil find until the discovery is examined by a paleontologist. If avoidance is not feasible, the paleontologist will prepare an excavation plan.</p>	Y	<p>As detailed in EIR Section 5.2, Cultural and Paleontological Resources, the project-level analysis determined that there is a high potential to encounter and adversely impact paleontological resources within the Colma Formation that underlies part of the project site. The project-level measure is consistent with the PEIR measure and includes instructions to suspend construction work if a paleontological resource is identified (see Mitigation Measure M-CP-3: Accidental Discovery of Paleontological Resources). Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. Also, the mitigation measure for the project-level analysis includes identification training of the SFPUC by a qualified paleontologist.</p>
<p>Measure 4.7-2a, Archaeological Testing, Monitoring, and Treatment of Human Remains: Determine if implementation of an archaeological testing or archaeological monitoring program or both is the appropriate strategy for avoidance of potential adverse effects on significant archaeological resources. Review any requirements approved by the State Historic Preservation Officer. Prepare an archaeological testing plan, archaeological monitoring plan, final archeological resources report and, if applicable, an archaeological data recovery plan. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity will comply with applicable state laws.</p>	Y	<p>See Mitigation Measures M-CP-4 (Accidental Discovery of Human Remains) and Mitigation Measure M-CP- 5 (Archeological Monitoring Program) in EIR Section 5.2, Cultural and Paleontological Resources.</p> <p>As described in EIR Section 5.2, Cultural and Paleontological Resources, earth moving activities could expose and cause impacts on unknown archaeological resources or human remains, particularly along Clement Street from 36th Avenue to 39th Avenue on the south side of Lincoln Park, which would be a significant impact.</p>
<p>Measure 4.7-2b, Accidental Discovery Measures: Distribute archaeological resource “ALERT” sheet to contractors. If an archaeological resource may be present within the project site, an archaeological consultant will evaluate it and make a recommendation as to what action (e.g., preservation in situ) is warranted. The SFPUC will implement appropriate measures.</p>	Y	<p>See Mitigation Measure M-CP-2 (Accidental Discovery of Archaeological Resources) in EIR Section 5.2, Cultural and Paleontological Resources.</p>
<p>Measure 4.7-3, Protection of Historic Districts: A qualified historian will assess the city’s water system facilities affected by WSIP facility projects for their potential contribution to a historic district. If a historic district would be affected by one or more proposed WSIP facility project(s), develop and implement mitigation measures for effects with attention to the potential district as a whole. If a historic district is identified at the project level, it should be recorded as such, using National/California Register criteria of significance. Document the district by completing the State of California Department of Parks and Recreation Form 523 and submit to the State Historic Preservation Officer.</p>	N	<p>As described in the EIR Chapter 5.2, Cultural and Paleontological Resources, the construction of the proposed Oceanside WPCP facilities and the new recycled water distribution pipeline would not affect any historical resources, including those within the Golden Gate Park National Historic District.</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Cultural (cont.)		
Measure 4.7-4a, Alternatives Identification and Resource Relocation: Identify feasible project alternatives to eliminate or reduce the need for demolition or removal of a historic resource to the greatest extent possible. If preservation of the affected historical resource at the current site is determined to be infeasible, the structure will be stabilized and relocated to other appropriate nearby sites, if feasible. After relocation, the resource will be treated according to the Secretary of the Interior's <i>Standards for the Treatment of Historic Properties</i> . If the affected historic resource is to be demolished, consult with local historical societies and governmental agencies regarding salvage of materials for public information or reuse in other locations.	N	No historic resources would be demolished or removed as a result of the project.
Measure 4.7-4b, Historical Resources Documentation: Prepare documentation of historic resources prior to any construction work associated with demolition or removal. The appropriate level of documentation will be selected by a qualified professional who meets the standards for history, architectural history, and/or architecture (as appropriate) set forth by the Secretary of the Interior's <i>Professional Qualification Standards</i> (36 CFR 61) in consultation with a preservation specialist assigned by the San Francisco Planning Department and the local jurisdiction, if deemed appropriate by the Planning Department.	N	No historic resources would be demolished or removed as a result of the project.
Measure 4.7-4c, Secretary of the Interior's Standards for the Treatment of Historic Properties: Prepare materials describing and depicting the proposed project. Review the proposed project for compliance with the Secretary of the Interior's <i>Standards for the Treatment of Historic Properties</i> . If a project is determined to be inconsistent with the <i>Standards for the Treatment of Historic Properties</i> , pursue and implement redesign of the project such that consistency with the standards is achieved.	N	No historic properties would be altered as a result of project implementation.
Measure 4.7-4d, Historic Resources Survey and Redesign: Undertake a historic resources survey to identify and evaluate potential historic resources that may exist in the project's area of potential effect. If a survey identifies one or more historical resources, assess the impact the project may have on those historical resources. If the project will cause a substantial adverse change to a historic resource, assign a preservation specialist to review the proposed project for compliance with the Secretary of the Interior's <i>Standards for the Treatment of Historic Properties</i> . If the project is determined to be inconsistent with those standards, pursue and implement redesign of the project such that consistency with the standards is achieved.	N	The historic resources survey was conducted as part of background technical study for the project and is documented in EIR Section 5.2, Cultural and Paleontological Resources.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Cultural (cont.)		
Measure 4.7-4e, Historic Resources Protection Plan: A qualified historian will prepare a plan that specifies procedures for protecting and monitoring historic resources during construction.	N	No historic properties would be altered as a result of project implementation.
Measure 4.7-4f, Preconstruction Surveys and Vibration Monitoring: Include geotechnical investigations if vibration-related impacts could affect historic resources. Follow recommendations of the final geotechnical reports. Conduct a preconstruction survey of existing conditions and monitor the adjacent buildings for damage during construction, if recommended.	N	Not applicable; no historic resources would be affected as a result of project construction.
Traffic		
Measure 4.8-1a, Traffic Control Plan Measures: Elements of the traffic control plan could include: circulation and detour plans, designated truck routes, sufficient staging area, access to driveways, use of standard construction specifications for controlling construction vehicle movements, restrictions on truck trips during peak morning and evening commute hours, lane closure restrictions, maintenance of alternate one-way traffic flow, detour signing, pedestrian and bicycle access and circulation, equipment and materials storage, construction worker parking, roadside safety protocols, considerations for sensitive land uses, coordination with local transit service providers, roadway repair, and conformance with the state's <i>Manual of Traffic Controls for Construction and Maintenance Work Areas</i> .	N	Not applicable; as described in EIR Section 5.3, to minimize temporary effects on traffic in the vicinity of the construction area, the SFPUC would implement a Construction Management Plan as part of the San Francisco Municipal Transportation Authority's Transportation Advisory Staff Committee (TASC) process. The SFPUC would coordinate with appropriate jurisdictional agencies through the Street Construction Coordination Center of the San Francisco Department of Public Works and the TASC.
Measure 4.8-1b, Coordination of Individual Traffic Control Plans: In the event that more than one construction contract is issued for work along existing or new pipelines, and where construction could occur within and/or across multiple streets in the same vicinity, coordinate the traffic control plans in order to mitigate the impact of traffic disruption by including measures that address overlapping construction schedules and activities, truck arrivals and departures, lane closures and detours, and the adequacy of on-street staging requirements.	N	Not applicable. Implementation of a project-specific Construction Management Plan would require the project to address potential transportation impacts and would require the SFPUC to engage in ongoing coordination with appropriate jurisdictional agencies through the TASC. See Impact C-TR in EIR Section 5.3: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative traffic increases on local and regional roads.
Measure 4.8-4, Accommodation of Displaced Public Parking Supply for Recreational Visitors: Include an additional measure in the traffic control plans to accommodate any anticipated visitor parking demand that would be displaced by proposed projects at public recreational facilities.	N	Since publication of the PEIR, the significance criterion specifically pertaining to displacement of on-street parking has been deleted from the San Francisco Planning Department's initial study checklist.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Air Quality		
<p>Measure 4.9-1a, SJVAPCD Dust Control Measures: Include San Joaquin Valley Air Pollution Control District (SJVAPCD) Basic Control Measures in contract specifications for all construction sites. Include SJVAPCD Enhanced Control Measures in contract specifications when required to mitigate significant PM10 impacts. Include SJVAPCD Additional Control Measures in contract specifications for construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions. Include SJVAPCD Rule 9510, Indirect Source Review, Section 6.1, Construction Equipment Emissions in contract specifications for any project subject to discretionary approval by a public agency that ultimately results in the construction of a new building, facility, or structure or reconstruction of a building, facility, or structure for the purpose of increasing capacity or activity and also involving 9,000 square feet of space.</p>	N	The project is not located within the jurisdiction of the SJVAPCD.
<p>Measure 4.9-1b, SJVAPCD Exhaust Control Measures: Include SJVAPCD Exhaust Control Measures in contract specifications, where applicable, for heavy-duty equipment to limit exhaust emissions within the San Joaquin Region.</p>	N	The project is not located within the jurisdiction of the SJVAPCD.
<p>Measure 4.9-1c, BAAQMD Dust Control Measures: For projects in the Sunol Valley, Bay Division, Peninsula, and San Francisco Regions, include Bay Area Air Quality Management District (BAAQMD) Basic Control Measures in contract specifications for all construction sites. Include BAAQMD Enhanced Control Measures in contract specifications for sites over four acres. Include BAAQMD Optional Control Measures in contract specifications for sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions.</p>	N	Not applicable; the SFPUC would comply with the San Francisco Construction Dust Control Ordinance (Ordinance No. 176-08), which requires the project sponsor to designate an individual to monitor compliance with dust control requirements.
<p>Measure 4.9-1d, BAAQMD Exhaust Control Measures: For projects in the Sunol Valley, Bay Division, Peninsula, and San Francisco Regions, include BAAQMD Exhaust Control Measures to limit exhaust emissions, where applicable.</p>	Y	<p>See Mitigation Measure M-AQ-1 (Construction Emissions Minimization) in EIR Section 5.5.</p> <p>This measure requires that average construction related NOx emissions from all overlapping project components not exceed 54 pounds per day and confirms through the submission of an inventory of off-road construction equipment by the contractor to the SPUC.</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Air Quality (cont.)		
Measure 4.9-2a, Health Risk Screening or Use of Soot Filters: Complete a health risk screening if truck volumes associated with a particular project along a particular haul route exceed 40,000 truck trips over the entire construction period. If a potentially significant impact is indicated, complete a site-specific health risk assessment. Consider diesel particulate matter (DPM) emission rates in separate project-level analysis at the time of construction. Develop a mitigation program based on the site-specific health risk assessment implementing methods of reducing DPM emission or exposure to a less-than-significant level.	N	See Impact AQ-3 in EIR Section 5.5: The proposed project's construction activities would generate TACs, including DPM, but would not expose sensitive receptors to substantial pollutant concentrations. The project-level analysis determined that during construction emissions would be short-term and variable in nature and would not be expected to expose sensitive receptors to substantial air pollutants in areas outside Air Pollutant Exposure Zones, which only includes Oceanside WPCP. Also, the analysis determined that there are no sensitive receptors located near the Oceanside WPCP. Furthermore, the project would be subject to, and would comply with, California regulations limiting idling to no more than 5 minutes. Therefore, this measure is not necessary.
Measure 4.9-2b, Vacate SFPUC Land Managers' Residences in Sunol Valley: Vacate the two SFPUC Land Managers' residences in the Sunol Valley during construction of the Calaveras Dam or SVWTP – Treated Water Reservoirs projects or complete a health risk screening (and, if warranted, a health risk assessment) to determine health risks at these residences from either of these two projects.	N	The project is not located in the Sunol Valley.
Measure 4.9-3, Tunnel Gas Odor Control: Add water scrubbers and appropriate chemicals to tunnel ventilation systems if odorous gases become a nuisance odor problem (i.e., odor complaints are received).	N	The project-level analysis determined that the project would entail trenchless construction (most likely auger boring, but perhaps pipe ramming or jack-and-bore) to cross under MUNI rail lines (See EIR Chapter 3). No tunnel emissions are expected due to these activities. Therefore, this measure is not necessary.
Noise/Vibration		
Measure 4.10-1a, Noise Controls: For all WSIP projects located within 500 feet of any noise-sensitive receptors, implement appropriate noise controls to reduce daytime construction noise levels to meet the 70-dBA daytime speech interference criterion to the extent feasible. For all WSIP projects involving nighttime construction and located within 3,000 feet of any noise-sensitive receptors, implement appropriate noise controls to maintain noise levels at or below any applicable ordinance nighttime noise limits or the 50-dBA nighttime sleep interference criterion to the extent feasible.	N	See Impact NO-3 in the EIR: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code). Therefore, this measure is not necessary.
Measure 4.10-1b, Vacate SFPUC Caretaker's Residence at Tesla Portal: Vacate caretaker's residence at Tesla Portal during construction of the Advanced Disinfection and Tesla Portal Disinfection Station projects as well as those portions of the San Joaquin Pipeline System and Rehabilitation of Existing San Joaquin Pipelines projects located at Tesla Portal.	N	The project is not located at the Tesla Portal.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Noise/Vibration (cont.)		
<p>Measure 4.10-2a, Limit Hourly Truck Volumes: Haul and delivery truck routes for all WSIP projects will, to the extent feasible, avoid local residential streets and follow local designated truck routes. Total project-related haul and delivery truck volumes on any particular haul truck route will be limited to 80 trucks per hour.</p>	N	<p>See Impact NO-3 in EIR Section 5.4: Construction of the project would not result in a substantial temporary increase in ambient noise levels at the closest residential receptors, and would not expose persons to substantial noise levels in excess of standards established in the Noise Ordinance (Article 29 of the Police Code).</p> <p>The project would implement a Construction Management Plan that would minimize the use of local roadways and residential streets. Also, project construction would occur primarily during daytime hours, five days a week on nonholiday weekdays. Therefore, this measure is not necessary.</p>
<p>Measure 4.10-2b, Restrict Truck Operations: Prohibit haul and delivery trucks from operating within 200 feet of any residential uses during the nighttime hours. For receptors beyond 200 feet from a haul route, limit noise levels to the 50-dBA sleep interference criterion at the closest receptor.</p>	N	<p>Not applicable; project-level analysis indicates that project construction would be conducted primarily during daytime hours, five days a week on nonholiday weekdays (See EIR Section 5.4).</p>
<p>Measure 4.10-2c, Vacate SFPUC Land Manager's Residence: Vacate Land Manager's residence adjacent to Alameda East Portal during offsite truck operations associated with the New Irvington Tunnel project, if truck operations occur during the nighttime hours (10 p.m. to 7 a.m.) and are estimated to exceed the 50-dBA sleep interference criterion at this residence.</p>	N	<p>Not applicable; the project is not located in the vicinity of the Alameda East Portal.</p>
<p>Measure 4.10-3a, Vibration Controls to Prevent Cosmetic or Structural Damage: Incorporate restrictions into all contract specifications (primarily for sheetpile driving, pile driving, or tunnel construction activities), whereby surface vibration will be limited to 0.2 inch/second peak particle velocity (PPV) for continuous vibration (e.g., vibratory equipment and impact pile drivers) and 0.5 inch/second PPV for controlled detonations at the closest receptors to ensure that cosmetic or structural damage does not occur.</p>	N	<p>See Impact NO-1 in the Initial Study: The project would not result in substantial groundborne vibration or groundborne noise levels. The project-level analysis applied a 0.5-in/sec PPV vibration significance threshold for adjacent buildings from construction equipment and determined that equipment proposed for use at the project site would have vibrational effects well below the threshold.</p>
<p>Measure 4.10-3b, Limit Vibration Levels At or Below Vibration Perception Threshold: Maintain vibration levels at or below the vibration perception threshold at adjacent properties to the extent feasible during nighttime. If vibration complaints are received, operational adjustments will be made to reduce vibration annoyance effects.</p>	N	<p>See Impact NO-1 in the Initial Study: The project would not result in substantial groundborne vibration or groundborne noise levels. The project-level analysis applied a 0.5-in/sec PPV vibration significance threshold for adjacent buildings from construction equipment and determined that equipment proposed for use at the project site would have vibrational effects well below the threshold. No additional mitigation is necessary.</p>
<p>Measure 4.10-3c, Limit Tunnel-Related Detonation to Daylight Hours: Limit controlled detonation associated with tunnel construction to daylight hours, Monday through Saturday.</p>	N	<p>Not applicable; project-level analysis indicates that project construction would be conducted primarily during daytime hours, five days a week on nonholiday weekdays (see EIR Section 5.4).</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Services/Utilities		
Measure 4.11-1a, Notify Neighbors of Potential Utility Service Disruption: Notify residents and businesses in project area of potential utility service disruption two to four days in advance of construction.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. The project-level analysis determined the project would be in compliance with relevant provisions of the Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool. No additional measures would be necessary.
Measure 4.11-1b, Locate Utility Lines Prior to Excavation: Locate overhead and underground utility lines prior to excavation work.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. Prior to construction activities, the SFPUC or its contractor(s) would determine the locations of overhead and underground utility lines, such as natural gas, electricity, sewer, telephone, cable, fuel, water, and MUNI lines, that may be encountered during construction work. The project-level analysis determined the project would be in compliance with relevant provisions of Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool.
Measure 4.11-1c, Confirmation of Utility Line Information: Find the exact location of underground utilities by safe and acceptable means. Confirm information regarding the size, color, and location of existing utilities before construction activities commence.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. Utilities may be located by customary techniques such as geophysical methods and hand excavation. Pursuant to State law, the SFPUC or its contractor(s) is required to notify USA North so that utility companies may be advised of the work and may field-mark or otherwise protect and warn the contractor of their existing utility lines. The project-level analysis determined the project would be in compliance with relevant provisions of Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool. No additional measures would be necessary.
Measure 4.11-1d, Safeguard Employees from Potential Accidents Related to Underground Utilities: While any excavation is open, protect, support, or remove underground utilities as necessary to safeguard employees.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. As required by Cal/OSHA (Section 1926.651), while any excavation is open, the SFPUC or its contractors would protect, support, or remove underground utilities as necessary to safeguard employees.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Services/Utilities (cont.)		
Measure 4.11-1e, Notify Local Fire Departments: Notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. As required by Cal/OSHA, the SFPUC or its contractor(s) would develop an emergency response plan prior to commencing construction activities. In response to a leak, the SFPUC or its contractor(s) would notify the appropriate emergency response department whenever damage to any utility results in a threat to public safety. No additional measure is necessary.
Measure 4.11-1f, Emergency Response Plan: Develop an emergency response plan in the event of a leak or explosion prior to commencing construction activities.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. As required by Cal/OSHA, the SFPUC or its contractor(s) would develop an emergency response plan prior to commencing construction activities. In response to a leak or explosion, the SFPUC or its contractor(s) would notify the appropriate emergency response department whenever damage to any utility results in a threat to public safety.
Measure 4.11-2g, Prompt Reconnection of Utilities: Promptly reconnect any disconnected utility lines.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. The SFPUC or its contractor(s) would promptly notify utility providers to reconnect any disconnected utility lines as soon as it is safe to do so.
Measure 4.11-1h, Coordinate Final Construction Plans with Affected Utilities: Coordinate final construction plans and specifications with affected utilities.	N	See Impact UT-5 in the Initial Study: Project construction would not result in a substantial adverse effect related to disruption, relocation, accidental damage to existing utilities. No additional measure would be necessary. The project-level analysis determined the project would be in compliance with relevant provisions of Public Works codes, Cal/OSHA requirements, and SFDPW's Envista Utility Coordination tool.
Measure 4.11-2, Waste Reduction Measures: Incorporate into contract specifications for each WSIP project the requirement to obtain any necessary waste management permits prior to construction and to comply with conditions of approval attached to project implementation.	N	See Impact UT-4 from the Initial Study: The construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste. The project would be in compliance with San Francisco Construction and Demolition Ordinance (Ordinance No. 27-06), which requires that a minimum of 65 percent of all construction and demolition debris be recycled and diverted from landfills. The project would also be in compliance with the Mandatory Recycling and Composting Ordinance (City's Ordinance 100-09). No additional measures would be necessary.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Recreation		
Measure 4.12-1, Coordination with Golf Course/Recreational Facility Managers: Coordinate with managers of golf courses or other recreational facilities directly affected by pipeline construction to minimize adverse impacts on golfers and other recreational users.	N	See Impact RE-1 in the Initial Study: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities resulting in, substantial physical deterioration or degradation of the facilities. Project construction activities could require short-term closure of a trail located north of Lincoln Way/34th Avenue, between Lincoln Way and Middle Drive West, for approximately one week, and potential closure of narrow park roadways, such as Overlook Drive, during pipeline construction. However, these areas would be restored to conditions similar to pre-project conditions following pipeline construction (see Section A.6.2, Construction). Additional measures would be necessary.
Measure 4.12-2, Appropriate Siting of Proposed Facilities: Locate WSIP project facilities on park and recreation properties in consultation with park planning staff to minimize the direct loss of recreation and play space and to minimize inconvenience to park and recreation users.	N	Not applicable. The proposed project would not permanently affect existing recreation resources. The proposed facilities would not be located on active play fields or high visitor use areas of Golden Gate Park. The fenced area around the existing Central Reservoir facility in Golden Gate Park may be slightly enlarged under the proposed project, but would not affect recreation use areas. All areas where pipeline would be installed through recreation areas would be restored to conditions similar to pre-project condition after construction. All other proposed facilities would not affect park or recreation properties. No additional measures would be necessary.
Agriculture		
Measure 4.13-1a, Supplemental Noticing and Soil Stockpiling: For the San Joaquin Pipeline projects (San Joaquin System and Rehabilitation of Existing San Joaquin Pipeline), stockpile and replace topsoil in mapped areas of Prime and Unique Farmland and Farmland of Statewide Importance that would be temporarily disturbed by pipeline construction, unless other actions are required under specific agreements with individual landowners.	N	The project is not located in the San Joaquin Region.
Measure 4.13-1b, Avoidance or Soil Stockpiling: Minimize any potential impacts on agricultural lands in the Sunol Valley by avoiding these resources wherever possible. Where this is not possible, stockpile, replace, and hydroseed topsoil to prevent erosion, unless other actions are required as a result of contracts affecting use of the property or under specific agreements with individual landowners.	N	The project is not located in the Sunol Valley Region.
Measure 4.13-2, Siting Facilities to Avoid Prime Farmland: Avoid areas identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. If avoidance is not feasible, adopt a permanent set-aside for an equivalent acreage of similarly valued farmland in the area.	N	Not applicable; the project would not affect agricultural resources. See Section E.18, Agriculture and Forest Resources, in the Initial Study.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Hazards		
<p>Measure 4.14-1a, Site Health and Safety Plan: For all projects where the site assessment indicates the potential to encounter hazardous materials, prepare a site health and safety plan identifying the chemicals present, potential health and safety hazards, monitoring, soil-handling methods, appropriate personnel protective equipment, and emergency response procedures.</p>	N	<p>See Impact HZ-2 in the Initial Study: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose worker and the public to adverse effects from release of hazardous materials. If a previously unidentified UST were encountered, the SFPUC would be required to close the UST in accordance with Article 21 of the <i>San Francisco Health Code</i>. The SFPUC would be required to submit a corrective action plan, including a community health and safety plan, to SFPUC and the RWQCB if a release occurred. Other impacts from exposure to hazardous materials would be less than significant with the project in compliance with Article 22a of the San Francisco Public Health Code, Article 4.1 of the San Francisco Public Health Code (supplemented by Order No. 158170); and state and federal regulations regarding disposal of contaminated waste.</p>
<p>Measure 4.14-1b, Materials Disposal Plan: For all projects where the site assessment indicates the potential to encounter hazardous materials in the soil, prepare a materials disposal plan that specifies the disposal method and approved disposal site for the soil.</p>	N	<p>See Impact HZ-2 in the Initial Study: The proposed project would be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but excavation activities would not expose worker and the public to adverse effects from release of hazardous materials. As the generator of the hazardous wastes, the project sponsor would be required to follow state and federal regulations for manifesting the wastes, using licensed waste haulers, and disposing the materials at a permitted disposal or recycling facility. Also groundwater produced by dewatering would be discharged to the combined sewer system in compliance with Article 4.1 of the <i>San Francisco Public Works Code</i> as supplemented by Order No. 158170.</p>
<p>Measure 4.14-1c, Coordination with Property Owners and Regulatory Agencies: Based on regulatory agency file reviews, assess the potential to encounter unacceptable levels of hazardous materials at known environmental cases, for construction activities to cause groundwater plume migration or interfere with ongoing remediations at known environmental cases, and for increased water levels in reservoirs or lakes to inundate known environmental cases. Modify construction or remediation activities.</p>	N	<p>The project is not expected to interfere with the investigation or remediation of a known environmental case. The project-level analysis identified environmental cases within the project area (see Impact HZ-2 in the Initial Study). Compliance with Article 21 of the San Francisco Health Code would ensure that hazardous materials impacts associated with encountering previously unidentified USTs would be less than significant. Also, compliance with Article 22A of the San Francisco Public Health Code would ensure the proposed project would result in less-than-significant impacts related to construction within contaminated materials. No additional measures are necessary.</p>
<p>Measure 4.14-2, Health Risk Screening and Airborne Asbestos Monitoring Plan: For tunneling projects where soil or rock may contain naturally occurring asbestos, conduct a health risk screening assessment to identify acceptable levels of asbestos in tunnel emissions. Prepare an airborne asbestos monitoring plan for approval by the BAAQMD.</p>	N	<p>The project would not disturb a rock unit or soil that contains naturally occurring asbestos.</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Hazards (cont.)		
<p>Measure 4.14-5, Hazardous Building Materials Surveys and Abatement: For all WSIP projects involving demolition or renovation of existing facilities, perform a hazardous building materials survey for each structure prior to demolition or renovation activities. If any friable asbestos-containing materials, lead-containing materials, or hazardous components of building materials are identified, implement adequate abatement practices prior to demolition or renovation.</p>	N	<p>The project-level analysis determined the interior of the existing chemical building (Building 510) at the Oceanside WPCP would be reconfigured to house chemical storage tanks and feed systems for the recycled water process, which could result in exposure to hazardous material. Also, the pump station which would be expanded at the Central Reservoir site may also include these materials. The project would conduct a SFPUC hazardous building materials survey. If hazardous materials are present, the project would follow procedures required by the Lead in Construction Standard (8 CCR Section 1532.1); be in compliance with BAAQMD asbestos abatement requirements; and remove and dispose of electric transformers that contain PCBs, fluorescent light ballasts that contain PCBs or DEHP, and fluorescent light tubes in accordance with the established regulatory framework explained under Impact HZ-3 in the Initial Study.</p>
Energy		
<p>Measure 4.15-2, Incorporation of Energy Efficiency Measures: Consistent with the Energy Action Plan II priorities for reducing energy usage, ensure that energy-efficient equipment is used in all WSIP projects. Prepare a repair and maintenance plan for each facility to minimize power use. Evaluate the potential for use of renewable energy resources.</p>	N	<p>See Impact ME-1 in the Initial Study : The project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. The project-level analysis determined the project energy demand would be typical for a development of similar scope and nature and would comply with current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection and San Francisco Green Building Ordinance (Ordinance No. 180-08), which includes energy efficiency requirements. No additional measures are necessary.</p>
Collective Impacts (These are considered cumulative mitigation measures in project-level CEQA documents)		
<p>Measure 4.16-1a, Construction Coordination at Irvington Portal: If construction schedules of multiple WSIP projects occurring at and near Irvington Portal coincide or overlap, the SFPUC will coordinate with construction contractor(s) and neighbors to minimize disturbance of residents in the adjacent neighborhood to the extent practicable. Such coordination will need to balance the duration of construction with the magnitude of construction-related impacts on the same sensitive receptors.</p>	N	<p>The project is not located at the Irvington Portal.</p>

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Collective Impacts (These are considered cumulative mitigation measures in project-level CEQA documents) (cont.)		
Measure 4.16-4a, Bioregional Habitat Restoration Measures: Address the following bioregional effects and implement conservation principles when implementing habitat compensation mitigation required for individual WSIP facility projects: compound impacts on functional units of habitat as WSIP projects simplify vegetation structure and increase “edge” (the boundary between two different habitats); increased habitat impacts due to the spread of weedy, non-native plant species; genetic diversity impacts on small populations; impacts on wildlife movement due to habitat fragmentation; suppression of natural disturbance regimes; and reduced population recovery opportunities from stochastic events.	N	See Impact C-BI-1 in the Initial Study: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in significant cumulative impacts on biological resources. The project’s contribution to cumulative effects on biological resources would be mitigated with project-specific mitigation measures and therefore would not require implementation of bioregional habitat restoration measures.
Measure 4.16-4b, Coordination of Construction Staging and Access: Coordinate construction contractor(s) to minimize surface disturbance when construction schedules for WSIP projects affecting the same areas overlap.	N	Not required. As described under Impact HZ-5 in the Initial Study and in EIR Section 5.3, Transportation and Circulation, as part of the TASC process, the SFPUC would develop a Construction Management Plan. As part of this plan, SFPUC would be required to engage in ongoing coordination with appropriate jurisdictional agencies through the TASC. Also see EIR Section 5.3 for more information about the Construction Management Plan.
Measure 4.16-6a, SFPUC WSIP Projects Construction Coordinator: Identify a qualified construction coordinator to coordinate project-specific traffic control plans; develop a public information campaign to inform the public of construction activities, detour routes, and alternate routes; and work with local and regional agencies to pursue additional traffic mitigation measures and incorporate such measures into the project-specific traffic control plans.	N	Not required. As described under Impact HZ-5 in the Initial Study and in EIR Section 5.3, Transportation and Circulation, as part of the TASC process, the SFPUC would develop a Construction Management Plan. As part of this plan, SFPUC would be required to engage in ongoing coordination with appropriate jurisdictional agencies through the TASC. See EIR Section 5.3 for more information about the Construction Management Plan.
Measure 4.16-6b, Combined San Joaquin Traffic Control Plan: Develop a San Joaquin Traffic Control Plan that coordinates the project-specific traffic control plans and identifies additional measures (consistent with the standards of San Joaquin County, Stanislaus County, and Caltrans) to minimize the combined impacts of multiple WSIP project construction traffic on I-580, Chrisman Road, and Vernalis Road.	N	The project is not located in San Joaquin County.
Measure 4.16-6c, Combined Sunol Valley Traffic Control Plan: Develop a Sunol Valley Traffic Control Plan that coordinates the project-specific traffic control plans and identifies additional measures (consistent with the standards of Alameda County and Caltrans) to minimize the impacts of construction traffic on Calaveras Road and I-680.	N	The project is not located in the Sunol Valley.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Collective Impacts (These are considered cumulative mitigation measures in project-level CEQA documents) (cont.)		
Measure 4.16-7a, Dust and Exhaust Control Measures for All WSIP Projects: Require implementation of Air Quality Measures 4.9-1a thru 4.9-1d for all WSIP projects to address collective construction-related air quality impacts.	N	Regarding fugitive dust, compliance with the Dust Control Ordinance would ensure that construction-related fugitive dust impacts associated with the project would be less than significant (see EIR Section 5.5).
Measure 4.16-7b, Health Risk Screening or Use of Soot Filters for All Projects in the San Joaquin and Sunol Valley Regions: Require Measure 4.9-2a for all WSIP projects in the San Joaquin and Sunol Valley Regions to address collective DPM impacts. When this requirement is applied to the New Irvington Tunnel project, it will be applied to both the Sunol Valley and Fremont tunnel portals, taking into account truck traffic from other WSIP projects in the vicinity of both portals.	N	The project is not located in the San Joaquin or Sunol Valley Regions.
Measure 4.16-7c, Vacate SFPUC Land Managers' Residences for All Projects in the Sunol Valley Region: Require Measure 4.9-2b for all WSIP projects in the Sunol Valley Region to address collective DPM impacts.	N	The project is not located in the Sunol Valley Region.
Measure 4.16-8a, Limiting Hourly Truck Volumes and Restricting Truck Operations on Haul Routes for Multiple WSIP Projects: Apply Measures 4.10-2a and 4.10-2b to total haul and delivery truck volumes attributable to all WSIP projects on any particular haul truck route (including haul routes in the Tesla Portal, Irvington Portal, and Lower Crystal Springs Dam vicinities as well as haul routes in the San Francisco Region) to address collective truck-related noise impacts.	N	Not applicable; See Impact C-NO in EIR Section 5.4: The proposed project would not result in a significant cumulative noise impact.
Measure 4.16-8b, Vacate Land Manager's Residence for All Projects in Sunol Valley Region: To address collective noise impacts, vacate Land Manager's residence adjacent to Alameda East Portal during construction truck operations associated with all WSIP projects in this region if collective daytime truck volumes exceed the 70-dBA speech interference criterion or nighttime truck volumes exceed the 50-dBA sleep interference criterion.	N	The project would not be located in the Sunol Valley Region.
Cumulative Effects		
Measure 4.17-6, SFPUC WSIP Projects Construction Coordinator – Other Agencies: The SFPUC WSIP construction coordinator designated in accordance with Measure 4.16-6a will also consider the effects of any traffic generated by SFPUC maintenance activities and other SFPUC projects; and coordinate with Caltrans, other county agencies, and local jurisdictions regarding construction of other private and public development projects so as to minimize traffic impacts on local access roads.	N	Not required. As described under Impact HZ-5 in the Initial Study and in EIR Section 5.3, Transportation and Circulation, as part of the TASC process, the SFPUC would develop a Construction Management Plan. As part of this plan, SFPUC would be required to engage in ongoing coordination with appropriate jurisdictional agencies through the TASC.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Cumulative Effects (cont.)		
Measure 4.17-8, Coordination of Truck Traffic on Local Streets: The SFPUC WSIP construction coordinator designated in Measure 4.17-6 will also be responsible for coordinating truck traffic generated on these same streets by SFPUC maintenance activities and other SFPUC projects so that SFPUC-related truck noise increases are maintained at or below threshold levels specified in Measures 4.10-2a and 4.10-2b to the extent feasible.	N	Not required. As described under Impact HZ-5 in the Initial Study and in EIR Section 5.3, Transportation and Circulation, as part of the TASC process, the SFPUC would develop a Construction Management Plan. As part of this plan, SFPUC would be required to engage in ongoing coordination with appropriate jurisdictional agencies through the TASC.
Westside Groundwater Basin Resources		
Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield: The SFPUC will continue ongoing studies, including the existing groundwater and lake level monitoring programs, to determine the safe yield of the North Westside Groundwater Basin in order to avoid overdraft and associated effects including adverse effects on surface water features and seawater intrusion. Using this data, the SFPUC will develop and implement a plan identifying appropriate pumping patterns to avoid overdraft and the undesirable effects associated with overdraft. The plan will establish both a regular (average annual) and an intermittent (dry year or emergency) yield as well as a strategy for modifying pumping patterns such that the pumping levels can be sustained as an ongoing reliable water supply without depletion of groundwater storage or degradation of water quality.	N	See Impact HY-3 in the Initial Study: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. One of the goals of the project is to use of recycled water to replace use of groundwater currently used for irrigation and lake/pond fill at Golden Gate Park. Any dewatering that may be necessary due to excavation for the project, would be limited and would not affect groundwater flows in the underlying aquifer. There would be no long-term extraction of groundwater.
Measure 5.6-2, Implementation of a Lake Level Management Plan: The SFPUC will develop and implement a lake level management plan identifying strategies for altering pumping patterns or lake augmentation to maintain Lake Merced water levels within the desired long-term range should monitoring conducted under Measure 5.6-1 indicate the potential for adverse effects on lake levels due to groundwater pumping. The SFPUC will coordinate the implementation of this measure with Measure 5.6-1.	N	See Impact HY-3 in the Initial Study: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
Measure 5.6-5, Drinking Water Source Assessments for Groundwater Wells: As required by the California Department of Health Services and incorporated as part of the WSIP, the SFPUC will prepare drinking water source assessments for groundwater wells constructed under the Local and Regional Groundwater Projects (SF-2) and will update these assessments every five years. If the assessment indicates no potential for contamination, then no mitigation is required. However, for wells that are considered vulnerable to contamination on the basis of the drinking water source assessment, the SFPUC will develop and implement a source water protection program specifying actions and a program to be implemented to prevent contamination of the drinking water source.	N	The project does not propose use of any new or existing groundwater wells.

TABLE B-2 (Continued)
PEIR MITIGATION MEASURES – CONSISTENCY REVIEW FOR THE SAN FRANCISCO WESTSIDE RECYLED WATER PROJECT

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Westside Groundwater Basin Resources (cont.)		
<p>Measure 5.6-5 (cont.)</p> <p>The source water protection program could include nonregulatory components such as watershed restoration, stormwater monitoring, groundwater monitoring, and public education to protect drinking water quality. Land use planning, permitting, and possibly more restrictive regulatory methods may also be implemented by the local municipality where a threat to drinking water quality is indicated, and management of potential sources of microbiological or direct chemical contamination to eliminate or reduce the risk of contamination of the water supply may be considered. The SFPUC will encourage public participation in the development of the program and will update the program every five years along with the drinking water source assessments.</p>		