



SAN FRANCISCO PLANNING DEPARTMENT

December 30, 2009

TO: Responsible Agencies, Trustee Agencies, and Interested Parties

RE: **CASE NO. 2008.1122E – SAN FRANCISCO GROUNDWATER SUPPLY PROJECT**
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND
NOTICE OF PUBLIC SCOPING MEETING

A 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 NOP and Notice of Public Scoping Meeting is either attached or is available upon request from Jamie Dean, who may be reached at (415) 575-9028 or jamie.dean@sfgov.org, or by mail at the above address. It is also available online at <http://mea.sfplanning.org>. 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 purpose of the San Francisco Groundwater Supply Project (project or proposed project) is to provide an average of four million gallons per day (mgd) of groundwater to San Francisco's municipal water supply. Groundwater would be blended with San Francisco's existing municipal water supply for distribution within San Francisco. The groundwater would be pumped from the North Westside Groundwater Basin, which is located within the larger Westside Groundwater Basin and underlies parts of San Francisco and San Mateo Counties. Facilities required to implement the project, including groundwater production well facilities, would be located on the western side of the city of San Francisco on property owned by the City and County of San Francisco, and managed by the San Francisco Public Utilities Commission (SFPUC) or the San Francisco Recreation and Park Department.

Under the proposed project, the SFPUC would construct and operate six potable groundwater production well facilities. Although nine locations are currently under consideration for the groundwater production well facilities, only six facilities would be constructed—two that would be converted from existing irrigation well facilities, and four new well facilities. Each well facility would include a groundwater production well and a pump station. The SFPUC would also construct a distribution system (including pipelines and connection points) that would connect five of the well facilities to Sunset Reservoir; the sixth well would connect to the existing Lake Merced Pump Station, and would require a short length of distribution piping to make this connection. The project would be implemented in two phases: (1) construction and operation of the four new well facilities to supply an annual average of approximately 2.5 mgd of groundwater, and construction of well facilities required to convert two existing irrigation well facilities to potable water well facilities; and (2) operation of the converted irrigation wells to provide an additional annual average of approximately 1.5 mgd of groundwater.

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 the project, as a component of the WSIP, would contribute to meeting the overall

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

WSIP goals and objectives, by diversifying water supply options during drought and nondrought periods and improving the use of new water sources and drought management.

Pursuant to the NOP, the San Francisco Planning Department has determined that an EIR must be prepared for the project prior to any final decision by the SFPUC regarding whether to approve and implement the project. The purpose of the EIR is to provide information about potentially significant adverse environmental effects of the project, to identify possible ways to minimize any potentially significant adverse effects, and to describe and analyze feasible alternatives to the project. Preparation of a NOP or EIR does not indicate a decision by the City of San Francisco to approve or to disapprove the project, and prior to making any such decision, the SFPUC must review and consider the information contained in the EIR.

The San Francisco Planning Department will hold a **PUBLIC SCOPING MEETING** at the location, date, and time 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. The Planning Department also will accept written comments at the meeting or by mail, email, or fax until the close of business (5:00 p.m.) on January 30, 2010. Written comments should be sent by mail to San Francisco Planning Department, Attn: Bill Wycko, Environmental Review Officer, San Francisco Groundwater Supply Project Scoping Comments, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479; by fax to (415) 558-6409; or by e-mail to jamie.dean@sfgov.org.

PUBLIC SCOPING MEETING LOCATION, DATE, AND TIME:

Golden Gate Park Senior Center – San Francisco
Wednesday, January 20, 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 proposed 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 under CEQA, please contact Jamie Dean at (415) 575-9028 or jamie.dean@sfgov.org.



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: December 30, 2009
Case No.: **2008.1122E**
Project Title: **San Francisco Groundwater Supply Project**
Location: The project is located in the North Westside Groundwater Basin, which is within the larger Westside Groundwater Basin underlying parts of San Francisco and San Mateo Counties. Project facilities would be constructed in the Sunset District of San Francisco and in Golden Gate Park.

BPA Nos.: N/A
Zoning: N/A
Block/Lot: N/A
Lot Size: Various
Project Sponsor: Jeff Gilman, San Francisco Public Utilities Commission (415) 551-2952
Lead Agency: San Francisco Planning Department
Staff Contact: Jamie Dean – (415) 575-9028; jamie.dean@sfgov.org

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PROJECT DESCRIPTION

The purpose of the San Francisco Groundwater Supply Project (project or proposed project) is to provide an average of four million gallons per day (mgd) of groundwater to San Francisco's municipal water supply. Groundwater would be blended with San Francisco's existing municipal water supply for distribution within San Francisco. The groundwater would be pumped from the North Westside Groundwater Basin, which is located within the larger Westside Groundwater Basin that underlies parts of San Francisco and San Mateo Counties. Facilities required to implement the project, including groundwater production well facilities, would be located on the western side of the city of San Francisco on property owned by the City and County of San Francisco (CCSF), and managed by the San Francisco Public Utilities Commission (SFPUC) or the San Francisco Recreation and Park Department.

Under the proposed project, the SFPUC would construct and operate six potable groundwater production well facilities. Although nine locations are currently under consideration for the groundwater production well facilities, only six facilities would be constructed—two that would be converted from existing irrigation well facilities and four new well facilities. Each facility would include a groundwater production well and a pump station. The SFPUC would also construct a distribution system (including pipelines and connection points) that would connect five of the well facilities to Sunset Reservoir; the sixth well would connect to the existing Lake Merced Pump Station, and would require a short length of distribution piping to make this connection. The project would be implemented in two phases: (1) construction and operation of the four new well facilities to supply an annual average of approximately 2.5 mgd of groundwater, and construction of well facilities required to convert the two existing irrigation

well facilities to potable water well facilities; and (2) operation of the converted irrigation wells to provide an additional annual average of approximately 1.5 mgd of groundwater.

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 the project, as a component of the WSIP, would contribute to meeting the overall WSIP goals and objectives by diversifying water supply options during drought and nondrought periods and improving the use of new water sources and drought management.

FINDING

This project may have a significant effect on the environment and an Environmental Impact Report is required. This determination is based upon the criteria of the State CEQA Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance) and for the reasons documented in the attached project description and description of potential environmental effects.

PUBLIC SCOPING PROCESS

Pursuant to the State of 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 **January 20, 2010, 7:00 PM** (starting promptly) at the **Golden Gate Park Senior Center, 6101 Fulton Street (at 37th Avenue), San Francisco, CA 94121**. Written comments will also be accepted at this meeting and until the close of business on January 30, 2010. Written comments should be sent to by mail to the San Francisco Planning Department, Attn: Bill Wycko, Environmental Review Officer, San Francisco Groundwater Supply Project Scoping Comments, 1650 Mission Street, Suite 400, San Francisco, CA 94103; by fax to (415) 558-6409; or by e-mail to jamie.dean@sfgov.org.

If you work for a Responsible or Trustee 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.

December 18, 2009
Date


Bill Wycko
Environmental Review Officer

NOTICE OF PREPARATION

San Francisco Groundwater Supply Project Case No. 2008.1122E

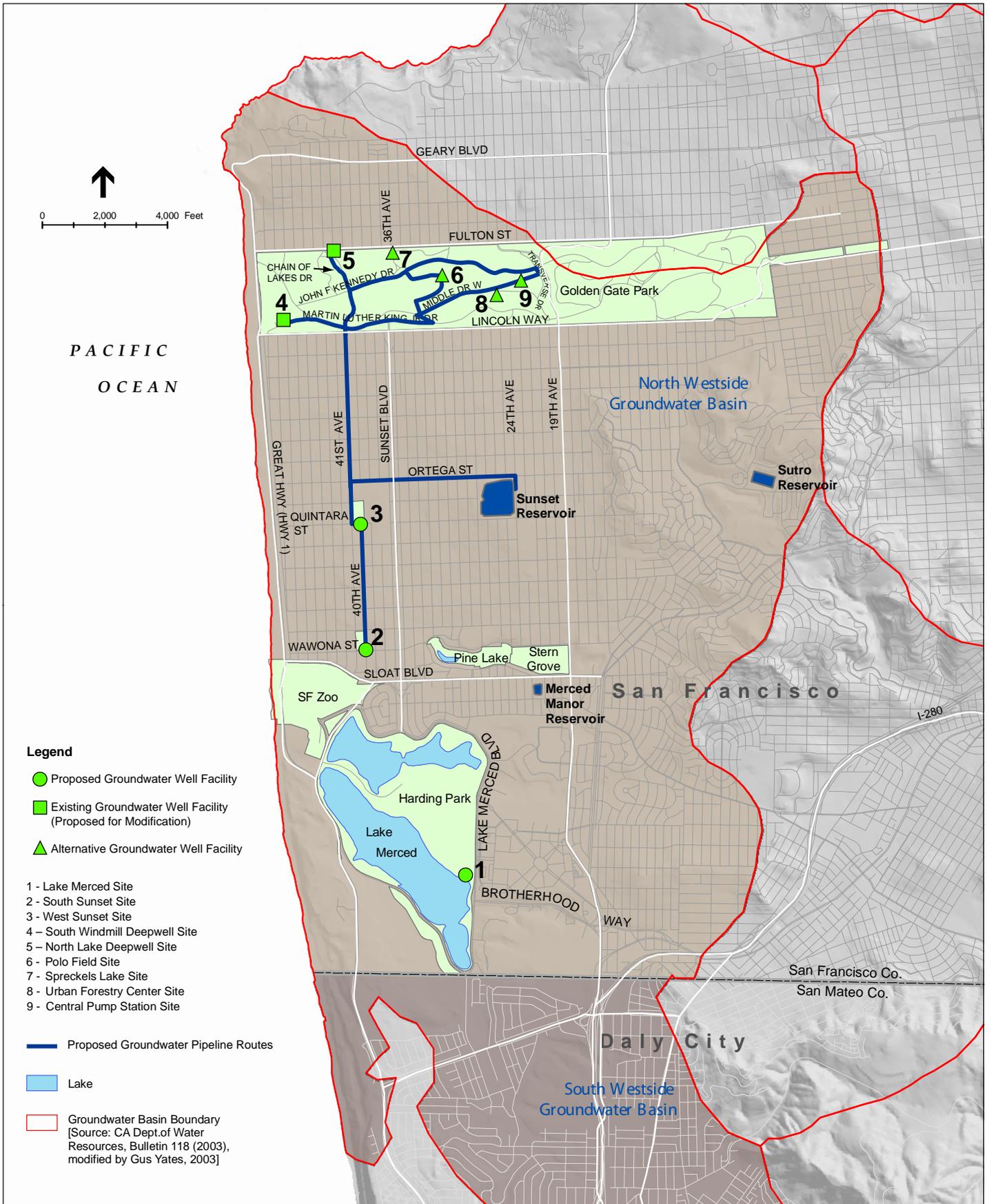
1.0 Overview

The San Francisco Public Utilities Commission (SFPUC) is proposing the San Francisco Groundwater Supply Project (project or proposed 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 proposed project. This Notice of Preparation (NOP) describes the proposed project and potential environmental effects, and announces the date of a scoping meeting for public comments.

The project would provide an average of four million gallons per day (mgd) of groundwater to San Francisco's municipal water supply. Groundwater would be blended with San Francisco's existing municipal water supply for distribution within San Francisco. The groundwater would be pumped from the North Westside Groundwater Basin, which is located within the larger Westside Groundwater Basin, which underlies parts of San Francisco and San Mateo Counties. Facilities required to implement the project, including groundwater production well facilities, would be located on the western side of the city of San Francisco (see **Figure 1**), on property owned by the City and County of San Francisco, and managed by the SFPUC or the San Francisco Recreation and Park Department (SFRPD).

As illustrated on Figure 1, nine locations are under consideration for the groundwater production well facilities; however, only six potable groundwater well facilities would be constructed—two that would be converted from existing irrigation well facilities and four new facilities. Each facility would include a groundwater production well and a pump station. The SFPUC also proposes the construction of a distribution system (including pipelines and connection points) that would connect five of the well facilities to Sunset Reservoir; the sixth well would connect to the existing Lake Merced Pump Station, and would require a short length of distribution piping to make this connection.

The project is a component of the SFPUC's Water System Improvement Program (WSIP), which includes facility improvement projects designed 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.



SOURCE: SFPUC, 2009

San Francisco Groundwater Supply Project

Figure 1
 Project Location

To address the potential environmental impacts of the WSIP, the San Francisco Planning Department prepared a Program EIR on the proposed WSIP, which was certified by the San Francisco Planning Commission on October 30, 2008 and the WSIP was approved by the SFPUC on that same day (San Francisco Planning Department, 2008 and SFPUC, 2008). Implementation of the project, as a component of the WSIP, would contribute to meeting the overall WSIP goals and objectives by diversifying water supply options during drought and nondrought periods and improving the use of new water sources and drought management.

2.0 Environmental Review Process

As described above, the San Francisco Planning Commission certified the WSIP Program EIR in October 2008. The Program EIR addressed the potential environmental impacts of the WSIP facilities on a programmatic level and evaluated regional water supply alternatives. The Program EIR is available on the San Francisco Planning Department website at: <http://mea.sfplanning.org>.

The Program EIR evaluated the environmental effects of the proposed project at a programmatic level of detail. The San Francisco Planning Department will now prepare a project-specific EIR to evaluate the environmental effects of the proposed project in detail. 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 is the formal public scoping process, for which this NOP has been prepared and will be circulated for a 30-day public review period. 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 response to comments, for certification as the Final EIR. Once the Final EIR is certified, the SFPUC will consider project approval.

3.0 Public Scoping Meeting

The San Francisco Planning Department will hold a scoping meeting following release of this NOP as follows:

Golden Gate Park Senior Center – San Francisco
Wednesday, January 20, 2010
7:00 PM (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 close of business (5:00 p.m.) on January 30, 2010. The comments received will assist the Planning Department with its review of the proposed scope and content of the EIR as summarized in this NOP.

Written comments may be mailed to the San Francisco Planning Department, Attn: Bill Wycko, Environmental Review Officer, San Francisco Groundwater Supply Project Scoping Comments, 1650 Mission Street, Suite 400, San Francisco, CA 94103; sent by fax to (415) 558-6409; or submitted by email to jamie.dean@sfgov.org.

4.0 Project Description

4.1 Project Goals and Objectives

The proposed project would provide an average of approximately four mgd of groundwater to San Francisco's municipal water supply from the North Westside Groundwater Basin, which would:

- Increase the use of local water supply sources;
- Reduce dependence on imported water; and
- Expand the SFPUC's water supply portfolio to increase system reliability.

In addition, the project would ensure the availability of potable groundwater for emergency supply in the event of an earthquake or other major catastrophe (SFPUC, 2009a).

4.2 Proposed Project

4.2.1 Summary of Proposed Project Components

The proposed project consists of the following components:

- Construction of six groundwater well facilities. This would involve the conversion of two existing irrigation well facilities to potable groundwater well facilities and the construction of four new groundwater well facilities. Each facility would include a groundwater production well and a pump station. Disinfection treatment would be included at the Lake Merced and West Sunset well facilities.
- Construction of a distribution system (including pipelines and connection points) to connect five of the groundwater well facilities to Sunset Reservoir. The sixth groundwater well would connect to the Lake Merced Pump Station, and would require a short length of distribution piping to make this connection.

The project would be implemented in two phases: (1) construction and operation of the four new groundwater well facilities to supply an annual average of approximately 2.5 mgd of groundwater, and construction of well facilities required to convert the two existing irrigation well facilities to

potable groundwater well facilities; and (2) operation of the converted irrigation wells to provide an additional annual average of approximately 1.5 mgd of groundwater.

Implementation of the proposed project is related to the SFPUC's proposed San Francisco Westside Recycled Water Project,¹ which consists of development of a new recycled water supply for non-potable irrigation uses at Golden Gate Park, Lincoln Park Golf Course, and other areas in San Francisco. The proposed San Francisco Westside Recycled Water Project would replace the existing use of two existing irrigation well facilities at Golden Gate Park with recycled water. Thus, Phase 2 of the proposed project could be implemented only if the proposed San Francisco Westside Recycled Water Project is approved and operational, as Phase 2 of the proposed project includes the use of those two well facilities for potable water. If the San Francisco Westside Recycled Water Project is not implemented and a backup source of irrigation water for Golden Gate Park (i.e., other than groundwater) is not made available, the existing irrigation wells in Golden Gate Park would not be used to supply municipal water as part of the San Francisco Groundwater Supply Project. Under this scenario, the proposed project would only include operation of four potable wells which may result in some reduction in the average annual groundwater production.

4.2.2 Proposed Project Component Locations

Proposed Groundwater Well Facility Locations

The project includes three new groundwater well facilities south of Golden Gate Park and, as described above, would convert two existing irrigation well facilities in Golden Gate Park to potable use. The project would also consider four alternative locations for one new groundwater well facility in Golden Gate Park. The proposed and alternative locations for groundwater well facilities are shown on **Figure 1** and described below.

Groundwater Well Facility Sites South of Golden Gate Park

Lake Merced Site. The existing Lake Merced Pump Station is on Lake Merced Boulevard next to Lake Merced and south of the Harding Park Golf Course. A new well facility would be developed approximately 300 feet southeast of the existing pump station in an undeveloped area of SFPUC-managed property. The SFPUC has an existing test well at this location. This area is restricted from public use and access.

South Sunset Site. The South Sunset well facility would be developed in the corner of the South Sunset Playground, at 40th Avenue and Wawona Street, next to a SFRPD-managed public recreational field used for softball, baseball, and soccer. Residences are located across the street along 40th Avenue and Wawona Street. The well facility would be constructed within a landscaped berm adjacent to the sports field. The SFPUC has an existing test well at this location.

¹ The San Francisco Westside Recycled Water Project is one of the projects proposed for implementation under the WSIP, approved by the SFPUC in October, 2008. The environmental review for the San Francisco Westside Recycled Water Project (San Francisco Planning Department Case Number 2008.0091E) is proceeding independently of this project. The NOP for preparation of an EIR for the San Francisco Westside Recycled Water Project is expected to be available for public review in the spring of 2010.

West Sunset Site. The West Sunset well facility would be developed at the West Sunset Playground, at the intersection of 40th Avenue and Quintara Street adjacent to a SFRPD-managed public recreational field used for softball, baseball and soccer. Residences are located across the street along Quintara Street. The proposed well facility would be within a portion of the playground parking lot. The SFPUC has an existing test well at this location.

Existing Well Facilities in Golden Gate Park Proposed for Conversion

South Windmill Deepwell Site. The South Windmill Deepwell facility was constructed in 2001 and is operated by the SFRPD. The facility is within the western area of Golden Gate Park north of Martin Luther King Jr. Drive. Under the proposed project, the SFPUC would remodel the existing building, replace the existing pump, and install new piping and valves. Upgrades to the existing electrical service could also be required.

North Lake Deepwell Site. The North Lake Deepwell facility was constructed in 2001 and is operated by the SFRPD. The facility is next to Chain of Lakes Drive within the western area of Golden Gate Park, south of Fulton Street. Under the proposed project, the SFPUC would remodel the existing building, replace the existing pump, and install new piping and valves. Upgrades to the existing electrical service could also be required.

Alternative Sites in Golden Gate Park for New Groundwater Well Facility

Polo Field. The Polo Field site is south of John F. Kennedy Drive and Lindley Meadow and north of the Golden Gate Park Stadium and Polo Fields, near a horse corral and portable storage container.

Spreckels Lake. The Spreckels Lake site is north of the Model Yacht Club building and west of 36th Avenue and Spreckels Lake.

Urban Forestry Center. The Urban Forestry Center site is to the south of Middle West Drive, adjacent to and west of the Urban Forestry Center. The SFRPD uses the Urban Forestry Center buildings and yard areas for park operations and maintenance activities.

Central Pump Station. The Central Pump Station is part of the park's existing irrigation system, and is located southeast of the John F. Kennedy Drive/Transverse Drive intersection. The proposed well site is to the west of the existing fenced Central Pump Station facility. The yard area at the Central Pump Station is used for the SFRPD's wood waste storage and composting operations.

Pipeline Locations

As shown in **Figure 1**, the proposed groundwater transmission pipelines for five of the well facilities would connect groundwater well facilities with the Sunset Reservoir. The groundwater transmission pipelines would be 8 to 16 inches in diameter.

Groundwater drawn from the Lake Merced well facility would be transferred to the Lake Merced Pump Station via a short connector pipeline, and then conveyed to either the Sunset Reservoir or the Sutro Reservoir through the Lake Merced Pump Station's existing pumping and distribution system.

The SFPUC would install a pipeline along 40th Avenue between Wawona and Quintara Streets to connect the South Sunset and West Sunset well facilities. The pipeline would extend west along Quintara Street and northward two blocks along 41st Avenue, and then continue approximately one mile eastward along Ortega Street to 24th Avenue. The pipeline would continue southward along 24th Avenue for approximately one block, where it would enter the Sunset Reservoir facility. The pipeline would branch and terminate in the north and south basins of Sunset Reservoir where groundwater would be blended with the water in storage and then distributed to local customers.

Within Golden Gate Park, potable water wells would be connected to a single pipeline that would exit the park at Lincoln Way and 41st Avenue (see **Figure 1**). The pipeline would continue south approximately one mile along 41st Avenue and then east one block at Quintara Street to connect to the pipeline alignment at the West Sunset well facility.

4.2.3 Project Construction

Well Facility Construction

Modification of the existing South Windmill Deepwell and North Lake Deepwell facilities could require demolition of some existing facilities to accommodate the upgraded pumping equipment and new pipeline connections. In addition, construction of a well facility at the Polo Fields site would require removal of a horse corral and metal storage container. Tree removal could be required within the construction and staging areas at several of the proposed facilities.

The conversion of existing test wells and irrigation wells would be required to meet municipal well construction standards and include the installation of pumps, valves, and electrical utility connections. Pumps and pump motors would be either vertical turbine or submersible. Well facility buildings would include noise-limiting, 8- to 10-inch-thick concrete walls, 8-inch-thick concrete roofs, and small windows with acoustical louvers.

Pipeline Construction

Pipeline construction would require trench corridors that would generally be 10 feet wide for single pipeline routes, and 16 feet wide along the few segments where two pipelines would run along the same route (e.g., sections of 41st Avenue, near the West Sunset well facility). A 16-foot trench corridor would also be required for the Golden Gate Park well facilities that require new electrical utility connections along the proposed pipeline route (e.g., Polo Field and Spreckels Lake). Site preparation for pipeline construction could include tree removal or ground clearing of the work area, as well as grading or pavement cutting.

Figure 1 shows the locations of pipeline infrastructure and connection points with the Lake Merced Pump Station and the Sunset Reservoir. The pipeline alignment would be located

primarily within existing roadways; after pipeline construction activities were completed, roadways would be restored to pre-construction conditions. In general, the pipeline routes would be excavated to a depth of six feet, except where the pipeline enters/exits individual well facilities. At these locations, the pipeline excavation would be at the same depth as the well facility connection.

The open-cut trench method would primarily be used for the pipeline construction. This method involves excavation of the trench, placement of the pipe, backfilling of the trench, and restoration of the work surface. Typically, excavation of an approximately 4-foot-wide by 6-foot-deep trench would be required to install the pipeline. In accordance with Occupational Safety and Health Administration standards, shoring would be required for trenches over 5 feet deep to prevent the surrounding soil and adjacent structures from collapsing. Dewatering of the trench would be required if groundwater were encountered.

The pipeline route would cross the Taraval MUNI light rail line at its intersection with 40th Avenue and the Judah MUNI light rail line at its intersection with 41st Avenue. Jack and bore pipeline (pipe-jacking) construction would be used to tunnel under the light rail lines without disturbing these rail lines.

Spoils Disposal and Dewatering

Excavated soil would be stockpiled at the construction staging area for reuse at the well facility or pipeline construction site, or would be disposed of at an appropriate landfill. Most of the spoils material is expected to be Class III non-hazardous waste.

Dewatering could be required, and would involve pumping water out of the excavated area and, following appropriate onsite treatment, discharging into a nearby sewer, open channel, or over land. Dewatering must be performed in accordance with the requirements of the Statewide General Construction Permit for Stormwater Discharges Associated with Construction Activity issued by the State Water Resources Control Board, and municipal stormwater permits.

Construction Staging

Except for the Lake Merced site, all of the proposed groundwater well facilities would be located on SFRPD-managed properties. The SFPUC would coordinate with the SFRPD for final site selection and determination of construction/staging areas. Pipeline construction would occur within CCSF roadways, with some pipeline segments between well facilities and paved roadways over land or within existing trails in Golden Gate Park. All temporary construction easements, where applicable, would be obtained before the start of construction.

Each well facility and pipeline construction site would require a staging area for equipment and materials storage (e.g., construction vehicles, building materials, pipes, fuels, lubricants). Staging areas could also be used for stockpiling excavated soil for reuse. Whenever possible, the project staging areas would be located on developed or previously disturbed areas, rights-of-way, or roadsides.

Staging areas would be used for up to 16 months during well facility construction. Pipeline staging would be located sequentially near the pipeline route, and each staging area would operate for a seven-week period during pipeline construction. Once a staging area is no longer needed, the area would be restored to its pre-construction condition. Unpaved roadways would be restored to pre-project conditions, and roadway pavement would be restored in accordance with local design specifications.

4.2.4 Construction Schedule

Table 1 provides the approximate duration of construction work necessary at each well facility and the installation rate for the proposed pipeline system. The construction of new groundwater well facilities would require approximately 16 months at each site. Construction activities would occur primarily Monday through Friday during daytime hours (7:00 a.m. to 5:00 p.m.). At some sites, construction might be necessary during weekend and evening hours to meet construction requirements. If nighttime work were required, work could be performed between 5:00 p.m. and 7:00 a.m.

**TABLE 1
CONSTRUCTION DURATION BY ACTIVITY TYPE**

Construction Activity	Expected Duration
Well Facility	
Site Clearing, Grubbing, and Preparation	1 month
Foundation and Utility Connections	3 months
Building Construction and Equipment Installation	10 months
Start-up and Testing	2 months
Total Well Facility Construction Duration	16 months
Pipeline Installation (at a rate of 500 to 600 feet per week)	14 to 18 months

Construction of pipelines would occur at the same time as well facility construction. In general, pipeline installation would progress at a net rate of approximately 100 feet per day for in-street areas and up to 120 feet per day in off-street areas. However, construction activities might not be continuous. For example, pipeline installation could begin several days after completion of excavation, and temporary paving could occur up to several days after completion of backfilling. Final paving of in-street areas would take place after the above activities and would progress at a rate of approximately 300 feet per day.

At two locations, beneath the Taraval and Judah MUNI light rail lines, pipe-jacking (jack and bore) pipeline construction would be necessary, and the duration of this activity would be approximately three weeks.

4.4 Operations and Maintenance

4.4.1 Operations

Normal daily extraction rates from each of the six wells would be 0.6 to 0.7 mgd, for a total average of 4 mgd, and would be blended with San Francisco's municipal water supply. However, due to water quality requirements that dictate a ceiling for blending groundwater in the San Francisco municipal water system, as well as seasonal variations in water demand, production from the proposed wells could vary on a daily basis. During low-demand periods, such as winter months when surface water supplies are more abundant and water use is lower, groundwater extraction would generally be less than 4 mgd. During high-demand periods, the production rate could be greater than 4 mgd, but the total production rate would be equal to 4 mgd averaged over a year. During project operation, the SFPUC would monitor groundwater levels and groundwater quality in the Westside Groundwater Basin monitoring network. The groundwater monitoring results would be used to detect potential adverse effects of seawater intrusion, changes in water levels in surface water features (such as Lake Merced and Pine Lake, which is located to the east of the project area), land subsidence, and interference with other wells. Groundwater pumping would be balanced between the six groundwater production wells to avoid such effects.

In addition to normal operations, the project would provide an available source of drinking water in the event that other imported water sources are interrupted due to earthquake damage or other emergency situations. Each well would be capable of producing up to 1 mgd (each) during a catastrophic emergency and could operate at this rate for up to 30 days, consistent with level-of-service goals established by the SFPUC (2009b). Portable generators would provide backup power to enable use of the proposed wells during a catastrophic emergency.

4.4.2 Maintenance

During project operation, an operator would make daily visits by truck (of approximately 30-minute duration) to check the equipment at each of the groundwater well facility sites. Standard Supervisory Control and Data Acquisition (SCADA) equipment would be installed at each site for remote monitoring of the well facility and pipeline equipment. Longer-term maintenance would include removal and repair (or replacement) of pumps, valves, and other equipment. The production wells might require rehabilitation on an infrequent basis. The estimated operational life of the proposed production wells is 50 years (or more).

5.0 Permits and Approvals Required

The SFPUC may be required to obtain the following permits and approvals for project construction and operation.

5.1 Federal

Based upon the current understanding of project activities and environmental conditions, no federal permits or approvals are expected to be required for implementation of the project. This

determination is contingent on the completion of EIR project description and site surveys to be conducted for analysis of impacts of the proposed project.

5.2 State

- California Department of Public Health, Water Supply Division permit amendments and approval of well construction and operation.
- California Department of Toxic Substances Control Contaminated Soil Treatment Work Plan (required only if contaminated soil were encountered during construction).
- State Water Resources Control Board Stormwater General Permit and Stormwater Pollution Prevention Plan, if more than 1 acre of land were disturbed.

5.3 Local

- San Francisco Planning Commission certification of the Final EIR.
- San Francisco Planning Commission Coastal Development Permit.
- SFPUC consideration of project approval following certification of the Final EIR, adoption of CEQA findings, and mitigation monitoring and reporting program.
- San Francisco Board of Supervisors consideration of any appeals of the Planning Commission's certification of the Final EIR. The San Francisco Board of Supervisors would also appropriate funding (general obligation bond monies, annual budget appropriations) to implement the project.
- Advisory Council on Historic Preservation review, if the project were to affect properties listed or eligible for listing on the National Register of Historic Places.
- San Francisco Historic Preservation Commission review of local, state, and national landmarks and historical landscapes.
- SFRPD determination of project consistency and approval of property use.
- San Francisco Arts Commission approval of exterior design of proposed facilities.
- San Francisco Department of Public Health approval of well construction and operation permits in accordance with California Department of Water Resources standards.
- San Francisco Department of Public Health approval of Certified Unified Program Agencies/Hazardous Materials Business Plan for project operations.
- San Francisco Department of Public Works approval of excavation permits, encroachment permits, and temporary occupancy permits for street space.
- San Francisco Municipal Railway encroachment permits.

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 the environmental impacts of the proposed project due to construction and operation activities, and will propose mitigation measures for impacts considered to be potentially significant. The following paragraphs describe the key environmental issues that will be addressed in the EIR.

6.1.1 Land Use and Land Use Planning

Project construction and operation could affect land uses at the project sites and surrounding areas. Potential impacts to be evaluated include:

- Temporary and permanent disruption or displacement of existing land uses during construction—including construction impacts on sensitive land uses such as schools and residences, and potential temporary closures of some portions of Golden Gate Park, South Sunset Playground, and West Sunset Playground.

6.1.2 Aesthetics

Project construction and operation could affect aesthetics at the project sites and surrounding areas. Potential impacts to be evaluated include:

- Impacts on scenic vistas or visual character, including potential impacts on the visual character of Golden Gate Park, Lake Merced, South Sunset Playground, and West Sunset Playground.

6.1.3 Cultural Resources

The project could potentially affect archaeological, historical, or paleontological resources through ground-disturbing activities during construction, or by introducing new facilities that could compromise the historical integrity of historical buildings or landscapes. Potential impacts to be evaluated include:

- Impacts on archaeological and paleontological resources.
- Impacts on the historical significance of a historic district, contributor to a historic district, or historic landscape. Of particular focus will be the proposed well facilities in Golden Gate Park.

6.1.4 Traffic, Transportation, and Circulation

Construction could have temporary impacts on traffic volumes, traffic safety, and parking in the vicinity of the groundwater pipelines, well facility sites, and the Sunset Reservoir. Potential impacts to be evaluated include:

- Temporary reduction in roadway capacity and increase in traffic delays, including impacts from short-term closure of one parking and/or traffic lane.
- Temporary displacement of on- or off-street parking.

6.1.5 Noise and Vibration

Project construction noise and vibration impacts associated with facility construction would be temporary and short term. However, operation of the proposed pumps, building ventilation fans, and chemical treatment equipment could create permanent noise impacts. Potential impacts to be evaluated include:

- Impacts of construction noise and vibration on sensitive receptors in the vicinity of project construction sites, especially sensitive land uses such as schools and residences.
- Operational noise impacts from groundwater well facilities, including pumps, building ventilation fans, and groundwater treatment equipment.

6.1.6 Air Quality

Effects on air quality from the project would largely be associated with construction activities and, as such, would be temporary and short term. Potential impacts to be evaluated include:

- Impacts of construction emissions, including dust and greenhouse gases.
- Consistency with regional air quality plans.
- Consistency with state laws regarding greenhouse gases.

6.1.7 Recreation

Project construction could temporarily disrupt recreational uses in the vicinity of the well facility sites as a result of noise, dust, and temporary access restrictions. The EIR will evaluate project impacts on recreational resources. Potential impacts to be evaluated include:

- Temporary and permanent impacts on recreational facilities, including but not limited to closure of some portions of the South Sunset Playground, West Sunset Playground, and Golden Gate Park.

6.1.8 Biological Resources

Temporary impacts on biological resources could result from construction activities related to noise, vibration and dust. Potential impacts to be evaluated include:

- Impacts on sensitive wildlife habitats (including wetlands), migration corridors, and protected/heritage trees.
- Impacts on special-status wildlife and plant species (direct mortality and/or habitat effects).

6.1.9 Geology, Soils, and Seismicity

Construction and operation of new well facilities and below-ground distribution pipelines could result in site-specific impacts on or from local geology and soils conditions. Potential impacts to be evaluated include:

- Seismic hazards and/or increased exposure of structures to seismic hazards, including impacts from ground-shaking in the event of an earthquake on the San Andreas fault or other Bay Area faults.
- Increased exposure of structures to geologic hazards (such as liquefaction, poor soil conditions, or unstable slopes) from construction in geologic hazard zones.
- Soil erosion potential from construction activities.
- Potential for land subsidence from decreases in groundwater level elevations (drawdown) in the groundwater aquifer.

6.1.10 Hydrology and Water Quality

Project construction could affect surface and groundwater water quality in the project area. Project operation could affect groundwater levels and quality in the project area and in the Westside Groundwater Basin. Potential impacts to be evaluated include:

- Changes in local groundwater quality and levels within the project area and the Westside Groundwater Basin.
- Depletion of groundwater supplies or interference with groundwater recharge such that production rates of preexisting wells in the Westside Groundwater Basin would drop to a level that would not support existing or planned land uses, seawater intrusion would occur, or land subsidence would result.
- Changes in surface water bodies or other surface water features, such as Lake Merced, due to changes in groundwater levels in the Westside Groundwater Basin.
- Changes in drinking water quality due to blending of treated groundwater with the imported treated surface water supply.
- Alteration of drainage patterns and increase in stormwater flows due to increase in the amount of impervious surfaces.
- Degradation of surface and groundwater water quality as a result of erosion and sedimentation, hazardous materials release during construction, and construction dewatering discharges.

6.1.11 Other Environmental Issues

Other environmental issues that will be evaluated in the EIR include the project's potential impacts on population and housing; wind and shadow; utilities and service systems; public services, including the project's beneficial effect on water supply; hazards, including the potential

hazards from chemical storage at the well sites; mineral and energy resources; and agricultural resources.

The EIR will evaluate any potential growth-inducing 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. Alternatives suggested during the public scoping period will also be considered. The EIR will also discuss impacts associated with the No Project Alternative.

7.0 References

San Francisco Planning Department, *Program Environmental Impact Report on the San Francisco Public Utilities Commission's Water System Improvement Program*, October 2008.

San Francisco Public Utilities Commission (SFPUC), *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 (Attachment A to SFPUC Resolution No. 08-0200, adopted October 30, 2008).

San Francisco Public Utilities Commission (SFPUC), *CUW 30102 – North Westside Basin Local Supply (Groundwater Project B), CER Checklist for Environmental Review (Project Description Requirements)*, March 25, 2009a.

San Francisco Public Utilities Commission (SFPUC), *Operation Plans for Environmental Review Purposes – WSIP Groundwater Projects*, June 30, 2009b.