SAN FRANCISCO
PLANNING DEPARTMENT

Memo to the Planning Commission

HEARING DATE: DECEMBER 19, 2013

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San Francisco,
CA 94103-2479

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Date:	December 12, 2013
Case No.:	**2008.1122E**—CEQA Findings **2008.1122P**—Coastal Zone Permit **2008.1122R**—General Plan Referral
Project Name:	**San Francisco Groundwater Supply Project**
Zoning:	P (Public) Zoning District OS (Open Space) Height and Bulk District
Block/Lot:	7283/004 and 1700/001
Project Sponsor:	San Francisco Public Utilities Commission c/o Jeff Gilman 525 Golden Gate Avenue, 10th floor San Francisco, CA 94102
Staff Contact:	Michael Smith – (415) 558-6322 michael.e.smith@sfgov.org
Recommendations:	**Adopt California Environmental Quality Act (CEQA) Findings** **Approve Coastal Zone Permit** **Approve General Plan Referral**

PROPOSED PROJECT

The San Francisco Public Utilities Commission ("SFPUC") proposes the San Francisco Groundwater Supply Project. The proposed project would provide an average of up to 4 million gallons per day of groundwater to augment San Francisco's municipal water supply. The proposed project would construct six groundwater production well facilities and associated pipelines, including: the construction of four new groundwater well facilities; and the conversion of two existing irrigation well facilities in Golden Gate Park to potable groundwater well facilities. All of 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 the City. All project components would be located on the west side of San Francisco on land owned by the City and County of San Francisco.

REQUIRED COMMISSION ACTION*

In order for the project to proceed, the Commission must approve the following:

- Certification the Final Environmental Impact Report (EIR) – Case No. 2008.1122E
- Adoption of CEQA Findings – Case No. 2008.1122E
- Coastal Zone Permit – Case No. 2008.1122P
- General Plan Referral – Case No. 2008.1122R

RECOMMENDATIONS:	**Adopt CEQA Findings** **Approve Coastal Zone Permit** **Approve General Plan Referral**

Attachments:

Draft CEQA Findings Motion
Draft Coastal Zone Motion
Mitigation Monitoring and Reporting Program (MMRP)
Draft General Plan Referral Motion
Coastal Zone Maps
SFPUC Submittal
- Coastal Zone Maps
- Project Location Maps
- Aerial Maps
- Plans and Renderings

*Final EIR draft motions to be provided under separate cover.

SAN FRANCISCO
PLANNING DEPARTMENT

Planning Commission Draft Motion

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) FINDINGS

HEARING DATE: DECEMBER 19, 2013

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ADOPTING FINDINGS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, INCLUDING FINDINGS REJECTING ALTERNATIVES AS INFEASIBLE, ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS, AND ADOPTING A MITIGATION, MONITORING, AND REPORTING PROGRAM, RELATING TO THE SAN FRANCISCO PUBLIC UTILITY'S PROPOSED PROJECT TO CONSTRUCT AND OPERATE ON THE WEST SIDE OF SAN FRANCISCO A GROUNDWATER PROJECT TO SUPPLY UP TO 4 MILLION GALLONS PER DAY OF GROUNDWATER FROM THE WESTSIDE GROUNDWATER BASIN FOR SAN FRANCISCO'S MUNICIPAL WATER SYSTEM

PREAMBLE

On August 3, 2008, the San Francisco Public Utilities Commission ("SFPUC") submitted an Environmental Evaluation Application to the Planning Department ("Department"), Case No. 2008.1122E, in connection with a project to provide an average of up to 4 million gallons per day ("mgd") of groundwater from the Westside Groundwater Basin to augment San Francisco's municipal water supply. The project, consisting of six groundwater wells, a pipeline distribution system, and a pH adjustment facility and chlorine analyzer, is located on the west side of the City on land owned by the City ("Project").

On December 30, 2009, the Department issued a Notice of Preparation of an Environmental Impact Report ("NOP") for the Project, and, in response to comments received, revised the location of certain project elements and published a revised NOP on March 2, 2011.

On March 13, 2013, the Department published the Draft Environmental Impact Report ("DEIR" or "Draft EIR") for the Project and provided public notice in a newspaper of general circulation of the availability of the DEIR for public review and comment. The DEIR was available for public comment until April 27, 2013.

The San Francisco Planning Commission ("Planning Commission" or "Commission") held a public hearing on the DEIR on April 18, 2013, at a regularly scheduled meeting to solicit public comment regarding the DEIR.

The Department prepared responses to comments on environmental issues received at the public hearing and in writing during the public review period for the DEIR, and prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available during the public review period. This material was presented in a Draft Comments and Responses ("C & R") document, published on October 30, 2013, and distributed to the Planning Commission and all parties who commented on the DEIR, and made available to others upon request at the Department.

A Final Environmental Impact Report ("FEIR") or "Final EIR") was prepared by the Department, consisting of the Draft EIR and the C & R document.

Project Environmental Impact Report files have been made available for review by this Commission and the public. These files are available for public review at the Department at 1650 Mission Street, and are part of the record before this Commission.

On December 19, 2013, the Commission reviewed and considered the Final EIR and found that the contents of the report and the procedures through which the Final EIR was prepared, publicized, and reviewed complied with the California Environmental Quality Act (California Public Resources Code section 21000 *et seq*.) ("CEQA"), 14 California Code of Regulations section 15000 *et seq.* ("CEQA Guidelines"), and Chapter 31 of the San Francisco Administrative Code ("Chapter 31").

The Planning Commission found the Final EIR was adequate, accurate and objective, reflected the independent analysis and judgment of the Department and the Planning Commission, and that the summary of comments and responses contained no significant revisions to the Draft EIR, and approved the Final EIR for the Project in compliance with CEQA, the CEQA Guidelines and Chapter 31.

The Planning Department, Jonas P. Ionin, is the custodian of records for the Planning Department materials, located in the File for Case No. 2008.1122E, at 1650 Mission Street, Fourth Floor, San Francisco, California.

Department staff prepared a Mitigation Monitoring and Reporting Program ("MMRP") for the Project and these materials were made available to the public and this Commission for this Commission's review, consideration and action.

On December 19, 2013, the Planning Commission conducted a duly noticed public hearing at a regularly scheduled meeting on Case No. 2008.1122E to consider the approval of the Project. The Commission has heard and considered the testimony presented to it at the public hearing and has further considered

written materials and oral testimony presented on behalf of the SFPUC, the Planning Department staff, and other interested parties.

MOVED, that the Planning Commission hereby adopts findings under the California Environmental Quality Act, including rejecting alternatives as infeasible and adopting a Statement of Overriding Considerations, and adopts the MMRP attached as Exhibit A based on the following findings:

FINDINGS

Having reviewed the materials identified in the Preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

In determining to approve the San Francisco Groundwater Supply Project ("SFGW Project" or "Project") described in Section I, Project Description, below, the Planning Commission makes and adopts the following findings of fact and decisions regarding mitigation measures and alternatives, and adopts the statement of overriding considerations, based on substantial evidence in the whole record of this proceeding and under the California Environmental Quality Act ("CEQA"), California Public Resources Code Sections 21000 et seq., particularly Sections 21081 and 21081.5, the Guidelines for Implementation of CEQA ("CEQA Guidelines"), 14 California Code of Regulations Sections 15000 et seq., particularly Sections 15091 through 15093, and Chapter 31 of the San Francisco Administrative Code.

This document is organized as follows:

Section I provides a description of the Project proposed for adoption, the environmental review process for the Project (San Francisco Groundwater Supply Project Environmental Impact Report, Planning Department Case No., 2008.1122E, State Clearinghouse No. 2009122075 (the "Final EIR" or "EIR"), the approval actions to be taken and the location of records;

Section II identifies the impacts found not to be significant that do not require mitigation;

Section III identifies potentially significant impacts that can be avoided or reduced to less-than-significant levels through mitigation and describes the disposition of the mitigation measures;

Section IV identifies significant impacts that cannot be avoided or reduced to less-than-significant levels and describes any applicable mitigation measures as well as the disposition of the mitigation measures;

Section V evaluates the different Project alternatives and the economic, legal, social, technological and other considerations that support approval of the project and the rejection of alternatives, or elements thereof, analyzed; and

Section VI presents a statement of overriding considerations setting forth specific reasons in support of the Commission's actions and rejection of the alternatives not incorporated into the Project.

The **Mitigation Monitoring and Reporting Program ("MMRP")** for the mitigation measures that have been proposed for adoption is attached with these findings as **Exhibit A**. The MMRP is required by

CEQA Section 21081.6 and CEQA Guidelines Section 15091. **Exhibit A** provides a table setting forth each mitigation measure listed in the Final Environmental Impact Report for the Project ("Final EIR") that is required to reduce or avoid a significant adverse impact. **Exhibit A** also specifies the agency responsible for implementation of each measure and establishes monitoring actions and a monitoring schedule. The full text of the mitigation measures is set forth in **Exhibit A**.

These findings are based upon substantial evidence in the entire record before the Commission. The references set forth in these findings to certain pages or sections of the Draft Environmental Impact Report ("Draft EIR" or "DEIR") or the Comments and Responses document ("C&R") in the Final EIR are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these findings.

a. Project Description

The Project for which the Commission is approving and adopting these CEQA Findings includes the following:

- Construction of six groundwater production well facilities, including the construction of three new groundwater well facilities south of Golden Gate Park and one new facility in Golden Gate Park as part of Phase 1 of the Project, and, as part of Phase 2 of the Project, the conversion of two existing irrigation well facilities in Golden Gate Park to potable groundwater well facilities, if the SFPUC's Westside Recycled Water Project is also approved and constructed. Each of these facilities would include a groundwater well and a pump station. Disinfection equipment would be included at two of the groundwater well facilities, and pH adjustment equipment would be installed at one well facility.

- Construction of a distribution system (including pipeline and connection points) to connect five of the groundwater well facilities to the SFPUC's existing Sunset Reservoir. The sixth well would connect to the SFPUC's Lake Merced Pump Station (which pumps water to both Sutro and Sunset Reservoirs) and would require a short length of new distribution piping.

- Construction of a pH adjustment facility at Sunset Reservoir within an addition to the existing reservoir building and a chlorine analyzer/sample station at the reservoir.

The Project is proposed to be implemented in two phases: (1) construction and operation of the four new well facilities to supply an annual average of approximately 2.5 to 3.0 mgd of groundwater; and (2) conversion of the two existing irrigation well facilities and operation of the converted irrigation wells to provide an additional annual average of approximately 1.0 to 1.5 mgd of groundwater. Phase 1 includes conversion of previously installed test wells to groundwater supply wells. These test wells are located at the proposed well sites south of Golden Gate Park and in Golden Gate Park at the proposed Central Pump Station well site. The SFPUC also would construct pipelines necessary to deliver groundwater from the Phase 1 well facilities to the existing municipal water supply system at Sunset Reservoir or the Lake Merced Pump Station.

Phase 2 of the Project would be implemented only if the SFPUC approves and constructs the San Francisco Westside Recycled Water Project, which is currently undergoing separate environmental

review. The San Francisco Westside Recycled Water Project proposes to provide recycled water to Golden Gate Park and nearby golf courses. If this Project is approved and constructed, SFPUC would convert two existing groundwater well facilities in Golden Gate Park that now supply groundwater for park irrigation and lake fill to municipal water supply. Phase 2 includes extension of groundwater supply pipelines to the well facilities in Golden Gate Park. The existing irrigation piping system would be retained to serve as a backup irrigation supply for Golden Gate Park.

b. Project Objectives

The three main objectives of the SFGW Project are:

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

In addition, the Project is part of the SFPUC's adopted Water System Improvement Program ("WSIP") adopted by the SFPUC on October 30, 2008 (see Section I.c). The WSIP consists of over 70 local and regional facility improvement projects that would increase the ability of the SFPUC's water supply system to withstand major seismic events and prolonged droughts and to meet estimated water-purchase requests in the service areas. With the exception of the water supply goal, the overall WSIP goals and objectives are based on a planning horizon through 2030. The water supply goal to meet delivery needs in the SFPUC service area is based on a planning horizon through 2018. The overall goals of the WSIP for the regional water system are to:

- Maintain high-quality water.
- Reduce vulnerability to earthquakes.
- Increase water delivery reliability.
- Meet customer water supply needs.
- Enhance sustainability.
- Achieve a cost-effective, fully operational system.

The Project would help meet WSIP goals by increasing water delivery reliability and helping to meet customer water supply needs. In addition, the Project would provide potable groundwater for emergency supply in the event that an earthquake or other major catastrophe interrupts the delivery of imported surface water supplies from Hetch Hetchy Reservoir and the local watersheds.

c. Environmental Review

On October 30, 2008, the SFPUC approved the Water System Improvement Program (also known as the "Phased WSIP") with the objective of repairing, replacing, and seismically upgrading the system's aging pipelines, tunnels, reservoirs, pump stations, and storage tanks (SFPUC, 2008; SFPUC Resolution No. 08-0200). The WSIP improvements span seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco (see SFPUC Resolution No. 08-0200).

To address the potential environmental effects of the WSIP, the Planning Department prepared a Program EIR ("PEIR"), which was certified by the Planning Commission on October 30, 2008 (Motion No. 17734). At a project-level of detail, the PEIR evaluated the environmental impacts of the WSIP's water supply strategy and, at a program level of detail, it evaluated the environmental impacts of the WSIP's facility improvement projects. The PEIR contemplated that additional project-level environmental review would be conducted for the facility improvement projects, including the San Francisco Groundwater Supply Project.

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the Planning Department prepared a NOP and conducted a scoping meeting for the SFGW Project EIR. The San Francisco Planning Department released the NOP on December 30, 2009, and held a public scoping meeting on January 20, 2010, at Golden Gate Senior Center in San Francisco.

The NOP was distributed to the State Clearinghouse, and notices of the availability of the NOP were mailed to approximately 3,700 contacts for local, State, and federal agencies, as well as regional and local interest groups, and property owners and tenants within 300 feet of the proposed Project. The scoping meeting was noticed in the legal classified section of the San Francisco Chronicle. Approximately 30 people attended the meeting.

The Planning Department received six verbal comments on the scope of the EIR at the scoping meeting and 13 organizations and individual submitted written comments. The comment inventory is included in the Scoping Report in Appendix A-1 of the EIR. Subsequent to publishing the NOP, the SFPUC revised the Project to move certain pipeline alignments, eliminate some alternative well facility locations, and clarify certain project elements. The Planning Department published a revised NOP on March 2, 2011, which it distributed to the recipients of the initial NOP and additional recipients in the vicinity of a revised pipeline alignment, posted the revised NOP on the Planning Department website, and noticed it in the San Francisco Chronicle. Seven organizations and individuals submitted written comments in response to the revised NOP during the scoping period, which ended on April 1, 2011. (Appendix A-2 of the EIR.)

The Planning Department then prepared the Draft EIR, which described the Project and the environmental setting, identified potential impacts, presented mitigation measures for impacts found to be significant or potentially significant, and evaluated Project alternatives. The Draft EIR analyzed the impacts associated with each of the key components of the Project, and identified mitigation measures applicable to reduce impacts found to be significant or potentially significant for each key component. It also included an analysis of four alternatives to the Project. In assessing construction and operational impacts of the Project, the EIR considered the impacts of the Project as well as the cumulative impacts associated with the proposed Project in combination with other past, present, and future actions that could affect the same resources.

Each environmental issue presented in the Draft EIR was analyzed with respect to significance criteria that are based on Planning Department guidance regarding the environmental effects to be considered significant. This guidance is, in turn, based on CEQA Guidelines Appendix G, with some modifications.

A Notice of Completion of the DEIR was filed with the State Secretary of Resources via the State Clearinghouse on March 13, 2013.

Notices of Availability of the DEIR and of the date and time of the public hearing were posted near the Project site by the Department on March 13, 2013. The Notice of Availability was also made available at public libraries on San Francisco.

The Draft EIR was circulated to local, state, and federal agencies and to interested organizations and individuals for review and comment on March 13, 2013 for a 45-day public review period, which closed at 5:00 p.m. on April 27, 2013. A public hearing on the Draft EIR to accept written or oral comments was held at the San Francisco Planning Commission meeting at San Francisco City Hall on April 18, 2013. During the public review period, the Department received written comments sent through the mail, fax, or email. A court reporter was present at the public hearing, transcribed the public hearing verbatim, and prepared a written transcript.

The Department then prepared the C&R document, which provided written responses to each comment received on the Draft EIR. The C&R document was published on October 30, 2013 and included copies of all of the comments received on the Draft EIR and individual responses to those comments. The C&R provided additional, updated information and clarification on issues raised by commenters, as well as SFPUC and Planning Department staff-initiated text changes to address project updates. The Final EIR, which includes the Draft EIR and the C&R document, and all of the supporting information, provided augmented and updated information on many issues presented in the Draft EIR, including (but not limited to) the following topics: project description, land use, aesthetics, cultural and paleontological resources, transportation and circulation, noise, air quality, recreation, utilities and service systems, biological resources, hydrology and water quality, and Project alternatives. This augmentation and update of information in the Draft EIR did not constitute new information or significance that altered any of the conclusions of the EIR.

On December 19, 2013, the Planning Commission reviewed and considered the Final EIR, certified said Final EIR as complete, and found that the contents of said Final EIR and the procedures through which the Final EIR was prepared, publicized, and review3ed complied with the provisions of CEQA, the CEQA Guidelines, and Chapter 31.

The Planning Commission determined that none of the factors are present that would necessitate recirculation of the Final EIR under CEQA Guidelines Section 15088.5. The Final EIR contains no information revealing (1) any new significant environmental impact that would result from the Project or from a new mitigation measure proposed to be implemented, (2) any substantial increase in the severity of a previously identified environmental impact, (3) any feasible Project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the Project, but that was rejected by the Project's proponents, or (4) that the Draft EIR was so

fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The Commission finds that the Project proposed for approval is within the scope of the project fully analyzed in the Final EIR. No new impacts have been identified that were not analyzed in the Final EIR.

d. Approval Actions

- Certifies the Final EIR.
- Determines consistency with the General Plan .
- Issues a Coastal Development Permit.

- Approves the project and authorizes the General Manager or his designee to obtain necessary permits, consents, agreements and approvals, including entering into an agreement with the San Francisco Recreation and Parks Commission ("SFRPD") for construction in and use of SFRPD-managed land for groundwater well facilities and pipelines.

- Approves an agreement with SFPUC for construction, operation and maintenance of well facility structures and pipelines on park lands.

- Considers any appeal of the Planning Commission's certification of the Final EIR.
- Approves an allocation of bond monies to pay for implementation of the project, and approves the well facility structures in Golden Gate Park.

- Approves the exterior design of structures on City property.

Implementation of the Project will involve consultation with or required approvals by other local, state, and federal regulatory agencies, including (but not limited to) the following:

- Other San Francisco City entities, including the Department of Public Health, the Department of Public Works and the San Francisco Municipal Transportation Agency
- California Department of Fish and Wildlife
- California Department of Public Health, Drinking Water Field Operations Branch
- California Coastal Commission
- California Department of Toxic Substances Control, if contaminated soil is encountered

To the extent that the identified mitigation measures require consultation or approval by these other agencies, this Commission urges these agencies to assist in implementing, coordinating, or approving the mitigation measures, as appropriate to the particular measure.

e. Contents and Location of Records

The record upon which all findings and determinations related to the Project are based ("Record of Proceedings") includes the following:

- The Draft EIR and all documents referenced in or relied upon by the EIR. (The references in these findings to the EIR or Final EIR include both the Draft EIR and the C & R document.)
- The PEIR for the Phased WSIP Variant, which is incorporated by reference in the SFGW Project EIR.
- All information (including written evidence and testimony) provided by City staff to the Planning Commission and the SFPUC relating to the EIR, the Project, and the alternatives set forth in the EIR.
- All information (including written evidence and testimony) presented to the Planning Commission and the SFPUC by the environmental consultant and sub-consultants who prepared the EIR or that was incorporated into reports presented to the Commission and the SFPUC.
- All information presented at any public hearing or workshop related to the Project and the EIR.
- The Mitigation Monitoring and Reporting Program.
- All other documents available to the Commission, the SFPUC and the public, comprising the administrative record pursuant to Public Resources Code Section 21167.6(e).

The Commission has relied on all of the information listed above in reaching its decision on the Project, even if not every document was formally presented to the Commission. Without exception, these documents fall into one of two categories. Many documents reflect prior planning or legislative decisions that the Commission was aware of in approving the Project. Other documents influenced the expert advice provided to Planning Department staff or consultants. For these reasons, such documents form part of the underlying factual basis for the Commission's decisions relating to the adoption of the Project.

The public hearing transcript, a copy of all letters regarding the Draft EIR received during the public review period, the administrative record, background documentation for the Final EIR, and materials related to the Planning Commission's adoption of these findings and its approval of the Project are available at the San Francisco Planning Department, 1650 Mission Street, San Francisco. **Jonas P. Ionin**, Commission Secretary, is the Custodian of Records for these Planning Department documents and materials. The SFPUC is the custodian of Project documents and materials contained in SFPUC files, SFPUC Project No. CUW30102 in the Bureau of Environmental Management, San Francisco Public Utilities Commission, 525 Golden Gate Avenue, San Francisco, California 94102. The Custodian of Records is **Yin Lan Zhang**. All files have been available to the Commission and the public for review in considering these findings and whether to approve the Project.

f. Findings about Significant Environmental Impacts and Mitigation Measures

The following Sections II, III, and IV set forth the Commission's findings about the Final EIR's determinations regarding significant environmental impacts and the mitigation measures proposed to address them. These findings provide the written analysis and conclusions of the Commission regarding the environmental impacts of the Project and the mitigation measures included as part of the Final EIR and adopted by the Commission as part of the Project. To avoid duplication and redundancy, and because the Commission agrees with, and hereby adopts, the conclusions in the Final EIR, these findings

will not repeat the analysis and conclusions in the Final EIR but instead incorporate them by reference and rely upon them as substantial evidence supporting these findings.

In making these findings, the Commission has considered the opinions of City staff and experts, other agencies, and members of the public. The Commission finds that (i) the determination of significance thresholds is a judgment decision within the discretion of the City; (ii) the significance thresholds used in the EIR are supported by substantial evidence in the record, including the expert opinion of the EIR preparers and City staff; and (iii) the significance thresholds used in the EIR provide reasonable and appropriate means of assessing the significance of the adverse environmental effects of the Project. Thus, although, as a legal matter, the Commission is not bound by the significance determinations in the EIR (see Public Resources Code, Section 21082.2, subdivision (e)), the Commission finds them persuasive and hereby adopts them as its own.

These findings do not attempt to describe the full analysis of each environmental impact contained in the Final EIR. Instead, a full explanation of these environmental findings and conclusions can be found in the Final EIR, and these findings hereby incorporate by reference the discussion and analysis in the Final EIR supporting the determination regarding the project impact and mitigation measures designed to address those impacts. In making these findings, the Commission ratifies, adopts and incorporates in these findings the determinations and conclusions of the Final EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

As set forth below, the Commission adopts and incorporates all of the mitigation measures set forth in the Final EIR and the attached MMRP to substantially lessen or avoid the potentially significant and significant impacts of the Project. The Commission intends to adopt each of the mitigation measures proposed in the Final EIR. Accordingly, in the event a mitigation measure recommended in the Final EIR has inadvertently been omitted in these findings or the MMRP, such mitigation measure is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in these findings or the MMRP fails to accurately reflect the mitigation measures in the Final EIR due to a clerical error, the language of the policies and implementation measures as set forth in the Final EIR shall control. The impact numbers and mitigation measure numbers used in these findings reflect the information contained in the Final EIR.

In Sections II, III and IV below, the same findings are made for a category of environmental impacts and mitigation measures. Rather than repeat the identical finding dozens of times to address each and every significant effect and mitigation measure, the initial finding obviates the need for such repetition because in no instance is the Commission rejecting the conclusions of the Final EIR or the mitigation measures recommended in the Final EIR for the Project.

II. LESS-THAN-SIGNIFICANT IMPACTS THAT DO NOT REQUIRE MITIGATION

Under CEQA, no mitigation measures are required for impacts that are less than significant (Public Resources Code, Section 21002; CEQA Guidelines, Sections 15126.4, subdivision (a)(3), 15091). Based on the evidence in the whole record of this proceeding, the Commission finds that the implementation of the

Project will result in no impacts in the following areas: wind and shadow; public services; and agricultural resources. These subjects are not further discussed in these findings. The Commission further finds that implementation of the Project will not result in any significant impacts in the following areas and that these impact areas therefore do not require mitigation:

Land Use

- **Impact LU-1:** Project operation would not result in substantial long-term or permanent impacts on the existing character of the vicinity.

- **Impact C-LU:** Implementation of the proposed Project would not result in a cumulatively considerable contribution to a significant cumulative impact on the existing character of the vicinity.

Aesthetics

- **Impact AE-1**: Temporary construction-related disturbances would not have an adverse effect on a scenic vista, scenic resource, or the existing visual character or quality of the site and its surroundings.

- **Impact AE-2:** Temporary construction would not result in substantial sources of light or glare and would not adversely affect day or nighttime views in the area.

- **Impact AE-3:** The proposed Project would not have an adverse effect on a scenic vista.

- **Impact AE-5:** The proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Cultural Resources

- **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.

- **Impact CP-3:** The proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Transportation and Circulation

- **Impact TR-1:** 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.

- **Impact TR-2:** 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.

- **Impact TR-3:** Project construction would not substantially limit access to adjacent roadways and land uses due to construction within roadways.

- **Impact TR-4:** 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.

- **Impact TR-5:** Project operation 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.

- **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.

Noise and Vibration

- **Impact NO-2:** Construction activities would not result in substantial groundborne vibration or groundborne noise levels.

- **Impact NO-3:** Project operation 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.

- **Impact C-NO:** Construction and operation of the proposed Project, in combination with other past, present and reasonably foreseeable future projects in the project vicinity, would not result in a cumulatively considerable contribution to significant noise and vibration impacts.

Air Quality

- **Impact AQ-1:** Project construction activities would not generate emissions of criteria pollutants and precursors such that a violation of air quality standards and substantial contribution to an existing air quality violation would occur.

- **Impact AQ-2:** Project construction would not result in substantial exposure of sensitive receptors to pollutant concentrations.

- **Impact AQ-3:** Project construction activities would not result in the creation of objectionable odors that affect a substantial number of people.

- **Impact AQ-4:** Project operation would generate emissions of criteria pollutants and precursors, but would not violate air quality standards or contribute substantially to an existing air quality violation.

- **Impact AQ-5:** Project operation would expose sensitive receptors to pollutant concentrations, but concentrations would not be considered substantial.

- **Impact AQ-6:** Project operation could create objectionable odors, but the odors would not affect a substantial number of people.

- **Impact C-AQ:** Construction and operation of 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.

Greenhouse Gas Emissions

- **Impact C-GG-1**: The proposed Project would generate greenhouse gas emissions during Project construction and operation, 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.

Recreation

- **Impact RE-1:** The proposed Project's construction would not 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 or otherwise result in substantial degradation of existing recreational resources.

- **Impact RE-2:** The proposed Project's operation would not 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.

Utilities and Service Systems

- **Impact UT-1:** Project construction would not result in a substantial adverse effect related to landfill capacity.

- **Impact UT-2:** Project construction would not result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste.

- **Impact UT-5:** Project operation would not result in the construction or expansion of wastewater treatment facilities, exceed wastewater treatment requirements, or result in a determination by the wastewater treatment provider that there is insufficient capacity to serve the project.

- **Impact UT-6:** Project operation would not 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.

Biological Resources

- **Impact BI-2:** Construction of the proposed Project would not adversely affect federally protected wetlands.

- **Impact BI-4:** The proposed project's facility siting and maintenance would not result in substantial biological resources impacts.

- **Impact BI-5:** Operation of the proposed Project would not adversely affect 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 ("CDFW") or the United States Fish and Wildlife Service ("USFWS").

Geology and Soils

- **Impact GE-1:** The proposed Project is not located on a geologic unit that could become unstable as a result of project construction.
- **Impact GE-2:** The proposed Project would not result in substantial soil erosion or the loss of topsoil during construction.
- **Impact GE-3:** The proposed Project would not expose people or structures to substantial adverse effects related to the risk of property loss, injury, or death due to seismically induced groundshaking.
- **Impact GE-4:** The proposed Project would not expose people or structures to substantial adverse effects related to the risk of property loss, injury, or death due to seismically induced ground failure, including liquefaction, lateral spreading, and settlement.
- **Impact GE-5:** The proposed Project would not create substantial risks to life or property due to expansive or corrosive soils.
- **Impact C-GE:** Project implementation would not result in cumulatively considerable impacts related to geology, soils, and seismicity.

Hydrology and Water Quality

- **Impact HY-2:** Project operation would not violate any water quality standards or waste discharge requirements or otherwise degrade water quality.
- **Impact HY-3:** The proposed Project would not 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, siltation, or flooding on or off the site.
- **Impact HY-4:** Project operation would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide an additional source of polluted runoff.
- **Impact HY-5:** The proposed Project would not result in adverse effects related to the placement of structures within a 100-year flood hazard area.
- **Impact HY-6:** Project operation would not decrease the production rate of existing nearby wells as a result of localized groundwater drawdown within the Westside Groundwater Basin such that existing or planned land use(s) would not be supported.
- **Impact HY-7:** Project operation would not result in substantial land subsidence due to decreased groundwater levels in the Westside Groundwater Basin.

- **Impact HY-10:** The Project operation would not have a substantial adverse effect on water quality in Pine Lake.

- **Impact HY-12:** Project operation would not have a substantial adverse effect on groundwater depletion in the Westside Groundwater Basin.

- **Impact C-HY-1:** Facility construction, siting, operation, and maintenance, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not adversely affect hydrology and water quality.

- **Impact C-HY-2:** Operation of the proposed Project, in combination with past, present, and reasonably foreseeable future projects, would not have a substantial adverse effect related to well interference.

- **Impact C-HY-3:** Operation of the proposed Project would not result in a cumulatively considerable contribution to cumulative impacts related to subsidence.

- I**mpact C-HY-6:** Operation of the proposed Project would not result in a cumulatively considerable contribution to cumulative impacts related to water quality standards.

- **Impact C-HY-7:** Operation of the proposed Project would not result in a cumulatively considerable contribution to cumulative impacts related to groundwater depletion.

Hazards and Hazardous Materials

- **Impact HZ-1:** Project construction would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or result in reasonably foreseeable upset and accident conditions involving the release of hazardous construction materials to the environment.

- **Impact HZ-3:** Project construction would not cause hazardous emissions or handle acutely hazardous materials within ¼ mile of a school.

- **Impact HZ-4:** Project construction would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- **Impact HZ-5:** Project operation would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- **Impact HZ-6:** Project operation would not cause hazardous emissions or handle acutely hazardous materials within ¼ mile of a school.

Mineral and Energy Resources

- **Impact ME-1:** Project construction would not result in substantial adverse effects related to the use of large amounts of fuel or energy, or the use of these resources in a wasteful manner.

- **Impact ME-2:** Project operation would not result in substantial adverse effects related to the long-term use of large amounts of fuel or energy, or the use of these resources in a wasteful manner.

- **Impact C-ME:** Project implementation would not result in cumulatively considerable impacts related to mineral and energy resources.

III. POTENTIALLY SIGNIFICANT OR SIGNIFICANT IMPACTS THAT CAN BE AVOIDED OR REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL THROUGH MITIGATION AND THE DISPOSITION OF THE MITIGATION MEASURES

CEQA requires agencies to adopt mitigation measures that would avoid or substantially lessen a project's identified significant impacts or potentially significant impacts if such measures are feasible (unless mitigation to such levels is achieved through adoption of a project alternative). The findings in this Section III and in Section IV concern mitigation measures set forth in the EIR. These findings discuss mitigation measures as proposed in the EIR and recommended for adoption by the SFPUC, which can be implemented by the SFPUC. The mitigation measures proposed for adoption in this section and referenced following each Project impact discussed in this Section III, are the same as the mitigation measures identified in the Final EIR for the project. The full text of each mitigation measure listed in this section is contained in the Final EIR and in Attachment B, the MMRP. The Commission finds that for the reasons set forth in the Final EIR and elsewhere in the record, the impacts identified in this section would be reduced to a less-than-significant level through implementation of the mitigation measures identified in this section.

Project Impacts

Impact AE-4: The project would have a substantial adverse effect on scenic resources or the existing visual character or quality of the site and its surroundings. (Less than Significant with Mitigation)

As a result of project operations, Lake Merced lake levels are generally expected to be approximately 10 feet lower than water levels expected without the project. Reduced water levels could detract from the scenic quality of the lake as viewed from the pedestrian path around the perimeter of the lake, adjacent roadways, trails, picnic areas, docks, and golf courses. The lowest estimated lake level, predicted at the end of the design drought, is approximately -10 feet City Datum, which would be below the bottom of Impound Lake at -6 feet City Datum and near the bottom of East Lake at -11 feet City Datum. Under the proposed Project, at the end of the design drought, East Lake would likely nearly dry-up and Impound Lake would likely dry up altogether, which would reduce the visual quality of that lake as seen from the paved path around the lake perimeter and the picnic areas on John Muir Drive and Lake Merced Boulevard. While Lake Merced conditions would be reduced naturally (under modeled existing conditions during the design drought), the proposed project's pumping would exacerbate such conditions at Lake Merced, a scenic resource, and the visual character and quality of Lake Merced area would therefore be degraded substantially. Thus, operation of the proposed Project could result in a *significant* aesthetic impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

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

Based on the results of the background research, geoarchaeological assessment, and survey results, there is generally, throughout the CEQA Area of Potential Effect, a low potential for uncovering archaeological resources during project construction. However, it is possible that 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.

- *Mitigation Measure M-CP-2a, Accidental Discovery of Archaeological Resources*

Impact CP-2b: Construction of the proposed Lake Merced well facility would potentially cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (Less than Significant with Mitigation)

Ground-disturbing activities associated with the Lake Merced well facility include excavation with recompaction to a depth of 5 to 8 feet throughout most of the site. Some areas could require vibrocompaction/stone columns (up to a depth of 24 feet) to stabilize potentially liquefiable soil. In consultation with San Francisco Planning Department's Environmental Review Officer, it has been determined that based on the geologic profile of the Lake Merced well facility and archaeological site distribution in the Lake Merced vicinity, ground-disturbing and -modifying activities associated with the proposed Project may adversely impact legally-significant prehistoric deposits, a *significant* impact.

- *Mitigation Measure M-CP-2b, Archeological Testing Program*

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

Based on the background research, geoarchaeological assessment, and survey results, there is a low potential for project construction to uncover human remains. Although no known human burials have been identified within the project site, the possibility of encountering human remains cannot be entirely discounted. Earthmoving activities associated with project construction could result in direct impacts on previously undiscovered human remains. Therefore, the disturbance to human remains could be a *potentially significant* impact.

- *Mitigation Measure M-CP-4, Accidental Discovery of Human Remains*

Impact CP-5: The proposed project would potentially cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (Less than Significant with Mitigation)

Under existing conditions projected to occur with Project groundwater pumping, the estimated mean monthly Lake Merced lake level would be reduced and more of the lakebed would be exposed. One archaeological resource has been identified along the shore of Lake Merced. The site consists of an undetermined area of shell midden with one isolated milling stone tool. Reduced lake levels resulting from Project pumping would not impact the known archaeological resource (the unnumbered Lake Merced site). However, reduced lake levels from Project pumping could result in the exposure of and damage to currently undiscovered archaeological resources, which would be a *significant* impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact NO-1: The proposed project would result in the exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance and therefore result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (Less than Significant with Mitigation)

Construction-related noise associated with the South Sunset, West Sunset, and North Lake well facilities, the Sunset Reservoir facilities, and pipeline segments south of Golden Gate Park would result in a noticeable but temporary increase in ambient noise levels (a significant impact). Noise from some construction equipment could exceed limits established in the San Francisco Noise Ordinance, a *significant* impact.

- *Mitigation Measure M-NO-1, Administrative and Source Controls*

Impact RE-3: The proposed project would physically degrade existing recreational resources. (Less than Significant with Mitigation)

Even during high precipitation periods when overall lake levels and lake acreages are predicted to be much less under Project conditions than under modeled existing conditions, the available surface areas of North and South Lakes are not predicted to decrease substantially with operation of the Project and floating and stationary docks would not be disconnected from the lake water surface at the predicted surface acreages. However, groundwater pumping during a high precipitation period is predicted to result in a substantial reduction in the overall size of Impound Lake, a recreation resource, and the shallow southern end of this lake would be entirely dewatered as a result. If such conditions occurred, the proposed Project would result in a substantial degradation of this recreational resource, as compared to modeled existing conditions, a *significant* impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact UT-3: Project construction would potentially result in a substantial adverse effect related to disruption of utility operations or accidental damage to existing utilities. (Less than Significant with Mitigation)

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 facilities 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 several of the groundwater pipeline routes and at the proposed well facility sites. 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. For the above reasons, impacts on existing utilities and utility services during Project construction could be *potentially significant*.

- *Mitigation Measure M-UT-3a, Preconstruction Utility Identification and Coordination;*
- *Mitigation Measure M-UT-3b, Protection of Other Utilities during Construction*
- *Mitigation Measure M-UT-3c, Safeguard Employees from Potential Accidents Related to Underground Utilities*
- *Mitigation Measure M-UT-3d, Notify San Francisco Fire Department*
- *Mitigation Measure M-UT-3e, Emergency Response Plan and Notification*
- *Mitigation Measure M-UT-3f, Ensure Prompt Reconnection of Utilities*
- *Mitigation Measure M-UT-3g, Coordinate Final Construction Plans with Affected Utilities*

Impact UT-4: Project construction would potentially result in a substantial adverse effect related to the relocation of local utilities. (Less than Significant with Mitigation)

The proposed alignments for the SFGW Project pipelines would cross beneath existing utilities at several locations, including but not limited to the MUNI light rail crossings. The SFGW 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, impacts related to utility relocation could be *potentially significant*.

- *Mitigation Measure M-UT-3a, Preconstruction Utility Identification and Coordination*
- *Mitigation Measure M-UT-3g, Coordinate Final Construction Plans with Affected Utilities*

Impact BI-1: Construction of the proposed project would potentially adversely affect species identified as a 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)

The overall potential of the Project area to support special-status plant species is considered extremely low, based on the lack of native plants and native plant communities, and on the high degree of disturbance associated with ongoing and past uses of the Project construction areas. All of the proposed

facility sites are located in areas that experience recurrent disturbance associated with human use of the areas and surrounding vicinity. Several special-status animals might use habitat in certain parts of the project area or vicinity for roosting, foraging, or breeding purposes, including California red-legged frog, western pond turtle, Yuma myotis, western red bat, and monarch butterfly. In addition, there are a number of native resident and migratory bird species protected under federal and State legislation with the potential to use trees, shrubs, and other habitats as well as buildings within the Project area for nesting and foraging.

Due to the proximity of aquatic habitats to the Lake Merced, North Lake, and Central Pump Station well facility sites, western pond turtle and California red-legged frog could utilize these Project well facility sites for dispersal or migratory movement to other aquatic features in the immediate area. Because Project construction at the these sites could adversely affect these species, should they be present, by direct mortality or temporary or permanent upland habitat removal, which would be a *significant* impact on these biological resources.

Vegetation clearing (including tree removal), irrigation well facility demolition, and exterior construction activities at the Sunset Reservoir Chlorine Station could result in direct mortality of special-status bats at the well facilities and Sunset Reservoir. Direct mortality of special-status bats would be a *significant* impact.

Non-native trees in Golden Gate Park, such as eucalyptus and Monterey cypress, could be used for migrating monarch butterflies between October and March. While none of the recorded overwintering monarch locations in Golden Gate Park would be affected by the proposed project, there is the potential for this species to utilize trees within the Golden Gate Park project sites. Vegetation clearing, including tree removal, could destroy or impact overwintering sites in these areas. The loss of an active overwintering site would be a *significant* impact.

- *Mitigation Measure M-BI-1a, Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle*
- *Mitigation Measure M-BI-1b, Avoidance and Minimization Measures for Special-Status Bats*
- *Mitigation Measure M-BI-1c, Avoidance and Minimization Measures for Monarch Butterfly*

Impact BI-3: Construction of the proposed project would conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant with Mitigation)

As designed, the SFGW Project would require the removal of trees that are under the jurisdiction of the SFRPD. Of the 150 trees and shrubs surveyed in the project area, 6 trees would be removed, while the remainder of the trees surveyed would be retained. All of the trees to be removed are not native to the San Francisco area. SFRPD must give permission for any trimming or removal of trees in the project area. In addition, the *Golden Gate Park Master Plan* states that individual large trees should be replaced in kind with similar species. Consequently, the removal of trees within SFRPD-managed lands without

replacement in-kind, would conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, resulting in a *significant* impact.

- *Mitigation Measure M-BI-3, Plant Replacement Trees*

Impact BI-6: Operation of the proposed project would potentially adversely affect sensitive habitat types associated with Lake Merced. (Less than Significant with Mitigation)

The proposed Project is predicted to result in water levels that are approximately 7 to 10 feet lower than levels expected under the modeled existing conditions for most of the modeled time period. During drought periods, water levels expected as a result of operating the project are predicted to fall as low as -10.4 feet City Datum, or 9.6 feet lower than the predicted minimum under the modeled existing conditions. Decreasing water levels could substantially reduce aquatic habitat and degrade water quality, thereby negatively affecting fish populations through impacts on fish habitat-related beneficial uses, which could be a *significant* impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact BI-7: Operation of the proposed project would adversely affect wetland habitats and other waters of the United States associated with Lake Merced. (Less than Significant with Mitigation)

Simulated Lake Merced lake levels under the project and cumulative scenarios were compared to the results of the modeled existing conditions scenario to assess whether wetland impacts would occur. The predicted vegetation response to declining water levels would differ depending on the water level without the project for a given period, which changes annually due to natural hydrological variation that would remain independent of project operation. Modeling results show that the proposed Project would alter lake levels in a manner that would result in net loss of wetlands, a *potentially significant* impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact HY-1: Project construction would possibly violate water quality standards and waste discharge requirements or otherwise substantially degrade water quality. (Less than Significant with Mitigation)

The Lake Merced well facility would be constructed within approximately 100 feet of Lake Merced in an area served by the separate storm sewer system at the lake. While the provisions of Article 4.1 of the San Francisco Public Works Code would apply if groundwater produced during construction of this well facility were discharged to the sewer system, groundwater could also be discharged into Lake Merced. If the water were discharged to Lake Merced, these discharges could degrade water quality, resulting in a *potentially significant* water quality impact.

- *Mitigation Measure M-HY-1, Implement Groundwater Dewatering BMPs at Lake Merced Well Facility*

Impact HY-8: Project operations would possibly result in seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin. (Less than Significant with Mitigation)

Because operation of the SFGW Project would increase groundwater withdrawals from the groundwater basin and the project wells are located relatively close to the Pacific Coast, there is the potential for seawater intrusion in the Shallow Aquifer. If seawater intrusion into the Shallow Aquifer were to occur, intrusion into the Primary Production Aquifer could also occur where these two aquifers are in hydraulic communication. Increased pumping in the North Westside Groundwater Basin under both Phases 1 and 2 of the Project could result in the landward migration of the seawater/freshwater interface to a greater degree than would occur under existing conditions and may not be detected with the existing coastal groundwater monitoring system. If the landward migration of the interface were to adversely affect the identified beneficial uses of the North Westside Groundwater Basin, impacts related to seawater intrusion would be *significant*.

- *Mitigation Measure M-HY-8a, Expand Coastal Monitoring Network*
- *Mitigation Measure M-HY-8b, Continuous Groundwater Monitoring in the Primary Production Aquifer*
- *Mitigation Measure M-HY-8c, Adaptive Management Program for Seawater Intrusion*

Impact HY-9: The proposed project would possibly have a substantial, adverse effect on water quality that could affect the beneficial uses of Lake Merced. (Less than Significant with Mitigation)

The Project has the potential to affect Lake Merced due to groundwater/surface water interactions. Lake Merced water levels are predicted to be lowered to below 1 foot City Datum for 73 to 76 percent of the simulation period in the model used in the analysis due to project-related pumping, compared to 4 percent predicted under the modeled existing conditions. If water levels were reduced to this extent, more of the lake bed would be exposed, making it susceptible to erosion and associated sedimentation of the lake, and the four individual lakes would separate hydraulically. Further, Impound Lake could be entirely dewatered if lake levels were to drop below -6 feet City Datum. This scenario could occur briefly at the end of the hypothetical design drought, and lake levels are also predicted to approach or exceed this level during the dry years 4 through 16 in the simulated period. Groundwater inflows to the lake are also predicted to be reduced relative to the modeled existing conditions. Reduced water levels and groundwater flows into the lake could increase eutrophication because nutrients discharged to the lake would be concentrated in a smaller lake volume. Also, with a smaller volume, the lake would likely mix more frequently, and, as a result (based on the patterns described above), would likely experience an increase in time-averaged dissolved oxygen levels in the hypolimnion. Because the project is predicted to cause Lake Merced water levels to fall below 0 feet City Datum substantially more frequently than is predicted to occur under modeled existing conditions, the resulting water quality changes under the Project could cause exceedences of water quality objectives in the San Francisco Bay Basin Plan related to warm and cold freshwater habitat (e.g., dissolved oxygen), which in turn could affect associated beneficial uses. Changes in dissolved oxygen levels and pH could also exacerbate the conditions responsible for Lake Merced's listing as an impaired water body. These changes affecting water quality would be a *potentially significant* impact.

- *Mitigation Measure M-HY-9, Lake-Level Management for Lake Merced*

Impact HY-11: Project operation would possibly cause a violation of water quality standards. (Less than Significant with Mitigation)

Potentially contaminating activities were identified within the groundwater protection zones for each of the production wells proposed under the SFGW Project. The types of potentially contaminating activities identified include the sewer system as well as illegal dumping and a number of land uses such as housing, parks, dry cleaners, historical gas stations, transportation corridors, golf courses, existing gas stations, fire stations, fertilizer/pesticide/herbicide application, and contractor or government storage yards. In addition, a leaking underground storage tank site with documented groundwater contamination was identified within the groundwater protection zone for the South Windmill Replacement well facility. However, the groundwater contamination plume is limited to the uppermost part of the aquifer and is stable. Further, a sensitive receptor survey for the site determined that the South Windmill Replacement well facility is located cross gradient from the site and that groundwater quality at this well is not likely to be affected as a result of the underground storage tank leak at this site. Because the Drinking Water Source Assessment and Protection Program reports identified potentially contaminating activities for each proposed well facility, each well is considered vulnerable to contamination that could cause a violation of water quality standards. Therefore, impacts related to violation of water quality standards would be *potentially significant*.

- *Mitigation Measure M-HY-11, Prepare a Source Water Protection Program and Update Drinking Water Source Assessment*

Impact HZ-2: Project construction would possibly result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials present in soil and groundwater. (Less than Significant with Mitigation)

The potential to encounter hazardous materials in soil and groundwater at the project sites resulting from migration of offsite contamination is considered low, based on a review of environmental databases conducted during preparation of the EIR, existing groundwater levels in the Project area, soil sampling results, and the maximum depth of excavation during project construction. The project sites are not listed as hazardous materials sites.

Site-specific soil sampling was conducted to determine whether hazardous materials are present at the six proposed well facility locations. Lead concentrations in shallow soil at North Lake and Central Pump Station well facility sites are above screening levels. The potential hazard to construction workers and/or the environment from exposure to known elevated lead levels in soil at the North Lake and Central Pump Station well facility sites would be a *potentially significant* impact.

In addition, although the potential to encounter hazardous materials in soil or groundwater arising from offsite sources is low, site conditions could change prior to construction if new contaminated sites are identified in the project vicinity or if there are substantial changes in the extent of contamination at known release sites. This potential for exposure to hazardous materials at other proposed well facility sites within the Project area also could be a *significant* impact.

- *Mitigation Measure M-HZ-2a, Preconstruction Hazardous Materials Assessment*

- *Mitigation Measure M-HZ-2b, Health and Safety Plan*
- *Mitigation Measure M-HZ-2c, Hazardous Materials Management Plan*

Impact HZ-7: Project operations would possibly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant with Mitigation)

Project operations would involve routine maintenance of groundwater facilities. Project operations associated with groundwater pumping would result in the lowering of the estimated mean monthly Lake Merced lake level. Because the project would result in lowering of Lake Merced water levels, there is the potential for the project to result in a smaller volume of water in the lake. The SFPUC maintains Lake Merced as a nonpotable emergency water supply for the city to be used for firefighting or sanitation purposes if no other sources of water are available. In the event of a major disaster (i.e., catastrophic earthquake), Lake Merced water could be pumped into the city's drinking water distribution system to maintain firefighting, basic sanitary (i.e., toilet flushing), and other critical needs, as part of the emergency response. Decreased lake levels could result in less available water for firefighting and sanitation purposes, which would be considered a *significant* impact.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Cumulative Impacts

Impact C-AE: The proposed project would have a cumulatively considerable contribution to a significant cumulative aesthetic impact. (Less than Significant with Mitigation)

The geographic scope for cumulative aesthetics impacts includes all projects that would be located within the publicly accessible viewshed of the proposed project. With operation of the identified cumulative projects, including the Daly City Vista Grande Basin Improvement Project and the Regional Groundwater Storage and Recovery Project, the estimated Lake Merced water levels are expected to be mostly higher than under existing conditions projected to occur without operation of the cumulative projects. However, during some years, Lake Merced water levels would likely be less than levels that would be expected to occur without operation of the cumulative projects. Under cumulative conditions, Impound Lake would likely be substantially reduced during the design drought, reducing the visual quality of that lake as seen from the paved pedestrian path around the lake perimeter and the picnic areas on John Muir Drive and Lake Merced Boulevard. Lake Merced water level conditions would be naturally reduced under modeled existing conditions. But, groundwater pumping associated with the proposed Project and the Regional Groundwater Storage and Recovery Project would worsen the hydrologic conditions and the scenic qualities of Lake Merced, which would likely be substantially degraded under cumulative conditions at the end of the design drought. Therefore, cumulative impacts on Lake Merced, as a scenic resource, and on the visual character and quality of the Lake Merced area would be significant. However, the Project's contribution to this cumulative aesthetic impact would be reduced to a less-than-cumulatively considerable level with implementation of Project- level mitigation measures (less than significant).

- *Mitigation Measure M-HY-9, Adaptive Management Program for Lake Merced*

Impact C-CP: The proposed project would possibly result in cumulatively considerable impacts related to historical, archaeological, or paleontological resources or human remains. (Less than Significant with Mitigation)

The SFGW Project could encounter previously unrecorded archaeological resources and/or human remains during project excavation. Cumulative projects in the proposed project vicinity that would also involve excavation include the Beach Chalet Athletic Fields Renovation Project, the Murphy Windmill/Millwright's Cottage Restoration Project, and the San Francisco Botanical Gardens Center for Sustainable Gardening Project. These Projects could also encounter previously unrecorded archaeological resources or human remains, which would be a potentially significant cumulative impact. However, with project-level mitigation, the Project's contribution to impacts on archeological resources due to Project construction would be not cumulatively considerable.

With operation of the identified cumulative projects, including the SFPUC's proposed Regional Groundwater Storage and Recovery project and Daly City's proposed Vista Grande Drainage Basin Improvement project, estimated Lake Merced water levels are expected to be mostly higher than under existing conditions projected to occur without operation of the cumulative projects. However, during some years, Lake Merced water levels are predicted to be less than levels that are predicted to occur without operation of the cumulative projects as a result of groundwater pumping under the proposed project and the Regional Groundwater Storage and Recovery Project. Reduced lake levels resulting from cumulative project operations could result in exposure and damage of currently known and unknown archaeological resources, which would be a significant cumulative impact. However, the Project's contribution to this impact would be reduced to a less-than-cumulatively considerable level with implementation of project-level mitigation measures (less than significant).

- *Mitigation Measure M-CP-2a, Accidental Discovery of Archaeological Resources*
- *Mitigation Measure M-CP-2b, Archeological Testing Program*
- *Mitigation Measure M-CP-4, Accidental Discovery of Human Remains*
- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact C-RE: The project's contribution to cumulative impacts on recreational resources and uses would be cumulatively considerable. (Less than Significant with Mitigation)

Specific additional proposed and existing projects that would affect lake levels include the SFPUC's Regional Groundwater Storage and Recovery Project and Daly City's proposed Vista Grande Drainage Basin Improvement Project. With operation of the identified cumulative projects, the estimated Lake Merced water levels are expected to be higher than under the modeled existing conditions. However, with operation of the identified cumulative projects, estimated lake levels would only be below the modeled existing conditions for years 2 through 8 of the simulation period and after year 32 during the modeled drought conditions. Under cumulative conditions, the available surface area of North and South Lakes would not decrease substantially as compared to modeled existing conditions and the water depth under cumulative conditions would likely be sufficient to support existing boating uses in all years. Further, based

on the GIS analysis of shoreline changes, floating and stationary docks would not be disconnected from the lake water surface. However, under cumulative conditions, Impound Lake water levels are predicted to be substantially reduced during an extended drought, as compared to modeled existing conditions. The depth and size of Impound Lake are predicted to be reduced naturally under modeled existing conditions during an extended drought. But, the combination of the groundwater pumping associated with the proposed project and the Regional Groundwater Storage and Recovery Project, along with other ongoing groundwater pumping activities, is predicted to exacerbate the effects described above during the years of an extended drought. Therefore, cumulative impacts on Lake Merced, as a recreational resource, would be significant. However, the Project's contribution to this impact would be reduced to a less-than-cumulatively considerable level with the implementation of a project-level mitigation measure (less than significant).

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact C-UT: Project implementation would result in cumulatively considerable impacts related to disruption or relocation of utilities, landfill capacity, or compliance with solid waste statutes and regulations. (Less than Significant with Mitigation)

Construction of the SFGW Project could damage existing utilities, disrupt utility services where utility lines would be crossed during construction, and require the temporary relocation of some utilities. Seven cumulative projects would be located adjacent to or near the proposed well facilities and/or pipeline routes, including: the San Francisco Westside Recycled Water Project, the San Francisco State University Campus Master Plan, Vista Grande Drainage Basin Improvement Project, Significant Natural Areas Management Plan, Lake Merced Pump Station Essential Upgrade, and the 3711 19th Avenue ("Parkmerced") Project. However, most of these projects would either not overlap geographically with the SFGW Project or would not occur within the same timeframe as the proposed Project; therefore the likelihood for potential disruption of the same utility lines would be minor. But, two of the projects listed above could also damage existing utilities, disrupt utility services, or cause relocation of utilities. Therefore, potential cumulative impacts related to disruption of utility operations or accidental damage to existing utilities and relocation of regional or local utilities could be significant. The Project's contribution to this potential cumulative impact could be cumulatively considerable. However, the proposed Project's contribution would be reduced to less than cumulatively considerable with implementation of project-level mitigation measures (less than significant).

- *Mitigation Measure M-UT-3a, Preconstruction Utility Identification and Coordination*
- *Mitigation Measure M-UT-3b, Protection of Other Utilities during Construction*
- *Mitigation Measure M-UT-3c, Safeguard Employees from Potential Accidents Related to Underground Utilities*
- *Mitigation Measure M-UT-3d, Notify San Francisco Fire Department*
- *Mitigation Measure M-UT-3e, Emergency Response Plan and Notification*
- *Mitigation Measure M-UT-3f, Ensure Prompt Reconnection of Utilities*

- *Mitigation Measure M-UT-3g Coordinate Final Construction Plans with Affected Utilities*

Impact C-BI: The proposed project would result in a considerable contribution to cumulative impacts related to special-status species, wetlands, waters of the United States, riparian habitat, wildlife nursery sites, or conflicts with local policies and ordinances protecting biological resources. (Less than Significant with Mitigation)

Construction of the Project has the potential to adversely affect special-status species, if present, including California red-legged frog, western pond turtle, special-status bats, and monarch butterfly. It is assumed that the cumulative projects including the Murphy Windmill/Millwright's Cottage Restoration, the Beach Chalet Athletic Fields Renovation Project, the Parkmerced Project, and the San Francisco Botanical Garden Center for Sustainable Gardening Project; and construction of new pipelines and facilities associated with the San Francisco Westside Recycled Water Project, and the Lake Merced Pump Station Essential Upgrade Project, could affect at least some of the same special-status species. If so, these projects, along with the SFGW Project, could result in a potentially significant cumulative impact on biological resources. However, with the implementation of project-level mitigation measures to reduce impacts to these species, the Project's incremental contribution to this potential cumulative impact on biological resources would not be cumulatively considerable (less than significant).

The proposed Project could conflict with local policies or ordinances protecting biological resources because project construction would require the removal of trees that are under the jurisdiction of the SFRPD. It is also assumed that several of the cumulative projects are likely to require the removal of trees within Golden Gate Park. In particular, the Beach Chalet Athletic Fields Renovation Project would require the removal of a number of Monterey pine and Monterey cypress trees. Therefore, the potential exists for tree removal resulting from these multiple projects to rise to the level of cumulative significance. However, with the implementation of project-level mitigation measures to replace trees, the Project's contribution to this impact would not be cumulatively considerable (less than significant).

Water levels decreasing below 0 feet City Datum could substantially reduce aquatic habitat and degrade water quality, thereby negatively affecting fish populations and fish-related beneficial uses of Lake Merced as well as potentially indirectly impacting special-status birds by reducing their food source. Cumulative project operations including SFPUC's Regional Groundwater Storage and Recovery Project and Daly City's proposed Vista Grande Drainage Basin Improvement Project are predicted to result in lake levels above 0 feet City Datum for about 90 percent of the model period and during that time would have no adverse impacts on fisheries or fish habitat. However, during pumping associated with the SFPUC's proposed Regional Groundwater Storage and Recovery Project, combined with pumping associated with the SFGW Project during the simulated design drought, lake levels are predicted to fall as low as -4.9 City Datum, or 4.1 feet lower than the corresponding predicted lake surface elevation for modeled existing conditions. Relative to the modeled existing conditions, this would likely result in a further potential for a decrease in the water quality of Lake Merced, as compared to modeled existing conditions. This suggests that the proposed Project could have a cumulatively considerable incremental contribution to the significant cumulative impact on the water quality of Lake Merced. However, with the implementation of project-level mitigation measures to address lake level management, the Project's cumulatively considerable contribution to water quality and related significant cumulative impact on

fisheries and fish habitat, and potential indirect impacts on special-status birds, would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-BI-1a, Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle*
- *Mitigation Measure M-BI-1b, Avoidance and Minimization Measures for Special-Status Bats*
- *Mitigation Measure M-BI-1c, Avoidance and Minimization Measures for Monarch Butterfly*
- *Mitigation Measure M-BI-3, Plant Replacement Trees*
- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

Impact C-HY-4: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would possibly have a substantial adverse effect related to seawater intrusion. (Less than Significant with Mitigation)

The potential for seawater intrusion under cumulative conditions with the operation of the Groundwater Storage and Recovery Project and the Daly City Vista Grande Drainage Basin Improvement Project would likely be similar to or less than what is predicted with operation of just the proposed project, except in the area south of the West Sunset well facility where the potential for seawater intrusion would likely be greater in the Deep Aquifer due to pumping under the Regional Groundwater Storage and Recovery Project. Therefore, cumulative impacts related to seawater intrusion could be significant. The Project's contribution to this impact could be cumulatively considerable because the Project would be almost entirely responsible for causing any seawater intrusion that would occur. However, with implementation of project-level mitigation measures, the Project's contribution to the significant cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-HY-8a, Expand Coastal Monitoring Network*
- *Mitigation Measure M-HY-8b, Continuous Groundwater Monitoring in the Primary Production Aquifer*
- *Mitigation Measure M-HY-8c, Adaptive Management Program for Seawater Intrusion*

Impact C-HY-5: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would possibly have a substantial adverse effect on water quality that could affect the beneficial uses of Lake Merced or water quality in Pine Lake. (Less than Significant with Mitigation)

The conservatively estimated lake levels under cumulative conditions including the operation of the Groundwater Storage and Recovery Project and the Daly City Vista Grande Drainage Basin Improvement Project are predicted to be below 1 foot City Datum for 13 percent of the simulation period compared to 4 percent under the modeled existing conditions. In addition, as noted above, the lake levels are predicted to be below the levels predicted under the modeled existing conditions for years 2 through 8 of the simulation period and after year 32. Therefore, cumulative impacts on Lake Merced water levels could be

significant because water level declines below 0 foot City Datum could occur. These water level declines could potentially cause increased eutrophication of the lake, and could also affect the pH and dissolved oxygen levels (the parameters responsible for the listing of Lake Merced as an impaired water body) as well as other water quality parameters, potentially resulting in significant cumulative water quality impacts.

The Project's contribution to this potentially significant cumulative impact would be cumulatively considerable because the lake level declines would primarily be due to declines in groundwater levels resulting from project-related pumping during years 2 through 8 and due to all groundwater pumping after year 32. However, the Project's contribution to this impact would be reduced to a less-than-cumulatively considerable level with implementation of a project-level mitigation measure to address lake level management (less than significant).

- *Mitigation Measure M-HY-9, Lake-Level Management for Lake Merced*

Impact C-HZ: Implementation of the proposed project would possibly result in cumulatively considerable impacts related to hazards and hazardous materials. (Less than Significant with Mitigation)

With the operation of the cumulative projects, the SFPUC's proposed Regional Groundwater Storage and Recovery Project and Daly City's proposed Vista Grande Drainage Basin Improvement Project, the estimated Lake Merced water levels are expected mostly to be higher than under modeled existing conditions (i.e., those that are projected to occur without operation of the cumulative projects). However, during some dry years, Lake Merced water levels are predicted to be less than those that would occur without operation of the cumulative projects. In the event of a major disaster (i.e., catastrophic earthquake), Lake Merced water could be pumped into the city's drinking water distribution system to maintain firefighting, basic sanitary (i.e., toilet flushing), and other critical needs. Decreased lake levels could result in less available water for firefighting and sanitation purposes, thereby resulting in a significant cumulative impact. However, the Project's contribution to this impact would be reduced to a less-than-cumulatively considerable level with the implementation of a project-specific mitigation measure to address lake level management.

- *Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*

IV. Significant Impacts That Cannot Be Avoided or Reduced to a Less-Than-Significant Level

WSIP Impact

Based on substantial evidence in the whole record of these proceedings, the Commission finds that, where feasible, changes or alterations have been required or incorporated into the SFGW Project to reduce the significant environmental impacts as identified in the Final EIR for the Project. All project-

specific impacts will be reduced to a less than significant level with the implementation of the mitigation measures proposed in the Final EIR and set forth in the MMRP, attached hereto as Exhibit A.

The Commission further finds, however, that the Project is a component of the WSIP and, therefore, will contribute to the significant and unavoidable impact caused by the WSIP water supply decision. For the WSIP impact listed below, the effect remains significant and unavoidable. The Commission determines that the following significant impact on the environment, as reflected in the Final PEIR, is unavoidable, but under Public Resources Code Section 21081(a) (3) and (b), and CEQA Guidelines Sections 15091(a) (3), 15092(b) (2) (B), and 15093, the Commission determines that the impact is acceptable due to the overriding considerations described in Section VI below. This finding is supported by substantial evidence in the record of this proceeding.

The WSIP PEIR and the SFPUC's Resolution No. 08-0200 approving the WSIP water supply decision identified three significant and unavoidable impacts of the WSIP: ***Impact 5.4.1-2-*** *Stream Flow: Effects on flow along Alameda Creek below the Alameda Creek Division Dam*; ***Impact 5.5.5-1-****Fisheries: Effects on fishery resources in Crystal Springs reservoir (Upper and Lower);* and ***Impact 7-1-****Indirect growth inducing impacts in the SFPUC service area*. Mitigation measures that were proposed in the PEIR were adopted by the SFPUC for these impacts; however, the mitigation measures could not reduce all the impacts to a less than significant level, and these impacts were determined to be significant and unavoidable. The SFPUC adopted the mitigation measures proposed in the PEIR to reduce these impacts when it approved the WSIP in its Resolution No. 08-0200. The SFPUC also adopted a Mitigation Monitoring and Reporting Program as part of that approval. The findings regarding the three impacts and mitigation measures for these impacts set forth in Resolution No. 08-0200 are incorporated into these findings by this reference, as though fully set forth in these CEQA Findings.

Subsequent to the certification of the PEIR, the Planning Department conducted more detailed, site-specific review of two of the significant and unavoidable water supply impacts identified in the PEIR. In the case of ***Impact 5.5.5.-1***, the project-level fisheries analysis in the Lower Crystal Springs Dam Improvement project Final EIR modifies the PEIR impact determination based on more detailed site-specific data and analysis and determined that impacts on fishery resources due to inundation effects would be less than significant. Project-level conclusions supersede any contrary impact conclusions in the PEIR. The SFPUC adopted CEQA Findings with respect to the approval of the Lower Crystal Springs Dam Improvement project in Resolution No. 10-0175. The CEQA Findings in Resolution No. 10-0175 related to the impacts on fishery resources due to inundation effects are incorporated into these findings by this reference, as though fully set forth in these CEQA Findings.

In the case of ***Impact 5.4.1-2***, the project level analysis in the Calaveras Dam Replacement project Final EIR modifies the PEIR determination and concludes that the impact related to stream flow along Alameda Creek between the diversion dam and the confluence with Calaveras Creek (PEIR Impact 5.4.1-2) will be less than significant based on more detailed, site-specific modeling and data. Project-level conclusions supersede any contrary impact conclusions in the PEIR. The SFPUC adopted CEQA Findings with respect to the approval of the Calaveras Dam Improvement project in Resolution No. 11-0015. The CEQA Findings in Resolution No. 11-0015 related to the impacts on fishery resources due to inundation

effects are incorporated into these findings by this reference, as though fully set forth in these CEQA Findings.

The remaining significant and unavoidable water supply impact listed in Resolution No. 08-0200 is as follows, relating to ***Impact 7-1***:

Potentially Significant and Unavoidable WSIP Water Supply and System Operation Impact

- **Growth**: Indirect growth-inducement impacts in the SFPUC service area.

V. EVALUATION OF PROJECT ALTERNATIVES

This section describes the Project as well as alternatives and the reasons for approving the Project and for rejecting the alternatives. CEQA mandates that an EIR evaluate a reasonable range of alternatives to the Project or the project location that generally reduce or avoid potentially significant impacts of the Project. CEQA requires that every EIR also evaluate a "No Project" alternative. Alternatives provide a basis of comparison to the Project in terms of their significant impacts and their ability to meet project objectives. This comparative analysis is used to consider reasonable, potentially feasible options for minimizing environmental consequences of the Project.

a. Reasons for Approval of the Project

The overall goals of the WSIP for the regional water system are to:

- Maintain high-quality water and a gravity-driven system.
- Reduce vulnerability to earthquakes – deliver basic service to the three regions in the service area within 24 hours and restore facilities to meet average-day demand within 30 days after a major earthquake.
- Increase delivery reliability – allow planned maintenance shutdown without customer service interruption and minimize risk of service interruption from unplanned outages.
- Meet customer water supply needs through 2018 – meet average annual water purchase requests during nondrought years and meet dry-year delivery needs while limiting rationing to a maximum 20 percent systemwide; diversify water supply options during nondrought and drought years and improve use of new water resources, including the use of groundwater, recycled water, conservation and transfers.
- Enhance sustainability.
- Achieve a cost-effective, fully operational system.

The Project would help meet WSIP goals by increasing water delivery reliability and helping to meet customer water supply needs. In addition, the project would provide up to 6 mgd of potable

groundwater for up to 30 days as an emergency water supply in the event of an earthquake or other major catastrophe. Specific objectives of the Project are to:

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

The Project would provide 3 to 4 mgd of groundwater to San Francisco's municipal water supply, thereby increasing the water supply over existing conditions using local groundwater. 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 Project will help the SFPUC to diversify its water supply portfolio by adding up to 4 mgd from local groundwater to the SFPUC water supply, which largely consists of imported surface water. The proposed Project is a fundamental component of the SFPUC's WSIP and is needed to fully meet WSIP goals and objectives, in particular those for seismic reliability, delivery reliability, and water supply reliability.

b. Alternatives Rejected and Reasons for Rejection

The Commission rejects the alternatives set forth in the Final EIR and listed below because the Commission finds that there is substantial evidence, including evidence of economic, legal, social, technological, and other considerations described in this section, in addition to those described in Section VI below, under CEQA Guidelines 15091(a)(3) that make such Alternatives infeasible. In making these infeasibility determinations, the Commission is aware that CEQA defines "feasibility" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors." The Commission is also aware that under CEQA case law the concept of "feasibility" encompasses (i) the question of whether a particular alternative promotes the underlying goals and objectives of a project, and (ii) the question of whether an alternative is "desirable" from a policy standpoint to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.

Under the No Project Alternative, the SFGW Project would not be constructed or operated. Proposed well facilities and associated disinfection facilities, distribution pipelines and pH-adjustment facilities would not be constructed, and the two existing irrigation wells in Golden Gate Park would not be converted to potable groundwater well facilities. The existing test wells would not be utilized as production wells and would be decommissioned in accordance with the well destruction requirement of the California Water Well Standards promulgated by the California Department of Water Resources and implemented by the City's Department of Public Health. Existing groundwater pumping in the Westside Groundwater Basin would continue at approximately 9.74 mgd – with 8.232 mgd outside of San Francisco, and 1.508 mgd in San Francisco (1.14 mgd of irrigation pumping in Golden Gate Park, 0.009 mgd of pumping for irrigation at the Edgewood Development Center, 0.32 mgd of pumping at the San Francisco Zoo, 0.004 mgd of pumping to maintain Pine Lake water levels, and 0.035 mgd of irrigation

pumping at the San Francisco Golf Club). The modeled existing groundwater basin conditions as described in the EIR would be predicted to continue under the No Project Alternative.

The No Project Alternative would not meet any of the project objectives, which are to expand and diversify the SFPUC's water supply portfolio to increase system reliability; increase the use of local water supply sources; and reduce dependence on imported surface water. Also, it 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. If the Project is not constructed, the SFPUC's water supply portfolio would not include 3 to 4 mgd of a local groundwater resource. 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, because of reduced water supply in San Francisco. The No Project Alternative would leave San Francisco without a high-quality emergency water supply during emergencies. If the regional water delivery system is damaged during an earthquake or other disaster, up to 6 mgd of local groundwater from the Project would not be available for up to 30 days following the event. Lake Merced, which is identified as an emergency water source for San Francisco for firefighting, sanitation and other nonpotable uses, would not be available for potable uses without boiling the water, in contrast to the Project, which would provide potable groundwater.

Under the No Project Alternative, groundwater pumping would continue at existing rates. Consequently, there is a low probability of long-term effects related to seawater intrusion, no impact to municipal supply wells from contaminating activities that could affect groundwater quality, and no need for additional energy use. The No Project Alternative would lessen the potential to lower Lake Merced water levels and lessen the resulting related effects on water quality, recreational resources, aesthetics and freshwater marsh wetlands. Lake levels would continue to respond to hydrologic conditions and fluctuate but are predicted to be higher by approximately 10 feet than under the Project. Consequently, effects on water quality, recreational resources, scenic resources, aquatic habitat and special status species, freshwater wetlands, archeological resources, and availability of Lake Merced water for fire and sanitation purposes would still occur but at a much lower frequency than with the Project. The No Project Alternative would not require use of hazardous materials, and all construction-related effects to archeological resources, noise levels, utility lines, biological resources, tree removals, hydrology or hazards would be avoided.

While the No Project Alternative would avoid or reduce impacts that would occur compared to those of the Project, the Project impacts would be fully mitigated through the adoption of identified mitigation measures. The only unmitigated impact that would occur with the Project is the Project's contribution as part of the WSIP to indirect impacts related to growth. To the extent that the 3 to 4 mgd of water supply from the Project contributes to growth, the Project's contribution to the indirect impacts associated with growth would not occur with the No Project Alternative.

The Commission rejects the No Project Alternative as infeasible because it would not meet any of the Project objectives, and because it would jeopardize the SFPUC's ability to meet the adopted WSIP goals and objectives as set forth in SFPUC Resolution No. 08-0200.

Under the Reduced Yield Alternative, the same facilities would be constructed as for the Project, except only four well facilities would be constructed instead of six. The Lake Merced site and the South Sunset site would not have well facilities and the existing test wells at these sites would not be converted to municipal supply wells. Pumping would be shifted away from Lake Merced and would occur northward and in Golden Gate Park. As a consequence, the Phase 1 production rate under this alternative would be approximately 1.75 mgd, compared to 2.5 to 3 mgd under Phase 1 of the Project. The Phase 2 production rate under the Reduced Yield Alternative would be 2.9 mgd, compared to 4 mgd under Phase 2 of the Project.

The four wells that would be part of the Reduced Yield Alternative would be capable of producing up to 4 mgd during a catastrophic emergency for up to 30 days, with the use of portable generators to provide backup power. The Project, by comparison, could produce up to 6 mgd of water for up to 30 days during a catastrophic emergency. The distribution system under Alternative 2 would be the same as for the Project, except a pipeline connecting the South Sunset well facility to the West Sunset well facility would not be constructed.

The Reduced Yield Alternative at full implementation results in the same yield as Phase 1 of the Project, but unlike Phase 1 of the Project, full implementation of the Reduced Yield Alternative relies on the provision of recycled water to Golden Gate Park, a project that has not been approved by SFPUC.

The Reduced Yield Alternative would meet all of the Project objectives but would only partially meet the WSIP goals and objectives. The total average yield for the Reduced Yield Alternative under normal operations would be 2.9 mgd compared to 4 mgd under the proposed Project, and it would provide less water following an earthquake or other catastrophic event. The SFPUC would be unable to fully meet WSIP goals and objectives related to customer water supply needs. SFPUC would have 1.1 mgd less of water supply available than identified as needed to meet WSIP goals and objectives, including projected water demand. In addition, SFPUC could be restricted from conducting planned maintenance without interrupting customer service. In an emergency, the Reduced Yield Alternative would provide 2 mgd less of potable groundwater in the first critical 30-day period than under the Project.

Environmentally Superior Alternative. The Reduced Yield Alternative would be the Environmentally Superior Alternative, other than the No Project Alternative.

The Reduced Yield Alternative would lessen the potential to lower Lake Merced water levels and result in related effects on water quality, recreational resources, aesthetics and freshwater marsh wetlands because Alternative 2 would eliminate pumping in the vicinity of Lake Merced and at the South Sunset Playground site. As a result, as compared to the Project, the Reduced Yield Alternative would have the same adverse effects but to a lesser degree, on Lake Merced water levels and associated impacts on water quality, biological resources, aesthetics, recreational resources, archeological resources and the availability of Lake Merced water for firefighting and sanitation purposes and the potential for seawater intrusion effects. Construction impacts would generally be less as well because a 4,460-foot distribution pipeline would be eliminated and 2 test wells would not be converted to production wells. All of the significant impacts of the proposed Project would remain significant under the Reduced Yield

Alternative, but the magnitude of significance would generally be less. Like the Project, all Project impacts would be reduced to a less-than-significant level with implementation of the same mitigation measures specified in the EIR.

The Reduced Yield Alternative would still contribute to the WSIP's significant and unavoidable indirect impact related to growth, but to a lesser degree than for the Project, as it would provide 1.1 mgd less of water supply that could contribute to growth.

The Commission rejects this alternative as infeasible because it will not allow the SFPUC to fully meet WSIP goals and objectives. Although this alternative would meet the SFPUC's objectives for the Project, it would only partially meet the WSIP goals and objectives, which rely directly on the 4 mgd of local groundwater supply that the Project would contribute to fulfill systemwide level of service objectives. The total average yield under normal operations for the Reduced Yield Alternative would be 2.9 mgd, causing the SFPUC to fall short of its WSIP identified supply need of 4 mgd from local groundwater by 2018. In a catastrophic emergency, the SFPUC would also be limited in its ability to meet WSIP seismic, delivery, and water supply reliability goals, particularly in San Francisco, because the total amount of potable groundwater available during an emergency would be 4 mgd instead of 6 mgd. For these reasons, the Commission rejects the Reduced Yield Alternative as infeasible.

The Local Desalination Plant Alternative would construct a small seawater desalination plant in San Francisco at or near the Oceanside Water Pollution Control Plant ("Plant"), to provide a sustained capacity of 4 mgd and an emergency capacity of 6 mgd of desalinated water, consistent with the amount of groundwater pumping provided under the proposed Project. Alternative 3 would provide year-round supplies during all hydrologic year types to blend into the regional system. It would require construction of a small desalination plant; an associated seawater intake structure 40-50 feet in depth off-shore; an intake pipeline located one to two miles off-shore; treatment facilities; and raw and treated water pump stations. It would also require construction of approximately 2.4 miles (12,700 feet) of distribution pipelines between the Oceanside Plant and the Sunset Reservoir.

It would be constructed within undeveloped portions of the existing Plant or on undeveloped land nearby, which may require improvements such as earthwork and concrete demolition to make the site geotechnically able to support the desalination facilities. The construction of improvements and operation and maintenance of the desalination plant at any of the potential undeveloped locations at or near the Plant could interfere with Plant operations. Other issues associated with undeveloped land at or near the Plant include the possibility of disturbing hazardous materials, the possible need to relocate overflow Zoo parking, or to demolish structures, some of which may be historic resources.

Alternative 3 would include a pretreatment process to remove pathogens and suspended solids, a dual-stage reverse-osmosis system to remove salts, and post-treatment to stabilize and disinfect the water. Brine from the treatment process would be discharged to the Plant and after treatment from the Plant to the ocean. Permits and approvals would be required from the California Department of Public Health, U.S. Army Corps of Engineers, National Marine Fisheries Service, Regional Water Quality Control Board and California Coastal Commission. Alternative 3 would cost considerably more than the Project. It

would take considerably additional time to complete a design, prepare possibly additional environmental review, and obtain necessary permits and approvals.

The proposed well facilities and associated disinfection facilities, distribution pipelines, and pH-adjustment facility that are part of the Project would not be constructed, and the two existing irrigation wells in Golden Gate Park would not be converted to potable groundwater wells. Existing groundwater pumping in the Westside Groundwater Basin would continue at approximately 9.74 mgd as described for the No Project Alternative.

Alternative 3 would meet all Project objectives and all WSIP goals and objectives that rely on the contribution of the Project to fulfill systemwide level of service objectives.

Under Alternative 3, long-term impacts associated with the Project would decrease. Groundwater pumping would continue at existing rates; consequently, there is a low probability of seawater intrusion, and no impact to municipal supply wells from contaminating activities that could affect groundwater quality. Alternative 3 would lessen the potential to lower Lake Merced water levels and result in related effects on water quality, recreational resources, aesthetics and freshwater marsh wetlands. Lake levels would continue to respond to hydrologic conditions and fluctuate but are predicted to be higher by approximately 10 feet than under the Project. Consequently, effects on water quality, recreational resources, scenic resources, aquatic habitat and special status species, freshwater wetlands, archeological resources, and availability of nonpotable Lake Merced water for firefighting and sanitation purposes would still occur but at a much lower frequency than with the Project.

Alternative 3 would introduce several additional short-term and long-term impacts that would be different than impacts associated with the Project. Depending on location, it could impact scenic resources viewed from the Great Highway, affect historic resources and disturb hazardous materials in buildings or soil. It could require removal of mature trees and habitat for the western pond turtle, California-red legged frog and special status bats at different locations than would occur with the Project. It could subject animals at the Zoo to construction-related noise, dust and vibration. Operation of the desalination plant could entrain or impinge on marine organisms in the intake pipeline, potentially adversely affecting special-status species, although the facility would be sited and designed to minimize sediment intrusion and impingement of marine organisms as well as to maximize water quality. The intake structure and pipeline could be subject to fault rupture given its location in or near the San Andreas Fault and would be in an area along the coast subject to instability and erosion. High-salinity discharges from the treatment facility into the Pacific Ocean could degrade water quality. Plant operation would increase the use, storage, transport and disposal of chemicals for pH adjustment, disinfection, particulate removal, control of mineral deposition, prevention of biological fouling, cleaning and reverse-osmosis to remove salts, thereby increasing risks associated with hazardous materials. Plant operation would substantially increase energy consumption for desalination and pumping. It could disturb hazardous building materials or hazardous materials in soil.

Construction impacts could be less or more intense than those of the Project. The total length of pipeline construction would be less than half that of the Project and would affect fewer residents, businesses and utilities, but could cause noise, dust and vibration impacts to Zoo animals. On the other hand, the

location of the Alternative 3 could affect more cultural resources in the vicinity of the desalination plant and distribution pipeline, and Alternative 3 would require construction in the ocean environment.

In sum, while the Local Desalination Plant Alternative would avoid long-term groundwater-related impacts of the Project, it would require a significant increase in hazardous materials use and long-term energy use compared to the project. It could be subject to hazards such as fault rupture and unstable slopes. Marine organisms could become entrained or impinged in the intake pipeline, and water quality effects could result from discharges of saline water from the desalination plant. Noise from construction-related impacts would affect fewer residents but could expose Zoo animals to construction-related noise and dust. Some construction-related effects from the Project would be avoided, but Alternative 3 would result in other construction-related impacts.

The Commission rejects Alternative 3 as infeasible because it would not result in fewer environmental impacts than for the Project and it creates implementation challenges because of regulatory and permitting requirements that it would have to meet. While the Project would mitigate all of its significant project-level environmental effects, as part of the WSIP, it would contribute to a significant and unavoidable indirect impact related to growth. Alternative 3 would likewise make the same contribution to a significant and unavoidable indirect impact related to growth as the Project. While some impacts associated with the Project would be avoided – mitigable impacts to Lake Merced and construction-related noise and utility impacts in residential areas - Alternative 3 would result in many new impacts not associated with the Project. These include a substantial increase in energy use to operate the desalination facility, and increased use of hazardous materials and associated possible effects of handling, storing, transporting and disposing of such materials. Alternative 3 would impact marine organisms and water quality because of the need to construct facilities, operate an intake pipe and discharge brine in the Pacific Ocean. Construction of the facility would occur in or near the San Andreas Fault and along a shoreline area susceptible to instability and erosion, resulting in geological impacts. Construction-related noise and dust impacts could adversely affect Zoo animals, and the facility could possibly have significant impacts to historic and scenic resources.

Alternative 3 would also need to meet regulatory and permitting conditions for brine disposal and for minimizing impacts on aquatic resources that pose challenges, making implementation of this alternative uncertain. For all of the above reasons, the Commission rejects Alternative 3 as infeasible.

Alternative 4, Pipeline Location Alternative, would construct 8,800 feet of pipeline on Sunset Boulevard instead of along 41st Avenue between Martin Luther King Jr. Drive in Golden Gate Park and Vicente Street and along 40th Avenue between Vicente Street and Wawona Street. In other respects, Alternative 4 would be the same as the Project.

Alternative 4 would meet all of the Project objectives and help meet the WSIP goals and objectives to the same degree as the Project.

Alternative 4 would result in similar impacts compared to the Project, with these exceptions. It would result in three increased impacts: it could temporarily disrupt recreational resources along the Sunset

Boulevard footpath, it would result in greater construction-related traffic impacts because Sunset Boulevard is a major thoroughfare and has more traffic than 41st Avenue and has bus stops that would need to be temporarily relocated, and it would increase the potential for inadvertent rupture of underground utilities because more utilities are located in Sunset Boulevard than 41st Avenue. It would result in one decreased impact: it would lessen construction-related noise impacts on residential receptors by moving pipeline-related construction further away from residences.

The Commission rejects this Alternative as infeasible because this Alternative would not result in fewer environmental impacts than for the Project. While reducing the temporary noise impacts to residents along portions of 41st and 40th Avenues, it would increase temporary impacts on recreational resources, utilities, and traffic along Sunset Boulevard.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to CEQA Section 21081 and CEQA Guidelines Section 15093, the Commission hereby finds, after consideration of the Final EIR and the evidence in the record, that each of the specific overriding economic, legal, social, technological and other benefits of the Project as set forth below, independently and collectively outweighs the significant and unavoidable impacts and is an overriding consideration warranting approval of the Project. Any one of the reasons for approval cited below is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the Commission will stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this section, and in the documents found in the Record of Proceedings, as defined in Section I.

On the basis of the above findings and the substantial evidence in the whole record of this proceeding, the Commission specifically finds that there are significant benefits of the Project in spite of the unavoidable significant impacts, and therefore makes this Statement of Overriding Considerations. The Commission further finds that, as part of the process of obtaining Project approval, all significant effects on the environment from implementation of the Project have been eliminated or substantially lessened where feasible. All mitigation measures proposed in the Final EIR for the Project are adopted as part of this approval action. Furthermore, the Commission has determined that any remaining significant effects on the environment found to be unavoidable are acceptable due to the following specific overriding economic, technical, legal, social, and other considerations.

The Project will have the following benefits:

- The Project will expand and diversify the SFPUC's water supply portfolio to increase system reliability, particularly for retail customers in San Francisco. The Project provides an additional 4 mgd of water supply from other than imported surface water, the main water supply source in the SFPUC water system.

- The Project will increase the use of local water supply sources. The Project provides 4 mgd of potable groundwater from the Westside Groundwater Basin, located in San Francisco and the San Francisco Peninsula area.
- The Project will reduce dependence on imported surface water. The Project provides 4 mgd from groundwater.

- The Project will provide potable groundwater for emergency supply in the event of an earthquake or other major catastrophe. The Project will provide up to 6 mgd from local groundwater wells for up to 30 days in the event a catastrophe causes a loss of available water from the SFPUC's regional water system.

In addition, the Project will further the WSIP's goals and objectives. As part of the approval of Resolution 08-2000, the SFPUC adopted a Statement of Overriding Considerations as to why the benefits of the WSIP outweighed the significant and unavoidable impacts associated with the WSIP. This Statement of Overriding Considerations is relevant to the significant and unavoidable impact related to growth-inducement to which this Project contributes. The findings regarding the Statement of Overriding Considerations set forth in Resolution No. 08-2000 are incorporated into these findings by this reference, as though fully set forth in these CEQA Findings. In addition, for the particular reasons set forth below, this project helps to implement the following benefits of the WSIP:

- Implementation of the WSIP will reduce vulnerability to earthquakes. The WSIP includes many features that are designed to improve the seismic safety and reliability of the water system as a means of saving human life and property under a catastrophic earthquake scenario or even a disaster scenario not rising to the level of catastrophe. Effecting the improvements to assure the water system's continued reliability, and developing it as part of a larger, integrated water security strategy, is critical to the Bay Area's economic security, competitiveness and quality of life. This Project provides a critical source of water – local groundwater – that will be available even if it is not possible for a period of time to obtain imported surface water from the SFPUC's regional water system.

- The WSIP would meet SFPUC customer water supply needs by providing 265 mgd of retail and wholesale customer purchases from the SFPUC watersheds, and meet or offset the remaining 20 mgd through conservation, recycled water, and groundwater in the retail and wholesale service areas. Ten mgd of this would be met, as proposed under the WSIP, through conservation, recycled water, and groundwater projects in San Francisco, and 10 mgd would be met through local conservation, recycled water and groundwater in the wholesale service area. Of the 10 mgd that would come from projects in San Francisco, the WSIP identifies 4 mgd from local groundwater sources. This Project would provide this critical 4 mgd of local groundwater.

- The WSIP will substantially improve use of new water sources and drought management, including use of groundwater, recycled water, conservation, and transfers. A critical part of the WSIP is to provide water from new sources other than from imported surface water from the Hetch Hetchy Valley or watersheds in Alameda County and the Peninsula. This Project is important to meeting the WSIP goal of providing water from a San Francisco groundwater resource.

- The WSIP projects are designed to meet applicable federal and state water quality requirements. This Project, with the implementation of Mitigation Measure HY-11, *Prepare a Source Water Protection*

Program and Update Drinking Water Source Assessment, will make certain that any potentially contaminating activities in the area of the groundwater wells, would not result in contamination of the groundwater extracted for drinking water purposes.

- The WSIP will diversify water supply options during non-drought and drought periods. The Project supports this WSIP objective by providing up to 4 mgd of local groundwater during both drought and non-drought periods.

Having considered these benefits, including the benefits discussed in Section I above, the Commission finds that the benefits of the Project and the Project's furtherance of the WSIP goals and objectives outweigh the unavoidable adverse environmental effects, and that the adverse environmental effects are therefore acceptable.

DECISION

That based upon the Record, the submissions of the SFPUC, the Department and SFPUC staff, and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **ADOPTS** findings under the California Environmental Quality Act, including rejecting alternatives as infeasible, adopting a Statement of Overriding Considerations, and **ADOPTS** a Mitigation Monitoring and Reporting Program, attached as **Exhibit A**

I herby certify that the Planning Commission ADOPTED the foregoing Motion on December 19, 2013.

Jonas P. Ionin
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: December 19, 2013

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Planning Commission Motion No. XXXX

GENERAL PLAN REFERRAL
HEARING DATE DECEMBER 19, 2013

Date:	December 12, 2013
Case No.:	**2008.1122EPR**
Project Name:	**San Francisco Groundwater Supply Project**
Zoning:	P (Public) Zoning District OS (Open Space) Height and Bulk District
Block/Lot:	7283/004 and 1700/001
Project Sponsor:	San Francisco Public Utilities Commission c/o Jeffrey Gilman 525 Golden Gate Ave. 10th Floor San Francisco, CA 94102
Staff Contact:	Kate McGee – (415) 558-6367 kate.mcgee@sfgov.org

ADOPTING FINDINGS OF CONSISTENCY WITH THE GENERAL PLAN AND WITH THE PRIORITY POLICIES OF PLANNING CODE SECTION 101.1 FOR THE PROPOSED GROUNDWATER SUPPLY PROJECT AND FINDINGS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

WHEREAS, Section 4.105 of the City Charter and 2A.53 of Administrative Code require General Plan referrals to the Planning Commission (hereinafter "Commission") for certain matters, including determination as to whether the lease or sale of public property, the vacation, sale or change in the use of any public way, transportation route, ground, open space, building, or structure owned by the City and County, would be in-conformity with the General Plan prior to consideration by the Board of Supervisors.

On August 3, 2008, the San Francisco Public Utilities Commission ("Project Sponsor") submitted an Environmental Evaluation Application to the Planning Department ("Department"), Case No. 2008.1122E, in connection with a project to provide an average of up to 4 million gallons per day ("mgd") of groundwater from the Westside Groundwater Basin to augment San Francisco's municipal water supply. The project, consisting of six groundwater wells, a pipeline distribution system, and a pH adjustment facility and chlorine analyzer, is located on the west side of the City on land owned by the City ("Project").

On December 30, 2009, the Department issued a Notice of Preparation of an Environmental Impact Report (NOP) for the Project.

On March 13, 2013, the Department published the Draft Environmental Impact Report ("DEIR" or "Draft EIR") for the Project and provided public notice in a newspaper of general circulation of the availability of the DEIR for public review and comment. The DEIR was available for public comment until April 27, 2013.

The San Francisco Planning Commission held a public hearing on the DEIR on April 18, 2013 at a regularly scheduled meeting to solicit public comment regarding the DEIR.

The Department prepared responses to comments on environmental issues received at the public hearing and in writing during the public review period for the DEIR, prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available during the public review period. This material was presented in a Draft Comments and Responses ("C & R") document, published on October 30, 2013, distributed to the Planning Commission and all parties who commented on the DEIR, and made available to others upon request at the Department.

A Final Environmental Impact Report ("FEIR" or "Final EIR") was prepared by the Department, consisting of the Draft EIR and the C&R document.

Project Environmental Impact Report files have been made available for review by this Commission and the public. These files are available for public review at the Planning Department at 1650 Mission Street, and are part of the record before this Commission.

On December 19, 2013, the Planning Commission reviewed and considered the Final EIR and found that the contents of the report and the procedures through which the Final EIR was prepared, publicized, and reviewed complied with the California Environmental Quality Act (California Public Resources Code section 21000 et seq.) ("CEQA"), 14 California Code of Regulations sections 15000 et seq. ("CEQA Guidelines"), and Chapter 31 of the San Francisco Administrative Code ("Chapter 31").

The Commission found the Final EIR was adequate, accurate and objective, reflected the independent analysis and judgment of the Department and the Commission, and that the summary of comments and responses contained no significant revisions to the Draft EIR, and approved the Final EIR for the Project in compliance with CEQA, the CEQA Guidelines and Chapter 31.

The Planning Department, Jonas P. Ionin, is the custodian of records, located in the File for Case No. 2008.1122E, at 1650 Mission Street, Fourth Floor, San Francisco, California.

Department staff prepared a Mitigation Monitoring and Reporting Program ("MMRP") for the Project and these materials were made available to the public and this Commission for this Commission's review, consideration and action.

PROJECT DESCRIPTION

The Project Sponsor, the San Francisco Public Utilities Commission ("SFPUC"), is proposing the San Francisco Groundwater Supply Project (Groundwater Supply Project). The proposed project would provide an average of up to 4 million gallons per day (MGD) of groundwater to augment San Francisco's

municipal water supply. All of 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 the City. All project components would be located on the west side of San Francisco on land owned by the City and County of San Francisco (CCSF). The Groundwater Supply Project includes the following components:

Construction of six groundwater production well facilities, including: 1. The construction of four new groundwater well facilities; and 2. The conversion of two existing irrigation well facilities in Golden Gate Park to potable groundwater well facilities, if the SFPUC's Westside Recycled Water Project is also approved and constructed. Each of these facilities would include a groundwater well and a pump station. Disinfection equipment would be included at two of the groundwater well facilities, and pH-adjustment equipment would be installed at one well facility.

- Construction of a distribution system (including pipeline and connection points) to connect five of the groundwater well facilities to the SFPUC's existing Sunset Reservoir. The sixth well would connect to the SFPUC's Lake Merced Pump Station (which pumps water to both Sutro and Sunset Reservoirs) and would require a short length of new distribution piping.

- Construction of a pH adjustment facility at Sunset Reservoir within an addition to the existing reservoir building and a chlorine analyzer/sample station at the reservoir.

The Project is proposed to be implemented in two phases: (1) construction and operation of the four new well facilities to supply an annual average of approximately 2.5 to 3.0 mgd of groundwater; and (2) conversion of the two existing irrigation well facilities and operation of the converted irrigation wells to provide an additional annual average of approximately 1.0 to 1.5 mgd of groundwater. Phase 1 includes conversion of previously installed test wells to groundwater supply wells. These test wells are located at the proposed well sites south of Golden Gate Park and in Golden Gate Park at the proposed Central Pump Station well site. The SFPUC also would construct pipelines necessary to deliver groundwater from the Phase 1 well facilities to the existing municipal water supply system at Sunset Reservoir or the Lake Merced Pump Station.

Phase 2 of the Project would be implemented only if the SFPUC approves and constructs the San Francisco Westside Recycled Water Project, which is currently undergoing separate environmental review. The San Francisco Westside Recycled Water Project proposes to provide recycled water to Golden Gate Park and nearby golf courses. If this Project is approved and constructed, SFPUC would convert two existing groundwater well facilities in Golden Gate Park that now supply groundwater for park irrigation and lake fill to municipal water supply. Phase 2 includes extension of groundwater supply pipelines to the well facilities in Golden Gate Park. The existing irrigation piping system would be retained to serve as a backup irrigation supply for Golden Gate Park.

The three main objectives of the SFGW Project are:

- Expand and diversify the SFPUC's water supply portfolio to increase system reliability
- Increase the use of local water supply sources

- Reduce dependence on imported surface water

In addition, the Project is part of the SFPUC's adopted Water System Improvement Program ("WSIP") adopted by the SFPUC on October 30, 2008 (see Section I.c). The WSIP consists of over 70 local and regional facility improvement projects that would increase the ability of the SFPUC's water supply system to withstand major seismic events and prolonged droughts and to meet estimated water-purchase requests in the service areas. With the exception of the water supply goal, the overall WSIP goals and objectives are based on a planning horizon through 2030. The water supply goal to meet delivery needs in the SFPUC service area is based on a planning horizon through 2018. The overall goals of the WSIP for the regional water system are to:

- Maintain high-quality water.
- Reduce vulnerability to earthquakes.
- Increase water delivery reliability.
- Meet customer water supply needs.
- Enhance sustainability.
- Achieve a cost-effective, fully operational system.

The Project would help meet WSIP goals by increasing water delivery reliability and helping to meet customer water supply needs. In addition, the Project would provide potable groundwater for emergency supply in the event that an earthquake or other major catastrophe interrupts the delivery of imported surface water supplies from Hetch Hetchy Reservoir and the local watersheds.

ENVIRONMENTAL REVIEW

On December 19, 2013, the Planning Commission (hereinafter "Commission") conducted a public hearing on the Final Environmental Impact Report (EIR) for the Project. The Commission reviewed and considered the EIR and found the contents of said report and the procedures through which the EIR was prepared, publicized and reviewed complied with the California Quality Environmental Quality Act (Public Resources Code section 21000 *et seq.*) ("CEQA"), the CEQA Guidelines (14 Cal. Code Reg. section 15000 *et seq.*), and Chapter 31 of the San Francisco Administrative Code.

On December 19, 2013, the Commission certified the Final EIR by Motion No. XXXX. Additionally, the Commission adopted approval findings, including findings rejecting alternatives, amending a mitigation measure, and making a statement of overriding considerations, and adopted a mitigation monitoring and reporting program ("MMRP") pursuant to CEQA by Motion No. XXXX, which findings and MMRP are incorporated by this reference as though fully set forth herein.

The proposal addresses the following relevant objectives and policies of the General Plan:

ENVIRONMENTAL PROTECTION ELEMENT

OBJECTIVE 5

ASSURE A PERMANENT AND ADEQUATE SUPPLY OF FRESH WATER TO MEET THE PRESENT AND FUTURE NEEDS OF SAN FRANCISCO.

The City and County of San Francisco owns and operates one of the most extensive water and power systems in the world. At present, the supply of fresh water generated by the Hetch Hetchy/Water Department system is more than adequate. Current projections indicate that the present system will meet San Francisco's needs until the year 2020. Over the years, the consumption of fresh water in the city has risen substantially: over 100 percent between 1940 and 1971. This increase in water consumption is primarily due to commercial expansion and has occurred despite a decline in San Francisco's resident population since 1950.

Hetch Hetchy and the SFPUC should continue their excellent planning program to assure that the water supply will adequately meet foreseeable consumption demands. To this end, the City should be prepared to undertake the necessary improvements and add to the Hetch Hetchy/SFPUC system in order to guarantee the permanent supply. Furthermore, San Francisco should continually review its commitments for the sale of water to suburban areas in planning how to meet future demand.

POLICY 5.1
Maintain an adequate water distribution system within San Francisco.

The project implements this policy. The proposed project would diversify and increase the reliability of San Francisco's water supply. It would provide an average of up to 4 million gallons per day of groundwater to augment San Francisco's municipal water supply.

The San Francisco Groundwater Supply Project is consistent with Planning Code Section 101.1(b) Priority Policies as follows:

1. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced.
   The Project would have no adverse effect on neighborhood serving retail uses or opportunities for employment in or ownership of such businesses. The proposed project would diversify and increase the reliability of San Francisco's water supply. A reliable water supply is essential for the preservation and enhancement of the neighborhood-serving uses.

2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhood.
   The Project would have no adverse effect on the City's housing stock or on neighborhood character. The Lake Merced, Central Pump Station, South Windmill Replacement, and North Lake well facilities are not located in any residential or commercial neighborhoods, but are rather located at Lake Merced and within Golden Gate Park and would not affect housing or neighborhood character. As for the proposed well facilities at South Sunset and West Sunset playgrounds, the proposed designs would be compatible with the surrounding playground facility buildings in both scale and design, and would not affect the overall neighborhood character. The proposed project facilities at these sites have received approval from the Civic Design Review Committee of the San Francisco Arts Commission.

3. That the City's supply of affordable housing be preserved and enhanced.
   The Project would preserve the City's supply of affordable housing by diversifying and increasing the reliability of the City's water supply.

4. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.
   The Project would not result in commuter traffic impeding MUNI's transit service, overburdening the streets or altering current neighborhood parking. The proposed project would construct up to six well stations in the western half of San Francisco. Each well station would require one daily visit by an SFPUC staff person for maintenance purposes. As such, commuter traffic would not increase notably that would impede MUNI services or the streets.

5. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for residential employment and ownership in these sectors be enhanced.
   The Project would not affect the existing economic base in this area. The proposed project would protect the diversity of retail and service uses already existing in the City by diversifying and increasing the reliability of the water supply.

6. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.
   The proposed project would diversify and increase the reliability of San Francisco's water supply, which would improve the City's preparedness for an earthquake. The proposed project well stations would also serve as an emergency potable water supply after an earthquake. Moreover, the proposed project well stations would be designed and constructed to comply with applicable San Francisco Municipal Code standards to ensure public safety in the event of an earthquake.

7. That landmarks and historic buildings be preserved.
   The proposed project would not affect designated landmarks or buildings. Golden Gate Park is a registered Historic District; however, the proposed project would not affect any landmarks or historic buildings within Golden Gate Park, or affect any contributors to the historic district. The project would construct a total of three well stations inside Golden Gate Park. One of the wells would be located next to the Central Pump Station, which is not a historic landmark or building, and the adjacent yard area is currently used as a wood waste storage and composting facility. The other two well facilities in Golden Gate Park would replace two existing well stations, neither of which are historic buildings as they were constructed in early 2000s.

8. That our parks and open space and their access to sunlight and vistas be protected from development.
   The proposed project has been designed in coordination with the SFRPD. New well stations would be constructed at South Sunset and West Sunset playgrounds. Three wells stations would be constructed in Golden Gate Park, one new well located next to the Central Pump Station, and two wells that would renovate the existing wells at South Windmill Replacement and North Lake irrigation wells. The

proposed well facilities would not be located on active play fields at South Sunset or West Sunset playgrounds, or in high visitor use areas in Golden Gate Park. The proposed project facility at the South Sunset Playground would include a room devoted exclusively to SFRPD storage for use in connection with the existing recreation uses. As the West Sunset Playground site, an area devoted to soils storage for use on the adjacent fields is proposed for use by the SFRPD.

Siting a well facility in the undeveloped forested area at the Central Pump Station well facility site would not substantially reduce Golden Gate Park recreation use areas, as this site is not highly used for recreation, and is adjacent to an existing, active irrigation pumping station and wood waste storage area. The site would include an approximately 798 square foot building with a resin-paved driveway and parking for worker site visits and maintenance. Therefore, the various recreational opportunities within the park would remain available during project construction activities and operations and would not be affected by completion of the proposed project.

The proposed Golden Gate Park wells would provide a backup irrigation supply and ornamental lake supply for Golden Gate Park, which would contribute to the upkeep of existing recreation areas in the park. For the reasons stated above, the proposed project would not affect public parks and open spaces operated and maintained by the SFRPD.

The proposed project would not affect the parks' access to vistas and sunlight. The Urban Design Element of the General Plan does not identify any scenic vistas near any of the proposed well facilities to be located within Golden Gate Park or on the Sunset District playgrounds.

The well facilities at West Sunset and South Sunset playgrounds would be located in out of the way spots and would not affect the vistas either from within or outside the playgrounds. The well buildings would be approximately 15 feet tall at those locations and would not block access to sunlight.

Within Golden Gate Park, the proposed project would not affect any significant vistas. The new well next to the Central Pump Station would be located in a wooded area. The well facility at North Lake would be immediately south of Fulton Street, and in another wooded area. The proposed project would demolish the current well building at North Lake and replace it with another similar utilitarian structure. The South Windmill Replacement well facility would also be a renovation of an existing well facility. The South Windmill Replacement site is in the western end of the Park and is in an area that is currently used to store logs, and contains stockpiles of soil, concrete blocks and other debris, and therefore does not represent a scenic vista. Because two of the wells in Golden Gate Park would be replacement wells, no new shade would be created. The well station at Central Pump Station would be in an existing wooded, shady area, and therefore, would also not create additional shade.

The Commission conducted a duly noticed public hearing at a regularly scheduled meeting to consider the proposed findings of General Plan conformity on December 19, 2013.

On December 19, 2013, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting to consider the General Plan Referral application, Case No. 2008.1122EPR. The Commission

heard and considered public testimony presented at the hearing and has further considered written and oral testimony provided by Department staff and other interested parties.

NOW THEREFORE BE IT RESOLVED that the Commission hereby adopts the CEQA Findings set forth in Motion No. XXXXX) and finds the proposed groundwater supply project, as described above, to be consistent with the General Plan of the City and County of San Francisco, including, but not limited to the Environmental Protection Element, and is consistent with the eight Priority Policies in City Planning Code Section 101.1 for reasons set forth in this motion.

I hereby certify that the Planning Commission ADOPTED the foregoing Motion on December 19, 2013.

Jonas P. Ionin
Commission Secretary

AYES:

NOES:

ABSENT:

ADOPTED: December 19, 2013

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SAN FRANCISCO
PLANNING DEPARTMENT

Subject to: (Select only if applicable)

☐ Affordable Housing (Sec. 415)
☐ Jobs Housing Linkage Program (Sec. 413)
☐ Downtown Park Fee (Sec. 412)
☐ First Source Hiring (Admin. Code)
☐ Child Care Requirement (Sec. 414)
☐ Other

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Planning Commission Draft Motion

HEARING DATE: DECEMBER 19, 2012

Date:	December 12, 2013
Case No.:	**2008.1122P**
Project Name:	**San Francisco Groundwater Supply Project**
Zoning:	P (Public) Zoning District OS (Open Space) Height and Bulk District
Block/Lot:	7283/004 and 1700/001
Project Sponsor:	San Francisco Public Utilities Commission c/o Jeffrey Gilman 525 Golden Gate Ave. 10th Floor San Francisco, CA 94102
Staff Contact:	Michael Smith, (415) 558-6322 michael.e.smith@sfgov.org

ADOPTING FINDINGS RELATING TO THE APPROVAL OF A COASTAL ZONE PERMIT APPLICATION PURSUANT TO PLANNING CODE SECTION 330 TO ALLOW CONSTRUCTION OF THREE GROUNDWATER WELL FACILITIES AND ASSOCIATED PIPELINES IN THE CITY'S COASTAL ZONE. THE LAKE MERCED WELL FACILITY WOULD BE LOCATED NORTHWEST OF THE INTERSECTION BETWEEN LAKE MERCED BOULEVARD AND BROTHERHOOD WAY, ADJACENT TO THE EXISTING LAKE MERCED PUMP STATION, OWNED AND OPERATED BY THE SAN FRANCISCO PUBLIC UTILITES COMMISION. TWO WELL FACILITIES WOULD BE LOCATED IN WESTERN GOLDEN GATE PARK. THE SOUTH WINDMILL REPLACEMENT WELL FACILITY WOULD BE LOCATED NORTH OF MARTIN LUTHER KING JR. DRIVE AND EAST OF THE MURPHY WINDMILL AND MILLWRIGHT'S COTTAGE. THE NORTH LAKE WELL FACILITY WOULD BE LOCATED SOUTH OF FULTON STREET AND ADJACENT TO CHAIN OF LAKES DRIVE. BOTH OF THE PROPOSED WELLS IN GOLDEN GATE PARK WOULD BE REPLACEMENT OF EXISTING IRRIGATION WELLS OPERATED BY THE SAN FRANCISCO RECREATION AND PARKS DEPARTMENT WITH MUNICIPAL WATER WELLS. THE PROJECT AREA IS WITHIN THE P (PUBLIC) ZONING DISTRICT AND THE OPEN SPACE HEIGHT AND BULK DISTRICT.

PREAMBLE

On August 22, 2013, Jeffrey Gilman of the San Francisco Public Utilities Commission (hereinafter "Project Sponsor" or "SFPUC") filed an application with the Planning Department (hereinafter "Department") for a Coastal Zone Permit under Planning Code Section 330 to allow construction of the San Francisco Groundwater Supply Project ("Project"). The San Francisco Groundwater Project consists of a total of six groundwater well facilities and approximately five miles of pipelines in the western portion of San Francisco that would produce a total of four millions gallon per day of groundwater to augment the City's water supply. Three of the six groundwater well facilities and associated pipelines are located in the City's Coastal Zone, one at Lake Merced, adjacent to the existing SFPUC Lake Merced Pump Station, and two in western Golden Gate Park, at South Windmill and North Lake.

On November 19, 2013, the Department mailed a letter to the California Coastal Commission (CCC) to inform the CCC that an application for a Local Coastal Zone Permit had been filed. The letter disclosed to the CCC that the Project is appealable to the CCC.

On December 19, 2013, the Planning Commission (hereinafter "Commission") conducted a public hearing on the Final Environmental Impact Report (EIR) for the Project. The EIR tiers from the SFPUC's Water Supply Improvement Program Programmatic Environmental Impact Report, certified in 2008. The Commission reviewed and considered the EIR and found the contents of said report and the procedures through which the EIR was prepared, publicized and reviewed complied with the California Quality Environmental Quality Act (Public Resources Code section 21000 *et seq.*) ("CEQA"), the CEQA Guidelines (14 Cal. Code Reg. section 15000 *et seq.*), and Chapter 31 of the San Francisco Administrative Code.

On December 19, 2013, the Commission certified the Final EIR by Motion No. XXXXX. Additionally, the Commission adopted project approval findings under CEQA, including findings rejecting alternatives, adopting a mitigation monitoring and reporting program and making a statement of overriding considerations (due to the project's contribution to growth-inducing impacts as part of the SFPUC's Water Supply Improvement Program). These findings, including the MMRP, are incorporated by this reference as though fully set forth herein.

On December 19, 2013, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting to consider the Coastal Zone Permit, Case No. 2008.1122P. The Commission heard and considered public testimony presented at the hearing and has further considered written and oral testimony provided by Department staff and other interested parties.

On December 19, 2013, the Commission approved the Coastal Zone Permit requested in the application under Case No. 2008.1122P based to the findings below.

FINDINGS

Having reviewed the materials identified in the preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and constitute findings of this Commission.

2. **Site Description and Present Use.** The project sites are located at Lake Merced and the west end of Golden Gate Park, Assessor's Block/Lot 7283/004 and 1700/001, both parcels are within the P (Public) Zoning District and the Open Space Height and Bulk District. The Lake Merced well facility is located northwest of the intersection between Lake Merced Boulevard and Brotherhood Way, adjacent to the existing Lake Merced Pump Station. The South Windmill Replacement well facility is a replacement of an existing well pump station that 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 North Lake well facility is also a replacement of an existing well pump station located in the western part of Golden Gate Park, south of Fulton Street and adjacent to Chain of Lakes Drive East. The Lake Merced well facility site is currently an undeveloped area adjacent to the access road and entrance to SFPUC's Lake Merced Pump Station. The South Windmill Replacement well site is in the western end of Golden Gate Park and is currently occupied by an existing irrigation well pump station, while the surrounding area is used by the San Francisco Recreation and Parks Department (SFRPD) to store logs and contains stockpiles of soil, concrete blocks and other debris. The North Lake well site, also in western Golden Gate Park, is currently occupied by an existing irrigation well pump station. The site is surrounded by trees and bounded by Fulton Street to the north and Chain of Lakes Drive to the south.

3. **Surrounding Properties and Neighborhood.** The closest neighborhood to the Lake Merced well site is Lake Shore. High-density residential uses at the Parkmerced housing development are located east of the site and the Tournament Players Cup (TCP) Harding Park is to the north. The San Francisco Golf Club and Impound Lake are to the south. For the South Windmill site, the closest neighborhood is the Outer Sunset to the south, across Lincoln Way. The Beach Chalet Soccer Fields are north of the site, and the Great Highway and Ocean Beach are to the west. The neighborhood closest to the North Lake well site is the Outer Richmond to the north, across Fulton Street. The site is bounded by park lands on the other three sides, including North Lake to the south.

4. **Project Description.** The SFPUC is proposing the San Francisco Groundwater Supply Project. The proposed project would provide an average of up to 4 million gallons per day (mgd) of groundwater to augment San Francisco's municipal water supply. All of 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 the city. All project components would be located on the west side of San Francisco on land owned by the City and County of San Francisco (CCSF). The Groundwater Supply Project includes the following components:

    - Construction of six groundwater production well facilities, including: (1) the construction of four new groundwater well facilities; and (2) the conversion of two existing irrigation well facilities in Golden Gate Park to potable groundwater well facilities, if the SFPUC's Westside Recycled Water Project is also approved and constructed. Each of these facilities would include a groundwater well and a pump station.

    - Construction of a distribution system (including pipelines and connection points) to connect five of the groundwater well facilities to Sunset Reservoir. The sixth well would connect to the Lake Merced Pump Station (which pumps water to both Sutro and Sunset Reservoirs) and would require a short length of new distribution piping.

- Construction of a pH-adjustment facility at Sunset Reservoir within an existing reservoir building and a chlorine analyzer at the reservoir.

Three of the six well facilities and their associated pipelines would be located in the City's Coastal Zone: the Lake Merced well facility, the South Windmill Replacement well facility, and the North Lake well facility. The Lake Merced well facility would be sited northwest of the intersection between Lake Merced Boulevard and Brotherhood Way, adjacent to the existing SFPUC Lake Merced Pump Station. The South Windmill Replacement well facility would be a replacement of an existing well pump station that 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 North Lake well facility is also a replacement of an existing well pump station located in the western part of Golden Gate Park, south of Fulton Street and adjacent to Chain of Lakes Drive East.

5. **Coastal Zone.** Pursuant to Planning Code Section 330, review of a Coastal Zone Permit Application is required as the project site is within the Local Coastal Zone Boundary per City Zoning Map Sheet CZ05 and CZ13. The Local Coastal Zone boundary within Golden Gate Park starts at Fulton Street and 40th Avenue, curves eastwardly from the Chain of Lakes Drive and ends at Lincoln Way and 41st Avenue. The Local Coastal Zone boundary at Lake Merced south of TCP Harding Park extends east of Lake Merced Boulevard and down to the border with Daly City. The project is appealable to the Coastal Commission because it is considered a major public works project.

6. **Public Comment**. The Department has received no comments to date regarding the Coastal Zone Permit application.

7. **Planning Code Compliance:** The Commission finds that the Project is consistent with the relevant provisions of the Planning Code in the following manner:

   A. **Land Use.** Structures and uses of governmental agencies not subject to regulation by the Planning Code and public structures and uses of the City and County of San Francisco, and of other governmental agencies that are subject to regulation by this Code are principally permitted within the P (Public) District.

   The installation of the proposed groundwater well facilities and associated pipelines that are operated by the San Francisco Public Utilities Commission are public facilities that are principally permitted within the P District.

   B. **Coastal Zone Permit Findings.** Planning Code Section 330.5.2 states that the Planning Commission in reviewing a Coastal Zone Permit application shall adopt factual findings that the project is consistent or not consistent with the Local Coastal Program and that a Coastal Zone Permit shall be approved only upon findings of fact establishing that the Project conforms to the requirements and objectives of the San Francisco Local Coastal Program.

The requirements and objectives of the San Francisco Local Coastal Program are established in the Western Shoreline Plan of the General Plan with specific objectives and policies related to Golden Gate Park and Lake Merced.

8. **Coastal Plan Compliance.** The Project is consistent with the following Objectives and Policies in the Western Shoreline Area Plan:

WESTERN SHORELINE AREA PLAN – GOLDEN GATE PARK
Objectives and Policies

OBJECTIVE 3:
ENHANCE THE RECREATIONAL CONNECTION BETWEEN GOLDEN GATE PARK AND THE BEACH FRONTAGE

Policy 3.1:
Strengthen the visual and physical connection between the park and beach. Emphasize the naturalistic landscape qualities of the western end of the park for visitor use. When possible eliminate the Richmond-Sunset sewer treatment facilities.

Policy 3.2:
Continue to implement a long-term reforestation program at the western portion of the park.

The proposed well facilities within Golden Gate Park would replace SFRPD's existing irrigation wells at South Windmill and North Lake and as such they do not represent a new use of Golden Gate Park. Because the proposed replacement wells would occupy roughly the same footprint as the existing irrigation wells, the naturalistic landscape qualities around the project sites would remain intact. The SFPUC proposes to remove two Monterey cypress trees at the North Lake well facility site. Tree removal would be conducted outside of the nesting season to the extent feasible. If trees need to be removed during the nesting season, a preconstruction survey would be conducted. If active nests were discovered then tree removal would be delayed until juveniles have fledged. The two trees that would be removed would also be replaced at a ratio of one-to-one or greater. The proposed tree replacement is consistent with emphasizing the natural landscape qualities of the Park and also the need for continued reforestation of the Park's aging tree population.

The South Windmill Replacement well facility site is within the site of the former Richmond-Sunset sewer treatment plant, which was largely removed in 1996. Few remnants of the treatment plant facilities are still on site; however, because the proposed well would occupy approximately the same footprint as the existing irrigation well, it would not preclude the further cleanup and removal of the Richmond-Sunset sewer treatment facilities. Because the proposed development would preserve the naturalistic qualities of the western end of the park and would contribute to the reforestation program at the western portion of the park, the proposed project is therefore consistent with policies 3.1 and 3.2 of the Western Shoreline Area Plan.

WESTERN SHORELINE AREA PLAN – LAKE MERCED

Objectives and Policies

OBJECTIVE 5:
PRESERVE THE RECREATIONAL AND NATURAL HABITAT OF LAKE MERCED.

Policy 5.1
Preserve in a safe, attractive, and usable condition the recreation facilities, passive activities, playgrounds and vistas of Lake Merced area for the enjoyment of citizens and visitors to the city.

Policy 5.3
Allow only those activities in Lake Merced area which will not threaten the quality of the water as a standby reservoir for emergency use.

The proposed Lake Merced well facility would not adversely affect the vistas of Lake Merced because the facility would have minimal visibility from the public road, Lake Merced Boulevard or the sidewalk. The project includes the installation of a bench below the sidewalk that would provide an overlook onto the lake. At the site of the proposed overlook, the well facility would be visible; however the viewer's view shed at that location would be directed to the larger vista of the lake. Also, because the facility would include a green roof, it would provide visual continuity with the trees surrounding the lake. However, the proposed project as a whole could have a significant impact on the visual resources of Lake Merced due to the combined pumping from all six groundwater wells. Modeling conducted for the project predicts that East Lake would be nearly dried up and Impound Lake would be completely dry at the end of a prolonged drought, which would reduce the visual quality of the lake as seen from the paved path around the lake perimeter and the picnic areas on John Muir Drive and Lake Merced Boulevard. While the water level in Lake Merced would be reduced naturally during a drought, the proposed project's pumping would exacerbate such conditions, and the visual character and quality of Lake Merced area would therefore be degraded substantially. As such, ***Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*** *in the EIR requires the SFPUC to implement lake level management procedures to maintain Lake Merced at water levels similar to conditions that would occur without the project. These corrective actions include the additions of supplemental water and/or alteration of pumping patterns, as necessary. Therefore, with implementation of Mitigation Measure M-HY-9, Lake Merced would be maintained at conditions similar to those that are predicted to occur without project-related pumping. As a result, aesthetic resources at Lake Merced would be preserved.*

The proposed Lake Merced well facility would also not adversely affect Lake Merced's recreational resources because it would be located in an area that does not provide any recreational use (adjacent to the access road to Lake Merced Pump Station) and it would not affect access to any public trails or docks. However, combined groundwater pumping from all six project wells could lower water levels at Lake Merced in a manner that would result in signification impacts to recreational resources. Groundwater modeling for the project shows that the lowest modeled lake level with operation of the project, predicted to occur near the end of the design drought, is approximately -10-feet City Datum, which would be below the bottom of Impound Lake and near the bottom of East Lake. The lake is a recreational resource used for boating/paddling and fishing, including fishing from floating and stationary docks. Reduced water levels would reduce the lake acreage available for boating and fishing. Should water levels be reduced

substantially, stationary docks would not provide access to the lowered water surface, and Impound Lake and East Lake, which are smaller/shallower lakes than North Lake and South Lake, could dry up altogether. Under such conditions, the proposed project would result in a substantial degradation of this recreational resource, as compared to modeled existing conditions. To prevent such impacts, ***Mitigation Measure M-HY-9, Lake Level Management for Lake Merced*** *requires the SFPUC to implement lake level management procedures to maintain Lake Merced at water levels similar to conditions that are predicted to occur without the project. These corrective actions include the additions of supplemental water and/or alteration of pumping patterns, as necessary. Therefore, with implementation of Mitigation Measure M-HY-9, Lake Merced, as a recreational resource, would be maintained.*

Because the proposed project would preserve the recreational facilities and scenic vistas of Lake Merced, it would be consistent with Policy 5.1 of the Western Shoreline Area Plan.

With respect to Lake Merced water quality, the proposed project would implement appropriate water quality best management practices as required by the City's Green Building Ordinance as well as Mitigation Measure M-HY-1, Implement Groundwater Dewatering BMPs at Lake Merced Well Facility during construction to prevent erosion and sedimentation that would degrade the water quality of the lake. Accordingly, the SFPUC will implement an Erosion Control Plan as required by the San Francisco Green Building Ordinance which would include BMPs to address housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, landscape materials, and pollutant control); non-stormwater management; erosion control; sediment control; and run-on and runoff control from the project site. Furthermore, Mitigation Measure M-HY-1, Implement Groundwater Dewatering BMPs at Lake Merced Well Facility, specifies that if groundwater produced during construction of the Lake Merced facility is not discharged to the sewer system, the SFPUC shall develop and implement standard BMPs for the treatment of sediment-laden water produced during groundwater dewatering. BMPs could include discharging water through filtration media, such as filter bags or a similar filtration device, or allowing the filtered water to infiltrate into the soil. The discharge of groundwater shall also be conducted at a rate that does not allow ponding and no chemicals shall be added to the discharged groundwater. Alternatively, rather than discharging groundwater, filtered groundwater could be used to spray disturbed areas and the soil stockpile to reduce fugitive dust emissions, if there is sufficient water and it is determined feasible by the construction contractor. With the implementation of the Erosion Control Plan and Mitigation Measure M-HY-1, construction of the Lake Merced well facility would not threaten the water quality of the lake.

As discussed above, the combined groundwater pumping from the overall project could lower water levels in Lake Merced, which could result in significant impacts to the lake's water quality. Modeling shows that Lake Merced water levels are predicted to be lowered to below 1 foot City Datum for 73 to 76 percent of the simulation period due to project-related pumping, compared to 4 percent predicted under the modeled existing conditions. If water levels were reduced to this extent, more of the lake bed would be exposed; making it susceptible to erosion and associated sedimentation of the lake, and the four individual lakes would separate hydraulically. Further, Impound Lake could be entirely dewatered if lake levels were to drop below -6 feet City Datum. This scenario could occur briefly at the end of the hypothetical design drought, and lake levels are also predicted to approach or exceed this level during the dry years 4 through 16 in the simulated period. Groundwater inflows to the lake are also predicted to be reduced relative to the modeled existing conditions. Reduced water levels and groundwater flows into the lake could increase

eutrophication because nutrients discharged to the lake would be concentrated in a smaller lake volume. Also, with a smaller volume, the lake would likely mix more frequently, and, as a result (based on the patterns described above), would likely experience an increase in time-averaged dissolved oxygen levels in the hypolimnion. Because the project is predicted to cause Lake Merced water levels to fall below 0 feet City Datum substantially more frequently than is predicted to occur under modeled existing conditions, the resulting water quality changes under the project could cause exceedences of water quality objectives in the San Francisco Bay Basin Plan related to warm and cold freshwater habitat (e.g., dissolved oxygen), which in turn could affect associated beneficial uses. Changes in dissolved oxygen levels and pH could also exacerbate the conditions responsible for Lake Merced's listing as an impaired water body. These changes affecting water quality would be a potentially significant impact.

To address these potential effects on water quality, the SFPUC will implement Mitigation Measure M-HY-9, Lake Level Management for Lake Merced, which requires the SFPUC to implement lake level management procedures to maintain Lake Merced at water levels similar to conditions that are predicted to occur without the project. Specifically, the measure requires the SFPUC to implement the proposed project in a stepwise manner, starting at 1 mgd, to monitor for adverse effects before pumping at the full operational rate and to use lake-level management procedures to maintain Lake Merced at a specified water level. By starting groundwater production at the reduced rate, any adverse effects on Lake Merced water levels would be minimized while sufficient monitoring data are collected to assess the potential effects of project-related pumping on lake levels. Mitigation Measure M-HY-9 also incorporates trigger levels to avoid impacts on wetlands as well as water quality as a result of a project-related decline in lake levels. The trigger levels specified in the mitigation measure depend on what the naturally occurring lake level would be without the effects from project-related pumping and the corresponding allowable range in lake levels necessary to avoid impacts on both water quality and wetlands. At most naturally occurring lake levels above 0 feet City Datum, there would be some allowable decline in lake levels as a result of project-related pumping, but no allowable decline at a naturally occurring lake level of 0 feet City Datum or less.

In accordance with Mitigation Measure M-HY-9, corrective action is required if project-related lake levels decline below trigger levels. The corrective actions to be implemented in accordance with the mitigation measure would include adding supplemental water (either SFPUC system water, treated stormwater, or recycled water), if available, and/or altering or redistributing pumping patterns. Implementation of this measure would ensure that any lake-level decline resulting from the project would be temporary, lasting only until corrective actions could be implemented. With the addition of supplemental water and/or the alteration or redistribution of pumping patterns as needed, the project would not result in long-term degradation of water quality at Lake Merced.

The SFPUC has estimated that it could require up to approximately 190 acre-feet per year (afy) of water to maintain Lake Merced water levels under the project in accordance with Mitigation Measure M-HY-9 and evaluated the feasibility of providing potential supplemental water sources to supplement lake levels. The SFPUC could proceed with lake augmentation and management with stormwater diversions or could provide up to 1,000 afy of recycled water during the low-irrigation season (roughly November to April). Surface water from SFPUC's regional water system may also be available when the demand on the system is less than 265 mgd, although the amount of water available would depend on the demand by wholesale and retail customers, and the total deliveries by the SFPUC would not exceed an annual average of 265

mgd. If these supplemental water sources were not available or sufficient to maintain Lake Merced water levels, the SFPUC would alter pumping patterns in place of providing a supplemental water source to maintain lake levels. This is achievable because the design capacity for each of the project wells ranges from 0.18 to 0.79 mgd over the planned pumping rate under the project which provides the flexibility to shift some of the pumping from one well to another and still maintain the total desired production rate under the project, provided that other adverse effects do not occur as a result of redistributing the pumping.

With implementation of these mitigation measures, the proposed project would not threaten Lake Merced water quality, and as such, the proposed project would consistent with Policy 5.3 of the Western Shoreline Area Plan.

9. The San Francisco Groundwater Supply Project is consistent with Planning Code Section 101.1(b) Priority Policies as follows:

   A. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced.
   The Project would have no adverse effect on neighborhood serving retail uses or opportunities for employment in or ownership of such businesses. The proposed project would diversify and increase the reliability of San Francisco's water supply. A reliable water supply is essential for the preservation and enhancement of the neighborhood-serving uses.

   B. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhood.
   The Project would have no adverse effect on the City's housing stock or on neighborhood character. The Lake Merced, Central Pump Station, South Windmill Replacement, and North Lake well facilities are not located in any residential or commercial neighborhoods, but are rather located at Lake Merced and within Golden Gate Park and would not affect housing or neighborhood character. As for the proposed well facilities at South Sunset and West Sunset playgrounds, the proposed designs would be compatible with the surrounding playground facility buildings in both scale and design, and would not affect the overall neighborhood character. The proposed project facilities at these sites have received approval from the Civic Design Review Committee of the San Francisco Arts Commission.

   C. That the City's supply of affordable housing be preserved and enhanced.
   The Project would preserve the City's supply of affordable housing by diversifying and increasing the reliability of the City's water supply.

   D. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.
   The Project would not result in commuter traffic impeding MUNI's transit service, overburdening the streets or altering current neighborhood parking. The proposed project would construct up to six well stations in the western half of San Francisco. Each well station would require one daily visit by an SFPUC staff person for maintenance purposes. As such, commuter traffic would not increase notably that would impede MUNI services or the streets.

E. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for residential employment and ownership in these sectors be enhanced.
The Project would not affect the existing economic base in this area. The proposed project would protect the diversity of retail and service uses already existing in the City by diversifying and increasing the reliability of the water supply.

F. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.
The proposed project would diversify and increase the reliability of San Francisco's water supply, which would improve the City's preparedness for an earthquake. The proposed project well stations would also serve as an emergency potable water supply after an earthquake. Moreover, the proposed project well stations would be designed and constructed to comply with applicable San Francisco Municipal Code standards to ensure public safety in the event of an earthquake.

G. That landmarks and historic buildings be preserved.
The proposed project would not affect designated landmarks or buildings. Golden Gate Park is a registered Historic District; however, the proposed project would not affect any landmarks or historic buildings within Golden Gate Park, or affect any contributors to the historic district. The project would construct a total of three well stations inside Golden Gate Park. One of the wells would be located next to the Central Pump Station, which is not a historic landmark or building, and the adjacent yard area is currently used as a wood waste storage and composting facility. The other two well facilities in Golden Gate Park would replace two existing well stations, neither of which are historic buildings as they were constructed in early 2000s.

H. That our parks and open space and their access to sunlight and vistas be protected from development.
The proposed project has been designed in coordination with the SFRPD. New well stations would be constructed at South Sunset and West Sunset playgrounds. Three wells stations would be constructed in Golden Gate Park, one new well located next to the Central Pump Station, and two wells that would renovate the existing wells at South Windmill Replacement and North Lake irrigation wells. The proposed well facilities would not be located on active play fields at South Sunset or West Sunset playgrounds, or in high visitor use areas in Golden Gate Park. The proposed project facility at the South Sunset Playground would include a room devoted exclusively to SFRPD storage for use in connection with the existing recreation uses. As the West Sunset Playground site, an area devoted to soils storage for use on the adjacent fields is proposed for use by the SFRPD.

Siting a well facility in the undeveloped forested area at the Central Pump Station well facility site would not substantially reduce Golden Gate Park recreation use areas, as this site is not highly used for recreation, and is adjacent to an existing, active irrigation pumping station and wood waste storage area. The site would include an approximately 798 square foot building with a resin-paved driveway and parking for worker site visits and maintenance. Therefore, the various recreational opportunities within the park would remain available during project construction activities and operations and would not be affected by completion of the proposed project.

The proposed Golden Gate Park wells would provide a backup irrigation supply and ornamental lake supply for Golden Gate Park, which would contribute to the upkeep of existing recreation areas in the park. For the reasons stated above, the proposed project would not affect public parks and open spaces operated and maintained by the SFRPD.

The proposed project would not affect the parks' access to vistas and sunlight. The Urban Design Element of the General Plan does not identify any scenic vistas near any of the proposed well facilities to be located within Golden Gate Park or on the Sunset District playgrounds.

The well facilities at West Sunset and South Sunset playgrounds would be located in out of the way spots and would not affect the vistas either from within or outside the playgrounds. The well buildings would be approximately 15 feet tall at those locations and would not block access to sunlight.

Within Golden Gate Park, the proposed project would not affect any significant vistas. The new well next to the Central Pump Station would be located in a wooded area. The well facility at North Lake would be immediately south of Fulton Street, and in another wooded area. The proposed project would demolish the current well building at North Lake and replace it with another similar utilitarian structure. The South Windmill Replacement well facility would also be a renovation of an existing well facility. The South Windmill Replacement site is in the western end of the Park and is in an area that is currently used to store logs, and contains stockpiles of soil, concrete blocks and other debris, and therefore does not represent a scenic vista. Because two of the wells in Golden Gate Park would be replacement wells, no new shade would be created. The well station at Central Pump Station would be in an existing wooded, shady area, and therefore, would also not create additional shade.

10. The Commission hereby finds that approval of the Coastal Permit would promote the health, safety and welfare of the City.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **APPROVES Coastal Zone Permit Application No. 2008.1122P** in general conformance with plans on file and stamped "EXHIBIT B", which is incorporated herein by reference as though fully set forth**.**

APPEAL: Pursuant to Planning Code Sections 308.2 and 330.9, any aggrieved person may appeal this Coastal Zone Permit to the Board of Appeals within ten (10) days after the date of this motion. For further information, please contact the Board of Appeals in person at 1650 Mission Street, 3rd Floor (Room 304) or call 575-6880.

I hereby certify that the Planning Commission ADOPTED the foregoing Motion on December 19, 2013.

Jonas P. Ionin
Commission Secretary

AYES:

NAYES:

ABSENT:

ADOPTED: December 19, 2013

EXHIBIT A
SAN FRANCISCO GROUNDWATER SUPPLY PROJECT (CASE NO. 2008.1122E) – MITIGATION MONITORING AND REPORTING PROGRAM

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
CULTURAL RESOURCES						
CP-2a	The proposed project would potentially cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5	**M-CP-2a: Accidental Discovery of Archeological Resources.** The following measures shall be implemented should construction activities result in the accidental discovery of a cultural resource: Construction activities will immediately be suspended within 50 feet of the find if there is any indication of a potential archeological resource. To avoid the potential for adverse effects on accidentally discovered buried or submerged historical resources, as defined in CEQA Guidelines Section 15064.5(a), the SFPUC shall distribute the Planning Department's archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor firms (including demolition, excavation, grading, foundation, pile driving, etc.); and/or to utilities firms involved in soil-disturbing activities within the project site. Prior to undertaking any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, supervisory personnel, etc. The SFPUC shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel have received copies of the ALERT sheet. If the ERO determines that an archeological resource may be present within the project site, the SFPUC shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource that retains sufficient integrity and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource and make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require specific additional measures to be implemented by the SFPUC. Measures could include: in-situ preservation of the archeological resource; an archeological monitoring program; or an archeological evaluation program. The ERO might also require that the SFPUC immediately implement a site security program if an archeological resource is at risk from vandalism, looting, or other damaging actions. If an archeological resource is discovered, the archeological consultant shall submit an Archeological Data Recovery Report (ADRR) to the ERO which, in addition to the usual ADRR contents, will evaluate the historical significance of any discovered archeological resource, as well as describe the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken, and present, analyze, and interpret the recovered data. 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 ADRR shall be distributed as follows: the relevant California Historical Resources Information System Information Center shall receive one copy, and the ERO shall receive a copy of the transmittal letter of the ADRR to the Information Center. The San Francisco Planning Department, Environmental Planning section shall receive three copies of the ADRR along with copies of any formal site recordation forms (DPR 523 series) and/or documentation for nomination to the National Register /California Register. The SFPUC shall receive copies of the ADRR in the number requested. In instances of high public interest in or high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.	1. SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC CMB/BEM (Archeologist) 4. SFPUC CMB/BEM (Archeologist)	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM 4. SFPUC BEM and ERO	1. Ensure that the contract documents include measures related to archeological discoveries. 2. Ensure that all project personnel receive "Alert" sheet. Maintain file of affidavits for submittal to ERO. Monitor to ensure that the contractor implements measures in the contract documents, report noncompliance, and ensure corrective action. 3. Ensure that all potential discoveries are reported as required and that the contractor suspends work in the vicinity. Mobilize an archeologist to the area if the ERO determines that an archeological resource may be present. 4. In the event of a potential discovery, evaluate the potential discovery and advise ERO as to the significance of the discovery. Proceed with recommendations, evaluations, and implementation of additional measures in consultation with ERO. Prepare and distribute Final ADRR as required.	1. Design 2. Preconstruction and Construction 3. Construction 4. Construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
CULTURAL RESOURCES (cont.)						
CP-2b	Construction of the proposed Lake Merced well facility would potentially cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5.	**M-CP-2b:** Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried historical resources. 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 testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program 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). ***Consultation with Descendant Communities.*** On discovery of an archeological site associated with descendant Native Americans or the Overseas Chinese, an appropriate representative of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to consult with ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group. ***Archeological Testing Program.*** The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA. At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, 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, archeological monitoring, and/or an archeological data recovery program. If the ERO determines that a significant archeological resource is present and that the resource 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 significant archeological resource; or B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.	1. SFPUC BEM (Archeologist) 2. SFPUC BEM (Archeologist) 3. SFPUC BEM (Archeologist) 4. SFPUC CMB/BEM 5. SFPUC BEM (Archeologist)	1. SFPUC BEM / ERO 2. SFPUC BEM/ERO 3. SFPUC BEM/ERO 4. SFPUC BEM/ERO 5. SFPUC BEM/ERO	1. Prepare and implement an Archeological Testing Plan in conjunction with SFPUC/ERO. Prepare written report of findings. 2. If significant archeological resources are present, prepare Archeological Data Recovery Plan and implement data recovery investigation and/or other treatment including consultation with descendant communities. 3. As determined by Archeological consultant in consultation with SFPUC/ERO, prepare and implement an Archeological Monitoring Program. Document activities in monitoring logs. 4. Monitor to ensure that contractor implements applicable measures in contract documents. Report noncompliance, and ensure corrective action. 5. Prepare Final Archeological Resources Report (FARR) to document historical significance of any discovered archeological resource.	1. Preconstruction/ Construction 2. Preconstruction/ Construction 3. Construction 4. Construction 5. Post-construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
CULTURAL RESOURCES (cont.)						
CP-2b (cont.)		***Archeological Monitoring Program.*** If the ERO in consultation with the archeological consultant determines that an archeological monitoring program (AMP) shall be implemented, the archeological monitoring program 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. 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 archeological resources 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 an archeological resource; • 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 significant archeological deposits; • The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis; • If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO. Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO. ***Archeological Data Recovery Program.*** The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (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.				

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
CULTURAL RESOURCES (cont.)						
CP-2b (cont.)		• *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 archeological data recovery program. • *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 Archeological Site Survey Northwest Information Center (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 (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 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.				
CP-4	The proposed project would potentially disturb human remains, including those interred outside of formal cemeteries.	**M-CP-4: Accidental Discovery of Human Remains.** The following measures shall be implemented should construction activities result in the accidental discovery of 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 shall include immediate notification of the coroner of the county within which the project is located and, 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 archeological 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."	1. SFPUC EMB 2. SFPUC CMB/BEM (Archeologist) 3. SFPUC CMB/BEM)	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM and ERO	1. Ensure that Contract Documents include measures related to discovery of human remains. 2. If potential human remains are encountered, mobilize an archeologist to confirm existence of human remains. If human remains are confirmed, perform required coordination and notifications. 3. Monitor to ensure that the contractor implements measures in contract documents including insuring that all potential human remains are reported as required and that contractor suspends work in the vicinity. Report noncompliance and ensure corrective action.	1. Design 2. Construction 3. Construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
NOISE						
NO-1	The proposed project would result in the exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	**M-NO-1: Administrative and Source Controls.** The SFPUC shall ensure that a noise control plan is prepared, reviewed, and approved by SFPUC, and is prepared and implemented by a qualified noise consultant, defined as a board-certified Institute of Noise Control Engineering member or other qualified consultant or engineer approved by the project engineer. The SFPUC shall verify that the noise control plan contains at least the following elements: • *Daytime:* Construction noise levels shall not exceed the San Francisco Noise Ordinance daytime threshold of 80 dBA at 100 feet (or 86 dBA at 50 feet) at all locations between 7 a.m. to 8 p.m. at all residential receptors (except where construction activities occur for two weeks or less at one location). The noise control plan shall identify sensitive receptor locations and include measures that could be employed to maintain noise levels at or below these performance standards, which could include, but not be limited, the following: • Implement best available noise control techniques such as mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds. • Limit continuous operation of heavy equipment near sensitive receptors. • Locate stationary noise sources (e.g., generators, fans, pumps) as far from sensitive receptors as possible and use noise controls (e.g., enclosures, barriers) as necessary. • The name and phone number of a SFPUC designated project liaison shall be posted at project facility construction sites so that the public can contact the liaison if noise disturbance occurs. This liaison shall immediately take steps to resolve any complaints received, including modifying construction practices as necessary to address the noise complaint.	1. SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC Communications 4. SFPUC CMB/BEM	1. SFPUC BEM 2 SFPUC BEM 3. SFPUC BEM 4. SFPUC BEM	1. Incorporate appropriate language into contract documents including requirement for contractor(s) to prepare noise control plan. 2. Ensure that the noise control plan is prepared in accordance with the contract documents. 3. Designate project liaison responsible for responding to noise complaints. Ensure that liaison's name and phone number is included on posted notices. As necessary, develop a reporting program for tracking complaints received and for documenting their resolution. 4. Monitor to ensure that the contractor(s) implements noise control requirements, report noncompliance, and ensure corrective action within timelines specified in contract.	1. Design 2. Preconstruction 3. Preconstruction and Construction 4. Construction
UTILITIES AND SERVICE SYSTEMS						
UT-3	Project construction would potentially result in a substantial adverse effect related to disruption of utility operations or accidental damage to existing utilities.	**M-UT-3a: Preconstruction Utility Identification and Coordination.** Prior to construction activities, the SFPUC or its contractor(s) shall 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 State law, the SFPUC or its contractor(s) shall 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 SFPUC or its contractor(s) shall notify all affected utility service providers in advance of the project construction plans and schedule. The SFPUC or its contractor(s) shall make arrangements with these entities regarding the protection, relocation, or temporary disconnection of services prior to the start of construction, and prompt reconnection of services, as required.	1.SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Coordinate final construction plans and specifications during the design phase including obtaining, as necessary, agreements and/or permits. Ensure that the contract documents include the requirement for contractor(s) to coordinate with utility service providers. 2. Monitor to ensure that contractor implements measures in the contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction
		M-UT-3b: Protection of Other Utilities during Construction. Specifications shall be prepared as part of the design plans. These specifications shall 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) shall coordinate with SFMTA and appropriate telecommunication service providers to de-energize overhead electric lines as required by the federal and State Occupational Safety and Health Administration (OSHA) regulations.	1. SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Ensure that contract documents include applicable measures for protection of utilities during construction, including requirement for contractor to coordinate with affected utility owners and protect affected utilities, as appropriate. 2. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
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UTILITIES AND SERVICE SYSTEMS (cont.)						
UT-3 (cont.)		**M-UT-3c: Safeguard Employees from Potential Accidents Related to Underground Utilities.** While any excavation is open, the SFPUC or its contractors shall protect, support, or remove underground utilities as necessary to safeguard employees. As part of contractor specifications, the contractor(s) shall be required to provide updates on excavations planned for the upcoming week and to specify when construction will occur near a high-priority utility. At the beginning of each week when this work will take place, per California OSHA, the contractor is required to hold safety tailgate meetings and to document contents of meeting. The SFPUC is not required to attend these contractor tailgate meetings, but may attend.	1. SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Coordinate final construction plans and specifications during the design phase including obtaining, as necessary, agreements and/or permits. Ensure that the contract documents include the requirement for contractor(s) to coordinate with utility service providers and to provide SFPUC with advance schedule notification. 2. Monitor to ensure that contractor(s) implements measures in the contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction
		M-UT-3d: Notify San Francisco Fire Department. If construction activities result in damage to high-priority utility lines the SFPUC or its contractor(s) shall immediately notify the San Francisco Fire Department to protect worker and public safety.	1. SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Ensure that contract documents include applicable measures, including requirement for contractor(s) to provide SFPUC with advance schedule notification. 2. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction
		M-UT-3e: Emergency Response Plan and Notification. The SFPUC or its contractor(s) shall develop an emergency response plan prior to commencing construction activities. The emergency response plan shall 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) shall notify the appropriate emergency response department whenever damage to any utility results in a threat to public safety.	1. SFPUC EMB 2. SFPUC CMB 3. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB 3. SFPUC CMB	1. Ensure that contract documents include applicable measures including requirement to prepare emergency response plan (ERP). 2. Ensure that contractor prepares the ERP. 3. Monitor to ensure that contractor(s) implements measures in contract documents and emergency response plan, and notifies local fire department in the event of damage to a gas utility line that results in a leak or suspected leak or damage to another utility line that could result in a threat to public safety. Report noncompliance, and ensure corrective action.	1. Design 2. Prior to commencing any excavation activities. 3. Construction
		M-UT-3f: Ensure Prompt Reconnection of Utilities. The SFPUC or its contractor(s) shall promptly notify utility providers to reconnect any disconnected utility lines as soon as it is safe to do so.	1. SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Coordinate final construction plans and specifications during the design phase including obtaining, as necessary, agreements and/or permits. Ensure that the contract documents include the requirement for contractor(s) to coordinate with utility service providers. 2. Monitor to ensure that contractor implements measures in the contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
UTILITIES AND SERVICE SYSTEMS (cont.)						
UT-3 (cont.)		**M-UT-3g: Coordinate Final Construction Plans with Affected Utilities.** The SFPUC or its contractor(s) shall coordinate final construction plans and specifications with affected utilities.	1. SFPUC EMB 2. SFPUC CMB	1. SFPUC BEM 2. SFPUC CMB	1. Coordinate final construction plans and specifications during the design phase including obtaining, as necessary, agreements and/or permits. Ensure that the contract documents include the requirement for contractor(s) to coordinate with utility service providers. 2. Monitor to ensure that contractor(s) implements measures in the contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction
BIOLOGICAL RESOURCES						
BI-1	Construction of the proposed project would potentially adversely affect species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.	**M-BI-1a: Avoidance and Minimization Measures for California Red-Legged Frog and Western Pond Turtle.** During construction at the Lake Merced, North Lake, and Central Pump Station well facility sites, 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, western pond turtles, and incidental, common wildlife 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 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 excluded 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 frogs or turtles are found, the SFPUC shall halt construction and contact the USFWS and/or CDFW for instructions on how to proceed. Construction shall resume after approval from the USFWS and/or CDFW. • 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.	1. SFPUC EMB 2. SFPUC CMB/BEM (Biologist) 3 SFPUC CMB/BEM (Biologist) 4. SFPUC CMB/BEM	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM 4. SFPUC BEM	1. Ensure that contract documents include applicable avoidance and minimization measures for California red-legged frog, western pond turtles, and incidental, common wildlife, including requirement for exclusion fencings. 2. Develop worker training program and ensure that all construction personnel participate in the environmental training prior to beginning work at the job site(s). Require workers to sign the training program sign-in sheet. Maintain file of training sign-in sheets. 3. Obtain and review résumé or other documentation of consulting biologist's qualifications. Conduct preconstruction surveys, species relocation (if appropriate and approved by CDFW and/or USFWS), and monitoring, including weekly fence inspection. Document activities in monitoring logs. 4. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Preconstruction and Construction 3. Preconstruction and Construction 4. Construction

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
BIOLOGICAL RESOURCES (cont.)						
		M-BI-1b: Avoidance and Minimization Measures for Special-Status Bats. A qualified wildlife biologist shall conduct preconstruction special-status bat surveys when large trees are to be removed, or when occasionally used or vacant buildings are to be demolished. If active day or night roosts are found, the wildlife biologist shall take actions to make such roosts unsuitable habitat prior to tree removal or building demolition. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. Bat roosts initiated during construction are presumed to be unaffected, and no buffer would necessary.	1. SFPUC EMB 2. SFPUC CMB/BEM (Qualified Biologist) 3. SFPUC CMB/BEM	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Ensure that contract documents include applicable avoidance and minimization measures. 2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct pre-construction survey. If roosts are found, implement appropriate measures. Document activities in monitoring logs. 3. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Preconstruction and Construction 3. Construction
		M-BI-1c: Avoidance and Minimization Measures for Monarch Butterfly. Construction activities in and around potential butterfly overwintering sites shall occur outside of the overwintering season (October to March), to the greatest extent feasible, to avoid potential impacts on monarch butterfly at the Golden Gate Park sites. However, when it is not feasible to avoid the overwintering season and construction activities take place during this time, the following measures shall apply: • Preconstruction surveys shall be conducted for overwintering monarch butterfly sites within 100 feet of the construction areas. • If an active overwintering site is located, work activities shall be delayed within 100 feet of the site location until avoidance measures have been implemented. Appropriate avoidance measures shall include the following measures (which may be modified as a result of consultation with the CDFW to provide equally effective measures): - If the qualified wildlife biologist determines that construction activities shall not affect an active overwintering site, activities may proceed without restriction. - A no-disturbance buffer may be established around the overwintering site to avoid disturbance or destruction until after the overwintering. - The extent of the no-disturbance buffers shall be determined by a qualified wildlife biologist in consultation with the CDFW.	1. SFPUC EMB 2. SFPUC CMB/BEM (Qualified Biologist) 3. SFPUC CMB/BEM	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Ensure that contract documents include applicable avoidance and minimization measures. 2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct pre-construction survey. If overwintering site is located, implement appropriate measures. Document activities in monitoring logs. 3. Monitor to ensure that contractor(s) implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Preconstruction and Construction 3. Construction
BI-3	Construction of the proposed project would conflict with applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**M-BI-3: Plant Replacement Trees.** The SFPUC shall replace the trees removed within SFRPD-managed lands with trees of equivalent ecological value (i.e., similar species) at a 1:1 ratio. If planting trees of equivalent ecological value at a 1:1 ratio is not feasible or such trees are not available, removed trees shall be replaced at a ratio of 1 inch for every 1 inch of the removed tree's diameter at breast height. If the project site does not have adequate room for replanting trees, the SFPUC shall coordinate with SFRPD to identify acceptable replanting locations in the vicinity of the project site. The SFPUC shall monitor tree replacement plantings annually for a minimum of three years after completion of construction to ensure the plantings have become established and, if necessary, shall replant to ensure the success of the replacement plantings.	1. SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC CMB/BEM (Qualified Biologist or Arborist)	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Ensure that contract documents include tree replacement measures. 2. Ensure that the contractor implements tree replacement measures in accordance with SFRPD coordination. 3. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance, and ensure corrective action.	1. Design 2. Construction 3. Post-Construction Monitoring (at least three years, depending on success)

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HYDROLOGY AND WATER QUALITY						
HY-1	Project construction would possibly violate water quality standards and waste discharge requirements or otherwise substantially degrade water quality.	**M-HY-1: Implement Groundwater Dewatering BMPs at Lake Merced Well Facility.** If groundwater produced during construction of the Lake Merced facility is not discharged to the sewer system, the SFPUC shall include a requirement in construction contracts that its construction contractor(s) develop and implement standard BMPs for the treatment of sediment-laden water produced during groundwater dewatering. BMPs could include discharging water through filtration media, such as filter bags or a similar filtration device, or allowing the filtered water to infiltrate into the soil. If infiltration is used, application of the groundwater shall be conducted at a rate and location that does not allow runoff into Lake Merced or drainage conveyances such as storm drains and does not cause flooding or runoff to adjacent properties. The discharge of groundwater shall also be conducted at a rate that does not allow ponding, unless the ponding is a result of implementing BMPs to reduce the velocity of the flow and occurs within constructed containment, such as an excavation or berm with no outlet. The discharge must also be applied at a sufficient distance from building foundations or other areas that could be damaged from ground settling or swelling. No chemicals shall be added to the discharged groundwater. Alternatively, rather than discharging groundwater, filtered groundwater could be used to spray disturbed areas and the soil stockpile to reduce fugitive dust emissions, if there is sufficient water and it is determined feasible by the construction contractor.	1.SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC CMB/BEM	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Incorporate appropriate language into contract documents including development of Dewatering Plan. 2. Review contractor's Dewatering Plan. 3. Monitor to ensure that the contractor implements measures in Dewatering Plan, report noncompliance, and ensure corrective action within timelines specified in contract.	1. Design 2. Preconstruction 3. Construction
HY-8	Project operations would possibly result in seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin.	**M-HY-8a: Expand Coastal Monitoring Network.** A minimum of one year prior to operating the South Windmill Replacement well, North Lake well, or Central Pump Station well facilities in Golden Gate Park, the SFPUC shall rehabilitate existing groundwater wells in the western portion of the park or install new groundwater monitoring wells between the Pacific Coast and the South Windmill Replacement well and North Lake well facilities. The SFPUC expects that existing wells NL-1 and SF-1, which are screened similarly to the North Lake irrigation well, can be rehabilitated, and wells SWM-3 and NWM-3 may also be able to be rehabilitated, if found. If the wells cannot be rehabilitated, the SFPUC shall coordinate with the SFRPD and install new wells in the same approximate location in areas of Golden Gate Park that are not highly used by the public and are currently developed/disturbed or are substantially devoid of vegetation in order to minimize the effects of installation. These monitoring wells shall be located a maximum of 100 feet inland to provide a coastal monitoring location in both the Shallow Aquifer and Primary Production Aquifer for the detection of seawater intrusion. These wells shall be included in the coastal groundwater monitoring network and monitored as part of the SFPUC's ongoing monitoring program for the detection of seawater intrusion. To establish a baseline of groundwater quality, these wells (which have not been previously monitored as part of the SFPUC's groundwater monitoring program) shall be monitored on a quarterly basis for a minimum of one year prior to operation of the South Windmill Replacement well, North Lake well, and Central Pump Station well facilities. For each monitoring event, a groundwater sample from each well shall be analyzed for the same parameters as are measured under the existing groundwater monitoring program (chloride, TDS, and specific conductance).	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise	1. Locate and rehabilitate existing monitoring wells. Ensure that new wells are installed if existing wells cannot be found or rehabilitated. 2. Monitor groundwater quality.	1. Design and construction 2. Construction, minimum of 1 year prior to operation of Golden Gate Park well(s).
		M-HY-8b: Continuous Groundwater Monitoring in the Primary Production Aquifer. The SFPUC shall install pressure transducers in coastal monitoring wells Kirkham MW-255, Kirkham MW-385, Ortega MW-265, Ortega MW-400, Taraval MW-240, Taraval MW-400, and San Francisco Zoo MW-450, which are completed in the Primary Production Aquifer, and shall conduct continuous groundwater-level monitoring in these monitoring wells. These groundwater levels shall be monitored as part of the ongoing monitoring program for the detection of seawater intrusion.	1. SFPUC Water Enterprise	1. SFPUC Water Enterprise	1. Install transducers and conduct continuous groundwater-level monitoring.	1. Project operation

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HYDROLOGY AND WATER QUALITY (cont.)						
HY-8 (cont.)		**Mitigation Measure M-HY-8c: Adaptive Management Program for Seawater Intrusion.** The SFPUC shall implement the Groundwater Supply Project in a stepwise manner, conduct monitoring to detect seawater intrusion, and alter pumping to prevent seawater intrusion from advancing to the coastal monitoring network in accordance with the process described below and shown in Figure MMRP-1. Prior to beginning full operation of the proposed project, the SFPUC shall begin pumping at a reduced rate and continue monitoring the expanded coastal monitoring network (including the new wells added under Mitigation Measure M-HY-8a) for evidence of seawater intrusion according to the following procedure: • At initial startup, the project wells shall be operated at a maximum combined capacity of 1 mgd. • The SFPUC shall continue semiannual groundwater quality monitoring of the coastal network (including the new wells added under Mitigation Measure M-HY-8a) in accordance with the ongoing monitoring program as revised by Mitigation Measure M-HY-8b. • After one year of monitoring, the SFPUC may increase annual pumping by 1 mgd each year, up to a total of 3 mgd during Phase 1 of the project and 4 mgd during Phase 2 if none of the chloride concentrations detected in the coastal monitoring network equals or exceeds 142 mg/L. If this limit is not met, semiannual groundwater quality monitoring of the coastal network shall continue. • In the event that the chloride concentration in any of the coastal monitoring wells equals or exceeds 142 mg/L, the SFPUC shall increase the coastal groundwater quality monitoring frequency to quarterly. • If there is an upward trend in chloride levels after three quarterly monitoring periods such that projected chloride levels could reach the secondary MCL of 250 mg/L in three years (based on a trend analysis using the most recent three quarters of groundwater sampling), the SFPUC shall either temporarily redistribute pumping to decrease pumping rates closest to the affected monitoring well, or decrease the overall pumping rate. • However, if the SFPUC can demonstrate to the satisfaction of the San Francisco Planning Department Environmental Review Officer, with independent 3rd party concurrence, that the upward trend is not due to the project, the SFPUC may continue pumping subject to the requirements of this mitigation measure. • Pumping may continue at the adjusted production rate and pattern as long as none the coastal monitoring wells exhibit chloride concentrations that are projected to reach 250 mg/L within three years (based on a trend analysis using the most recent three quarters of groundwater sampling). • The total annual pumping rate may be increased by 1 mgd (up to a maximum of 3 mgd during Phase 1 of the project and 4 mgd during Phase 2) after 21 months of quarterly monitoring indicate that none of the chloride concentrations at the coastal monitoring locations are projected to reach 250 mg/L within the next three years. • If the chloride concentration reaches 250 mg/L at any of the coastal monitoring points, the SFPUC shall stop pumping at the nearest project well, and stop all groundwater pumping if necessary to prevent seawater intrusion from progressing further. Pumping shall not be resumed until chloride concentrations at the affected well have been below 142 mg/L for one year based on quarterly monitoring. • The monitoring frequency may be reduced to semiannual once the chloride concentration in an affected well decreases to 142 mg/L or lower for one year based on quarterly monitoring. Mitigation Measures M-HY-8a through M-HY-8c could be incorporated into the SFPUC's North Westside Basin Groundwater Management Plan. The Groundwater Management Plan would be submitted to the Planning Department prior to the operation of the San Francisco Groundwater Supply Project for review of consistency with the mitigation requirements for this project.	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise 4. SFPUC Water Enterprise	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise, SFPUC BEM and ERO 4. SFPUC Water Enterprise, SFPUC BEM and ERO	1. Begin groundwater pumping at a maximum combined capacity of 1 mgd, and monitor groundwater quality. 2. Increase pumping capacity if chloride concentration thresholds are not exceeded, and continue monitoring groundwater quality. 3. Redistribute, reduce, or stop pumping if chloride concentration thresholds are exceeded, and continue monitoring groundwater quality. 4. Submit North Westside Basin Groundwater Basin Management Plan to Planning Department.	1. Project operation 2. Project operation 3. Project operation 4. Project Operation

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HYDROLOGY AND WATER QUALITY (cont.)						
HY-9	The proposed project would possibly have a substantial, adverse effect on water quality that could affect the beneficial uses of Lake Merced.	**Mitigation Measure M-HY-9: Lake-Level Management for Lake Merced.** The SFPUC shall implement a lake level management program in accordance with the process described below and shown in Figure MMRP-2. The program requires SFPUC to implement the Groundwater Supply Project in a stepwise manner; conduct monitoring to detect changes in lake level and water quality as well as groundwater-level elevations, and shall respond to project-related changes. Lake levels may be augmented by adding supplemental water (SFPUC system water, treated stormwater, or recycled water), if available. The SFPUC may also alter or redistribute pumping as necessary to avoid adverse effects on Lake Merced in the event a supplemental water source is not available or is insufficient to restore lake levels. Implementation of this measure shall be coordinated with the SFPUC's ongoing Lake Merced lake-level, lake water quality, and groundwater monitoring programs to document and maintain the database of these parameters throughout project operations. Prior to beginning full operation of the Groundwater Supply Project, the SFPUC shall begin pumping at a reduced rate and continue lake-level and groundwater monitoring for the purpose of detecting adverse effects on Lake Merced according to the following procedure: • At initial startup, the wells shall be operated at a maximum combined capacity of 1 mgd. • The SFPUC shall continue to maintain Lake-Level Model so as to be able to evaluate what lake levels would be without implementation of the project based on the actual hydrologic conditions that occurs during project implementation. The SFPUC shall use the model to determine the amount of lake-level decreases that are attributable to the project rather than to hydrologic or other factors, and: - If lake levels are projected to be within the range that would occur without the project, based on maintenance of the Lake-Level Model, then no project impact is indicated and no corrective action shall be required. - If project-related lake levels are projected to be below the range that would occur without the project, the allowable deviation from naturally occurring lake levels is dependent on what the naturally occurring lake levels would be without the project. Corrective action shall be implemented if the trigger levels identified in Table MMRP-1 are projected to be exceeded. • If after one year of monitoring, lake levels are above the trigger levels specified in Table MMRP-1, the SFPUC may increase pumping by 1 mgd per year, up to a total of 3 mgd during Phase 1, and up to a total of 4 mgd after Phase 2 is implemented. • If project-related lake levels are projected to be below the range that would occur without the project, the allowable deviation from naturally occurring lake levels that would prevent significant wetlands and water quality impacts from occurring is dependent on what the naturally occurring lake levels would be without the project. Corrective action shall be implemented if the trigger levels identified in the final column of Table MMRP-1 and shown on Figure MMRP-3 are projected to be exceeded, compared to water levels that would occur without the project. • If, after one year of monitoring, lake levels drop below the trigger levels specified in Table MMRP-1, and groundwater monitoring in combination with the Lake-Level Model results indicates that the decline is due to project-related pumping, the SFPUC shall augment lake levels by adding supplemental water of suitable quality (such as surplus potable water that is dechloraminated at the Lake Merced Pump Station, stormwater from the Vista Grande Canal, recycled water, or stormwater diverted from other development in the Lake Merced watershed) if available, to maintain lake levels at the specified trigger level based on Lake-Level modeling. At the end of the subsequent year of monitoring, the SFPUC may increase pumping by 1 mgd (up to a total of 3 mgd	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise 4. SFPUC Water Enterprise	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise 4. SFPUC Water Enterprise, SFPUC BEM and ERO	1. Begin groundwater pumping at a maximum combined capacity of 1 mgd, and monitor groundwater and lake levels. 2. Increase pumping capacity if lake level triggers are not exceeded, and continue monitoring groundwater and lake levels. 3. Redistribute, reduce, or stop pumping if chloride concentration lake level triggers are exceeded, and continue monitoring groundwater and lake levels. 4. Submit North Westside Basin Groundwater Basin Management Plan to Planning Department.	1. Project operation 2. Project operation 3. Project operation 4. Project operation

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HYDROLOGY AND WATER QUALITY (cont.)						
HY-9 (cont.)		during Phase 1 and up to 4 mgd after Phase 2 is implemented) if water levels can be maintained at the above-specified trigger levels. The SFPUC shall continue lake-level and groundwater monitoring, lake water-quality monitoring, and maintenance of the Lake-Level Model, and if warranted based on monitoring data and model results, continue supplemental water additions. The rate of surplus water additions shall be controlled such that water surface elevation increases are no greater than 0.5 feet over a 2.5-week period in any single nesting season (conservatively March 1 through August 15) and no greater than 3 feet in any given year to avoid impacts to nesting birds and western pond turtle. • If a supplemental water source is not available or is insufficient to maintain lake levels above the trigger levels specified in Table MMRP-1, implement other corrective actions such as redistributing pumping to reduce or eliminate groundwater withdrawals near Lake Merced or decreasing the overall pumping rate to maintain lake levels at or above the specified trigger levels. The SFPUC shall continue lake-level and groundwater-level monitoring, Lake Merced water quality monitoring, and maintenance of the Lake-Level Model to determine the effectiveness of the corrective measures such that lake levels shall be maintained at the above-specified trigger levels. As shown in Figure MMRP-2, the SFPUC shall continue to monitor lake levels and shall continue supplemental water additions or redistribution/reduction of groundwater pumping to maintain Lake Merced water levels at the above-specified trigger levels. Mitigation Measure M-HY-9 could be incorporated into the SFPUC's North Westside Basin Groundwater Management Plan. The Groundwater Management Plan would be submitted to the Planning Department prior to the operation of the San Francisco Groundwater Supply Project for review of consistency with the mitigation requirements for this project.				
HY-11	Project operation would possibly cause a violation of water quality standards.	**M-HY-11: Prepare a Source Water Protection Program and Update Drinking Water Source Assessment.** Because the DWSAP reports for each proposed well facility identified potentially contaminating activities with a vulnerability score of 8 or higher, the SFPUC shall develop and implement a source water protection program including the following components to be implemented to prevent contamination of the well facility: • Integration with the Westside Basin Groundwater Monitoring Program to identify changes in water quality that would warrant further study and response. • Continued cooperation with the San Francisco Department of Public Health in that department's implementation of the existing well construction and well destruction permit program. The goal of protecting and preserving groundwater quality requires that all wells be properly constructed and maintained during their operational lives, and properly destroyed after their useful lives. • Continued cooperation with the San Francisco Department of Public Health in that department's management of cases in the North Westside Basin where spills or leaks of chemicals (e.g., leaking underground fuel tanks) could threaten groundwater quality to ensure that the responsible party adequately investigates and cleans up any contamination that could threaten drinking water quality. • Continued cooperation with the SFPUC Wastewater Enterprise's Urban Watershed Management Program in the implementation of guidelines to maintain appropriate buffers between low impact development stormwater facilities and drinking water well facilities. • Continued coordination with the San Francisco Planning Department to ensure SFPUC review of and comment on CEQA planning documents for proposed projects in the North Westside Groundwater Basin to ensure that groundwater quality would not be degraded as a result of project implementation.	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise	1. SFPUC Water Enterprise 2. SFPUC Water Enterprise 3. SFPUC Water Enterprise, SFPUC BEM and ERO	1. Develop source water protection program in accordance with Mitigation Measure M-HY-11. 2. Implement source water protection program in accordance with Mitigation Measure M-HY-11. 3. Submit North Westside Basin Groundwater Basin Management Plan to Planning Department.	1. Construction, prior to project operation 2. Project operation 3. Project operation

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HYDROLOGY AND WATER QUALITY (cont.)						
HY-11 (cont.)		The source water protection program shall specify that in the event that potential contamination is identified, the SFPUC shall increase the monitoring frequency at the potentially affected well, investigate the potential source of contamination, coordinate with the San Francisco Department of Public Health or RWQCB to require responsible parties to address identified sources of contamination, and shut down the affected well or provide additional treatment for the groundwater if contamination of the drinking water supply cannot otherwise be avoided. In addition, the SFPUC shall update the drinking water source assessment for each well facility every five years to review existing and planned land uses as well as to identify potentially contaminating activities, as required by the California Department of Public Health, and revise monitoring requirements, if necessary to address additional potentially contaminating activities. The SFPUC shall encourage public participation in the development of the source water protection program and shall update the program every five years along with the drinking water source assessments for each project well, to prevent contamination that could cause an exceedance of drinking water MCLs at the project wells. Mitigation Measure M-HY-11 could be incorporated into the SFPUC's North Westside Basin Groundwater Management Plan. The Groundwater Management Plan would be submitted to the Planning Department prior to the operation of the San Francisco Groundwater Supply Project for review of consistency with the mitigation requirements for this project.				
HAZARDS AND HAZARDOUS MATERIALS						
HZ-2	Project construction would possibly result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials present in soil and groundwater.	**M-HZ-2a: Preconstruction Hazardous Materials Assessment.** Within three months prior to construction, the SFPUC shall retain a qualified environmental professional to conduct a regulatory agency database review to update and identify hazardous materials sites within ¼ mile of the project sites and to review appropriate standard information sources to determine the potential for soil or groundwater contamination at the project sites. Should this review indicate a high likelihood of encountering contamination at the project sites, follow-up sampling shall be conducted to characterize soil and groundwater quality prior to construction to provide necessary data for the site health and safety plan (Mitigation Measure M-HZ-2b) and hazardous materials management plan (Mitigation Measure M-HZ-2c). If needed, site investigations or remedial activities shall be performed at the project site in accordance with applicable laws.	1. SFPUC CMB/BEM (environmental professional)	1. SFPUC BEM	1. Update environmental database within 3 months of start of construction and perform follow-up analysis as required in this measure. Document findings in a report or technical memo to SFPUC.	1. Preconstruction
		M-HZ-2b: Health and Safety Plan. The construction contractor shall, prior to construction, prepare a site-specific health and safety plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal-OSHA regulations (8 CCR Title 8, Section 5192) to address worker health and safety issues during construction. The health and safety plan shall identify the potentially present chemicals, health and safety hazards associated with those chemicals, all required measures to protect construction workers and the general public from exposure to harmful levels of any chemicals identified at the site (including engineering controls, monitoring, and security measures to prevent unauthorized entry to the work area), appropriate personal protective equipment, and emergency response procedures. The health and safety plan shall designate qualified individuals responsible for implementing the plan and for directing subsequent procedures in the event that unanticipated contamination is encountered. The plan shall include requirements for management of soil on the east side of the North Lake Pump Station (near boring SB-4), from the ground surface to a depth of about 0.5 feet, that contains elevated levels of lead: shallow soil in this area shall be excavated and temporarily stockpiled for additional testing to determine offsite disposal requirements. Alternatively, affected soil shall be isolated beneath building foundations or pavement areas during construction, pending approval from the San Francisco Department of Public Health.	1. SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC CMB/	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Ensure that contract documents include the requirement for preparing a health and safety plan. 2. Ensure that contractor(s) prepares and submits a health and safety plan and verify that it includes information cited in contract documents. 3. Monitor to ensure that the contractor(s) implements measures in the contract documents and health and safety plan. Report noncompliance, and ensure corrective action.	1. Design 2. Construction 3. Construction

ATTACHMENT B (continued)
SAN FRANCISCO GROUNDWATER SUPPLY PROJECT (CASE NO. 2008.1122E) – MITIGATION MONITORING AND REPORTING PROGRAM

Impact No.	Impact Summary	Mitigation Measure	Monitoring and Reporting Program			
			Implementation and Reporting		Monitoring and Reporting Actions	Implementation Schedule
			Responsible Party	Reviewing and Approval Party		
HAZARDS AND HAZARDOUS MATERIALS (cont.)						
HZ-2 (cont.)		**M-HZ-2c: Hazardous Materials Management Plan.** The contractor shall, prior to construction, prepare a hazardous materials management plan that specifies the method for handling and disposal of contaminated soil and building debris, should any be encountered during construction. Contract specifications shall mandate full compliance with all applicable local, State, and federal regulations related to identifying, transporting, and disposing of hazardous materials, including those encountered in excavated soil, and demolition debris. The contractor shall provide the SFPUC with copies of hazardous waste manifests documenting that disposal of all hazardous materials has been performed in accordance with the law.	1. SFPUC EMB 2. SFPUC CMB/BEM 3. SFPUC CMB/	1. SFPUC BEM 2. SFPUC BEM 3. SFPUC BEM	1. Ensure that contract documents include requirements for preparing a hazardous materials management plan. 2. Ensure that contractor(s) prepares and submits a hazardous materials management plan and verify that it complies with requirements cited in contract documents. 3. Monitor to ensure that the contractor(s) implements measures in the contract documents and hazardous materials management plan. Report noncompliance, and ensure corrective action.	1. Design 2. Construction 3. Construction

DPW Engineering = Department of Public Works (CCSF)
BEM = Bureau of Environmental Management (SFPUC)
EP = San Francisco Planning Department, Environmental Planning Division (CCSF)
SFPUC = San Francisco Public Utilities Commission (CCSF)
ERO = Environmental review officer (CCSF – EP)

CCSF = City and County of San Francisco
EMB = Engineering Management Bureau (SFPUC)
CMB = Construction Management Bureau (SFPUC)

INSERT figure MMRP-1a
Flow Chart for Seawater Intrusion Mitigation

INSERT figure MMRP-1b
Flow Chart for Seawater Intrusion Mitigation

INSERT figure MMRP-2
Flow Chart for Lake Merced Mitigation

INSERT figure MMRP-3
Lake Merced Water Surface Elevation Range for Avoidance of Significant Surface Water Interaction Effects

TABLE MMRP-1
LAKE MERCED WATER SURFACE ELEVATION RANGE FOR AVOIDANCE OF SIGNIFICANT SURFACE WATER INTERACTION EFFECTS[a]

Water Surface Elevation Without the Project (feet City Datum)	Corresponding Allowable Project-Related Water Surface Elevation Range (feet City Datum)			Allowable Increment of Change as a Result of Project	Trigger Level for Additional Actions (feet City Datum)
	Wetlands	Water Quality	Combined Range[b]		
13	13 to -10	0 to 13	0 to 13	Up to 13 feet of decline	0
12	4 to 12	0 to 12	4 to 12	Up to 8 feet of decline	4
11	9 to 11	0 to 11	9 to 11	Up to 2 feet of decline	9
10	9 to 10	0 to 10	9 to 10	Up to 1 foot of decline	9
9	8 to 9	0 to 9	8 to 9	Up to 1 foot of decline	8
8	7 to 8	0 to 8	7 to 8	Up to 1 foot of decline	7
7	4 to 7	0 to 7	4 to 7	Up to 3 feet of decline	4
6	5 to 6	0 to 6	5 to 6	Up to 1 foot of decline	5
5	4 to 5; -6 to -10	0 to 5	4 to 5	Up to 1 foot of decline	4
4	3 to 4; -5 to -10	0 to 4	3 to 4	Up to 1 foot of decline	3
3	2 to 3; -5 to -10	0 to 3	2 to 3	Up to 1 foot of decline	2
2	1 to 2; -4 to -10	0 to 2	1 to 2	Up to 1 foot of decline	1
1	0 to 1; -3 to -10	0 to 1	1	Up to 1 foot of decline	0
0	0 to -10	0	0	No decline permitted	0
-1	-1 to -10	-1	-1	No decline permitted	-1
-2	-2 to -10	-2	-2	No decline permitted	-2
-3	-3 to -10	-3	-3	No decline permitted	-3
-4	-4 to -10	-4	-4	No decline permitted	-4
-5	-5 to -10	-5	-5	No decline permitted	-5
-6	-6 to -10	-6	-6	No decline permitted	-6
-7	-7 to -10	-7	-7	No decline permitted	-7
-8	-8 to -10	-8	-8	No decline permitted	-8
-9	-9 to -10	-9	-9	No decline permitted	-9
-10	-10	-10	-10	No change; lake would be dewatered as a result of climatic conditions	-10

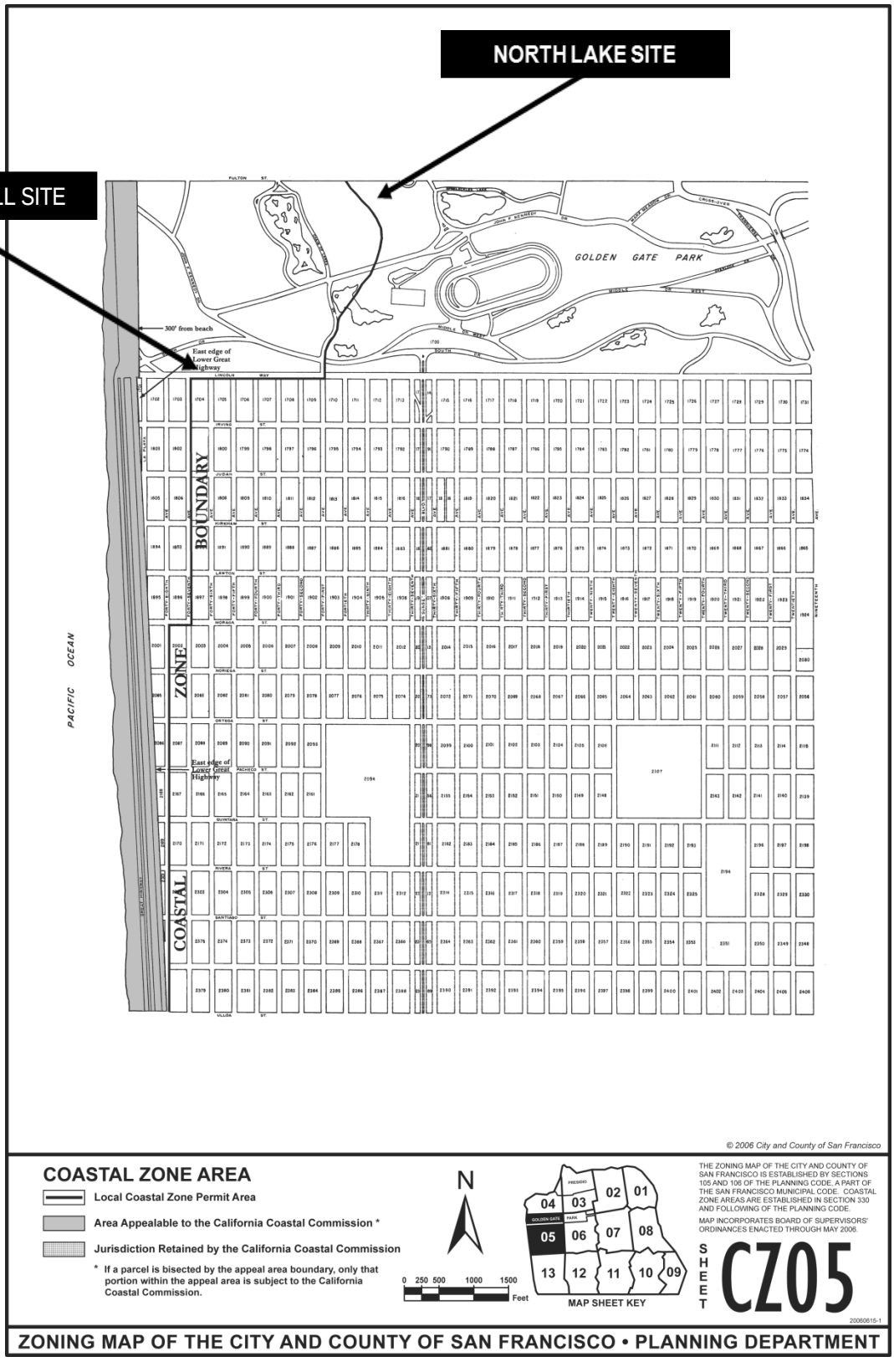
[a] The water surface elevation values represent the mean annual water surface elevation. Lake Merced water levels vary seasonally due to hydrologic and climatic conditions; therefore, an annual range in water surface elevation from about 1 foot above and below the mean is assumed; for example, an elevation of 6 feet City Datum, as seen in the table, actually represents a range in water surface elevation between of 5 and 7 feet City Datum.

[b] The combined range is the maximum and minimum mean annual water surface elevation that would avoid net loss of wetlands and substantial adverse effects on water quality.

SOURCE: ESA (wetlands information derived from San Francisco Groundwater Supply Project EIR, Appendix C tables)

Exhibits

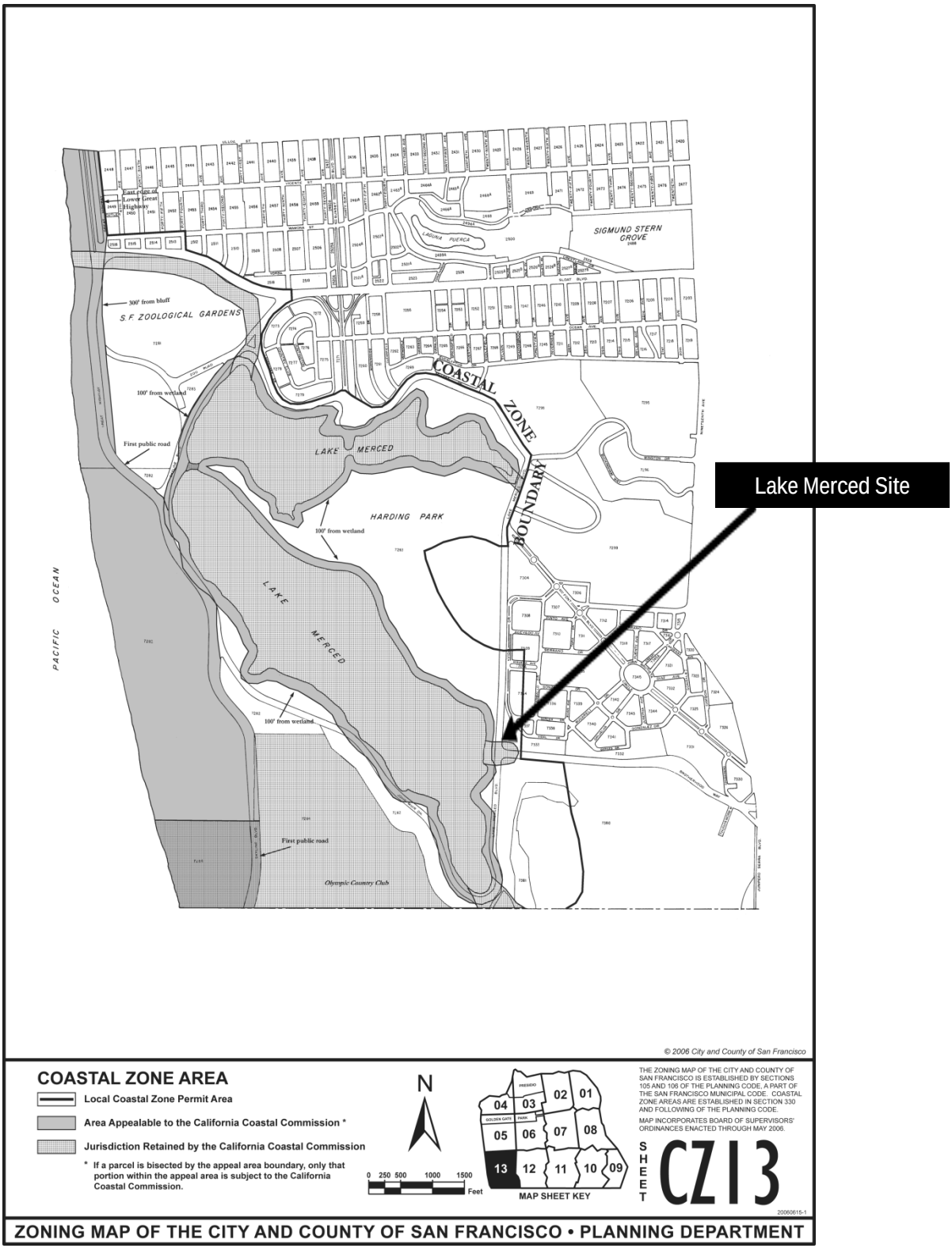
Coastal Zone Map



Coastal Zone Aurhorization
Case Number 2008.1122EPR
PUC Groundwater Supply Project

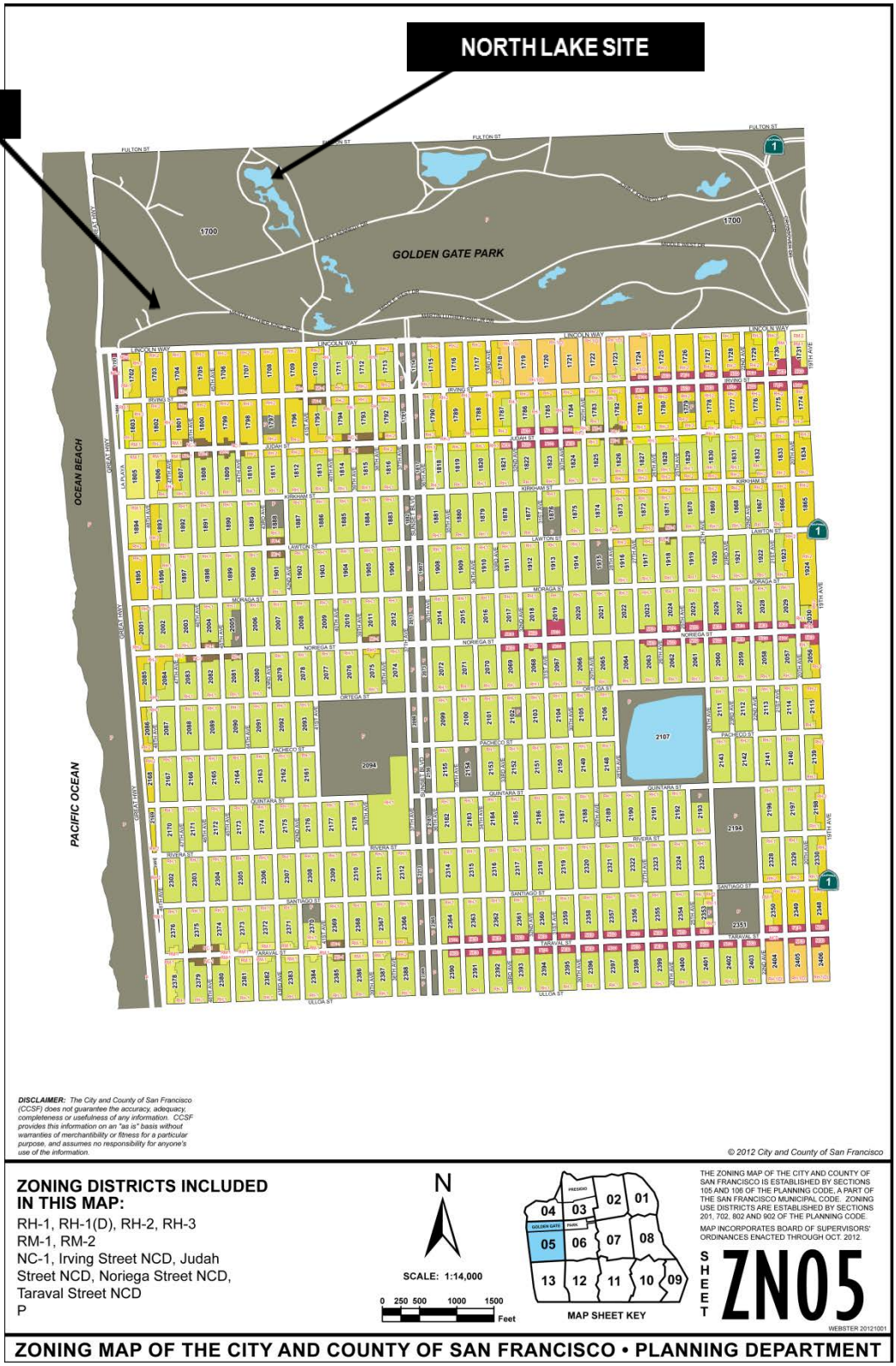
SAN FRANCISCO
PLANNING DEPARTMENT

Coastal Zone Map



Coastal Zone Aurhorization
Case Number 2008.1122EPR
PUC Groundwater Supply Project

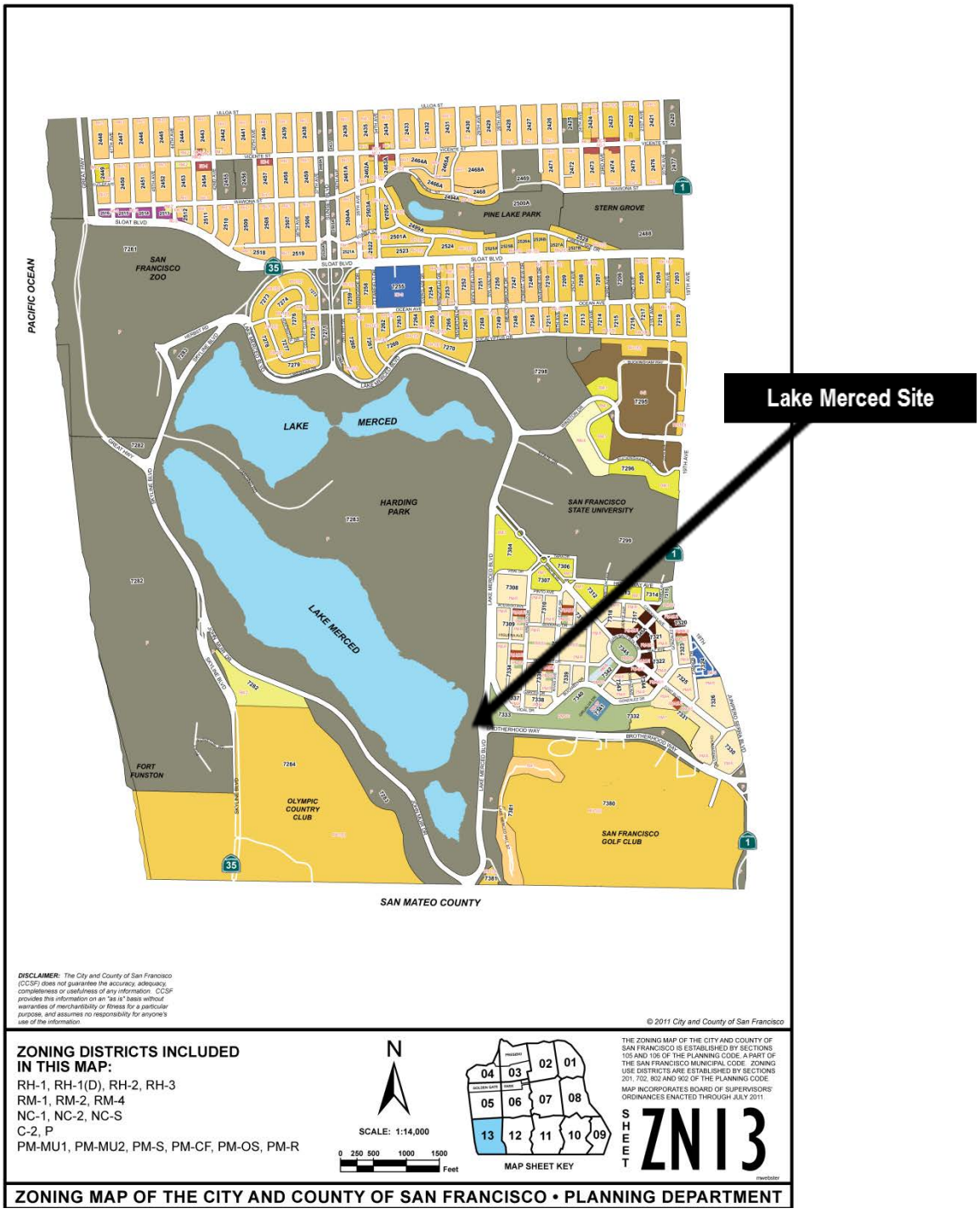
Zoning Map



Coastal Zone Aurhorization
Case Number 2008.1122EPR
PUC Groundwater Supply Project

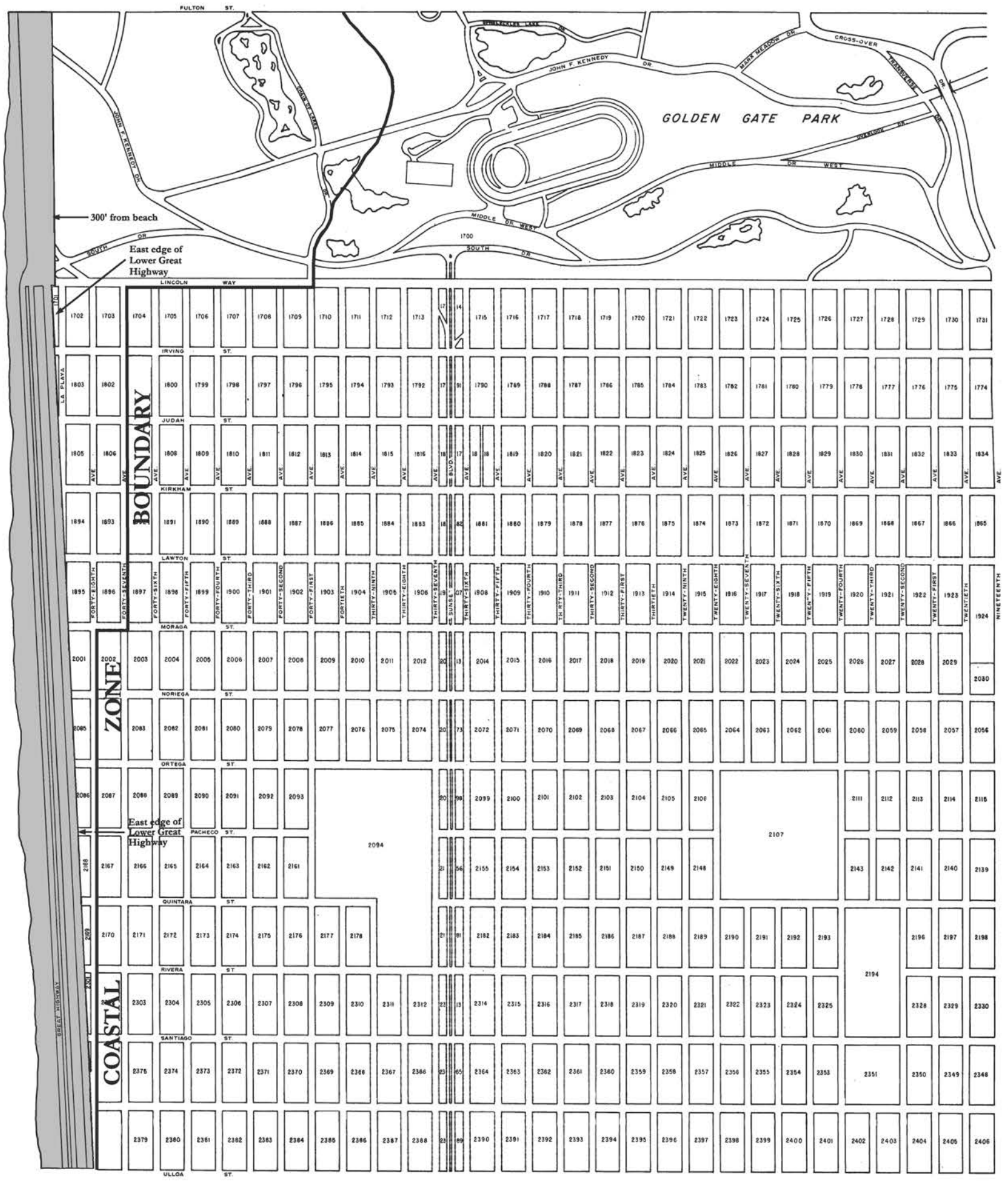
SAN FRANCISCO
PLANNING DEPARTMENT

Zoning Map



Coastal Zone Aurhorization
Case Number 2008.1122EPR
PUC Groundwater Supply Project

SAN FRANCISCO
PLANNING DEPARTMENT



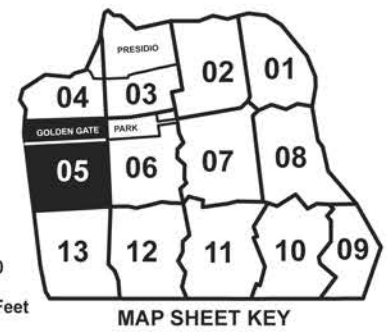
COASTAL ZONE AREA

- Local Coastal Zone Permit Area
- Area Appealable to the California Coastal Commission *
- Jurisdiction Retained by the California Coastal Commission

* If a parcel is bisected by the appeal area boundary, only that portion within the appeal area is subject to the California Coastal Commission.

N

0 250 500 1000 1500 Feet



MAP SHEET KEY

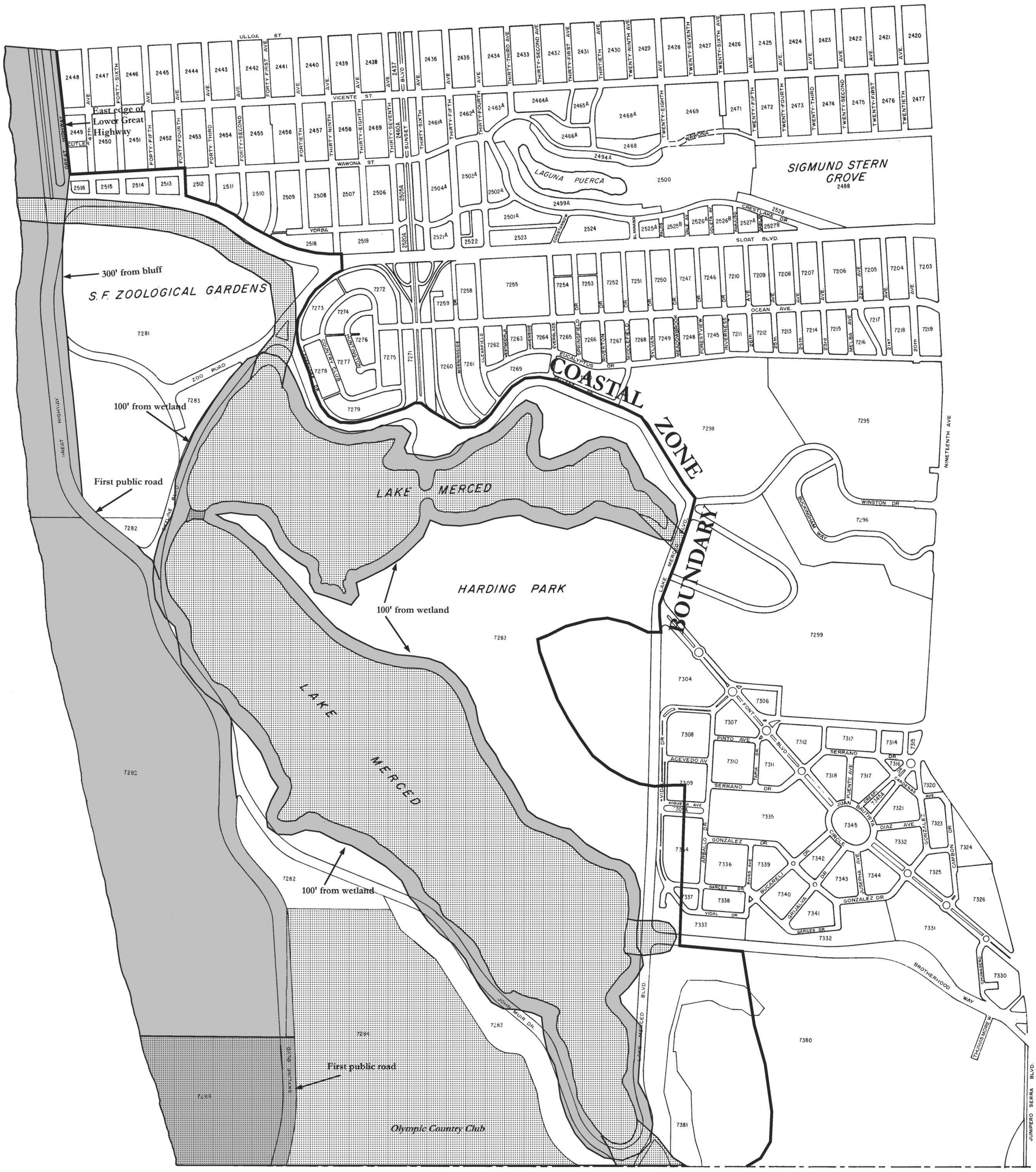
THE ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO IS ESTABLISHED BY SECTIONS 105 AND 106 OF THE PLANNING CODE, A PART OF THE SAN FRANCISCO MUNICIPAL CODE. COASTAL ZONE AREAS ARE ESTABLISHED IN SECTION 330 AND FOLLOWING OF THE PLANNING CODE.

MAP INCORPORATES BOARD OF SUPERVISORS' ORDINANCES ENACTED THROUGH MAY 2006.

SHEET **CZ05**

20060615-1

ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO • PLANNING DEPARTMENT



COASTAL ZONE AREA

Local Coastal Zone Permit Area

Area Appealable to the California Coastal Commission *

Jurisdiction Retained by the California Coastal Commission

* If a parcel is bisected by the appeal area boundary, only that portion within the appeal area is subject to the California Coastal Commission.

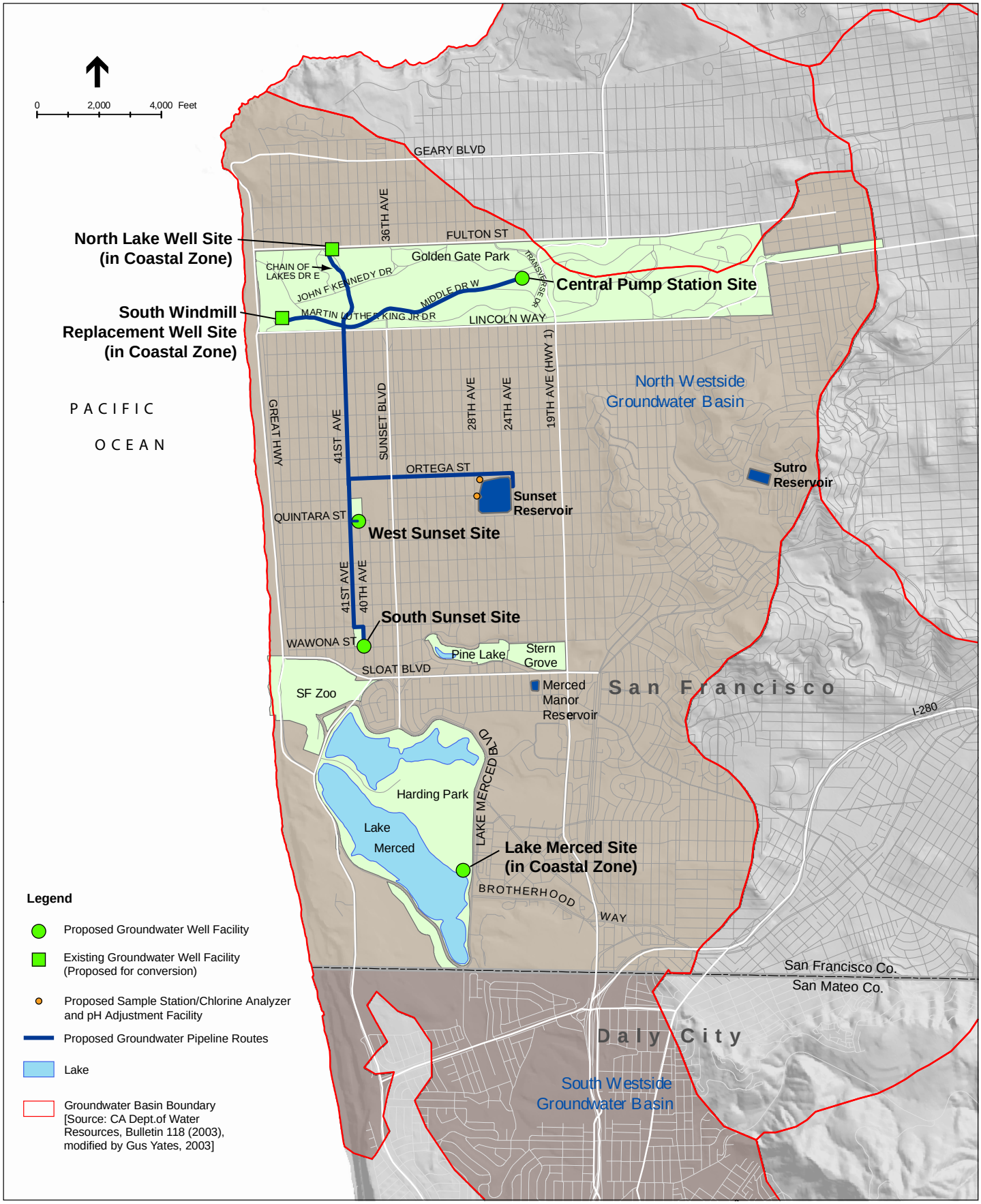
THE ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO IS ESTABLISHED BY SECTIONS 105 AND 106 OF THE PLANNING CODE, A PART OF THE SAN FRANCISCO MUNICIPAL CODE. COASTAL ZONE AREAS ARE ESTABLISHED IN SECTION 330 AND FOLLOWING OF THE PLANNING CODE.

MAP INCORPORATES BOARD OF SUPERVISORS' ORDINANCES ENACTED THROUGH MAY 2006.

SHEET **CZ13**

20060615-1

ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO • PLANNING DEPARTMENT



SOURCE: SFPUC, 2009; 2010

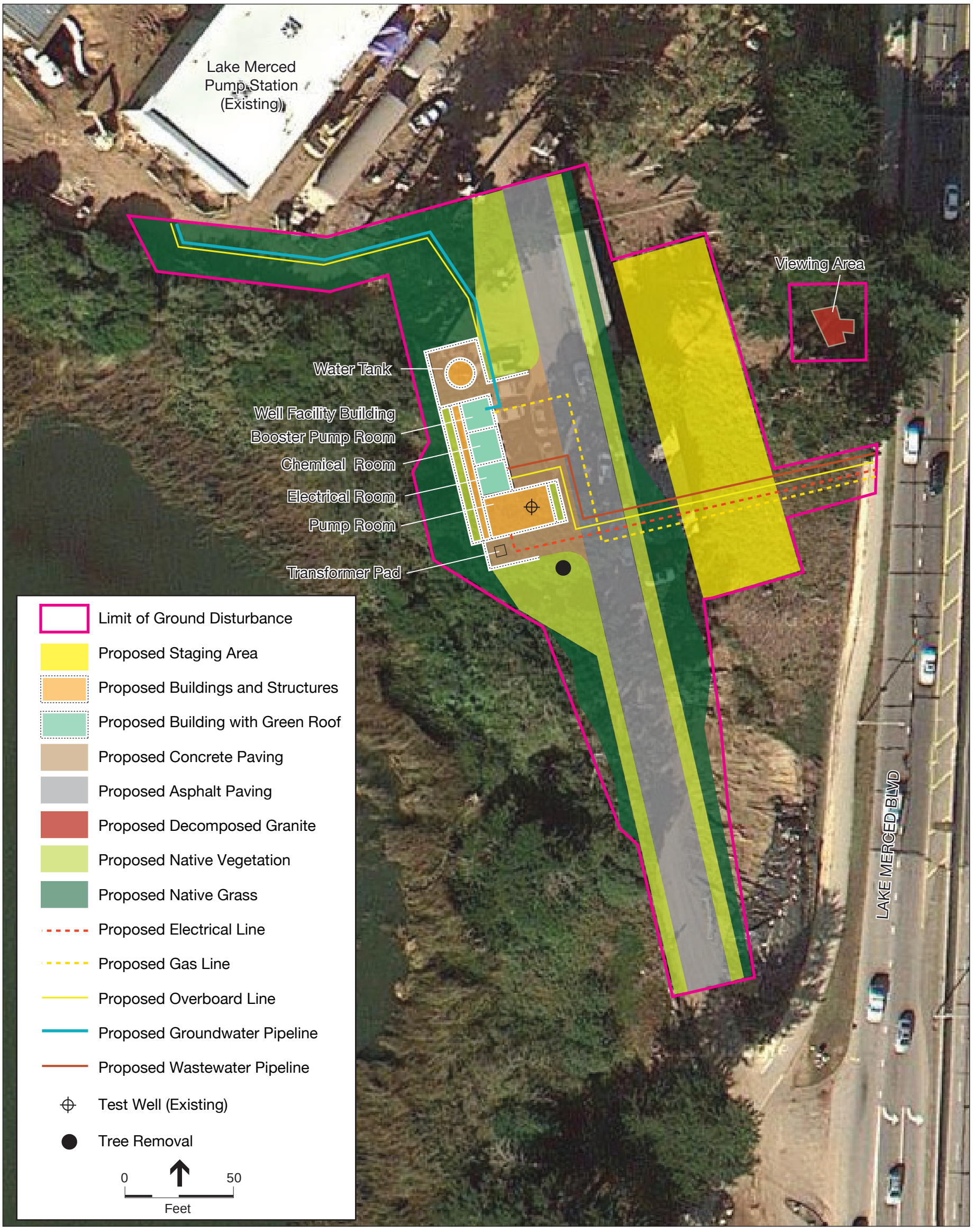
Case No. 2008.1122P: Local Coastal Permit

Figure 1
Project Location

Case No. 2008.1122P: Local Coastal Permit

SOURCE: SFPUC, 2010; ESA

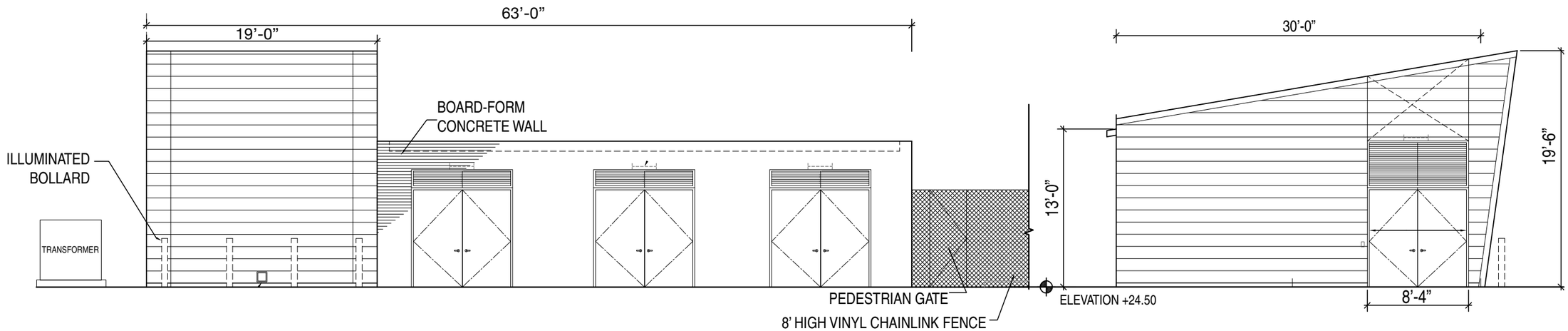
Figure 2
Lake Merced Well Facility Construction Area



Case No. 2008.1122P: Local Coastal Permit

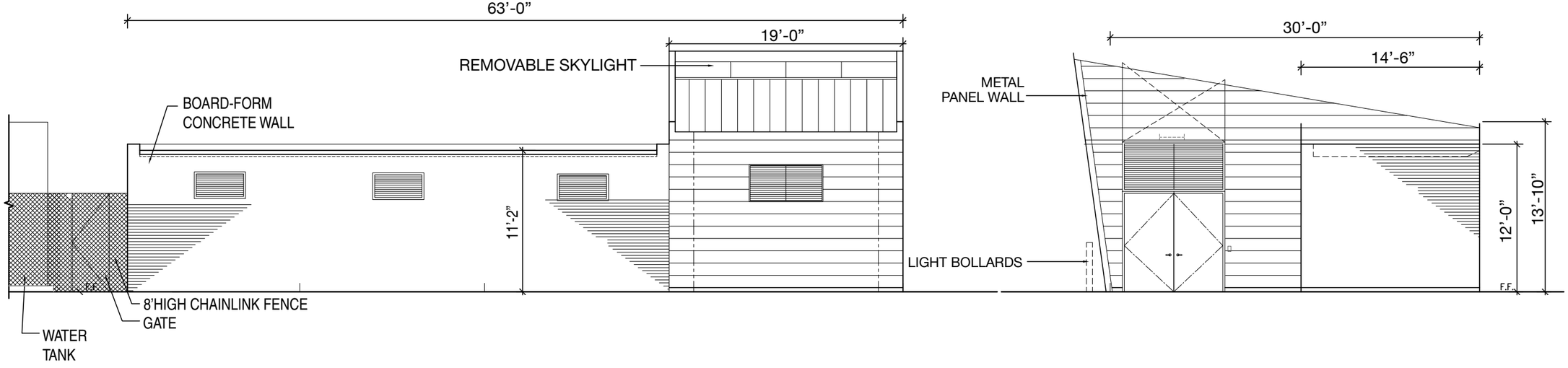
SOURCE: SFPUC, 2010; ESA

Figure 3
Lake Merced Well Facility - Proposed Project Components and Construction Area



EAST ELEVATION

SOUTH ELEVATION



WEST ELEVATION

NORTH ELEVATION

SOURCE: SFPUC, 2010; ESA

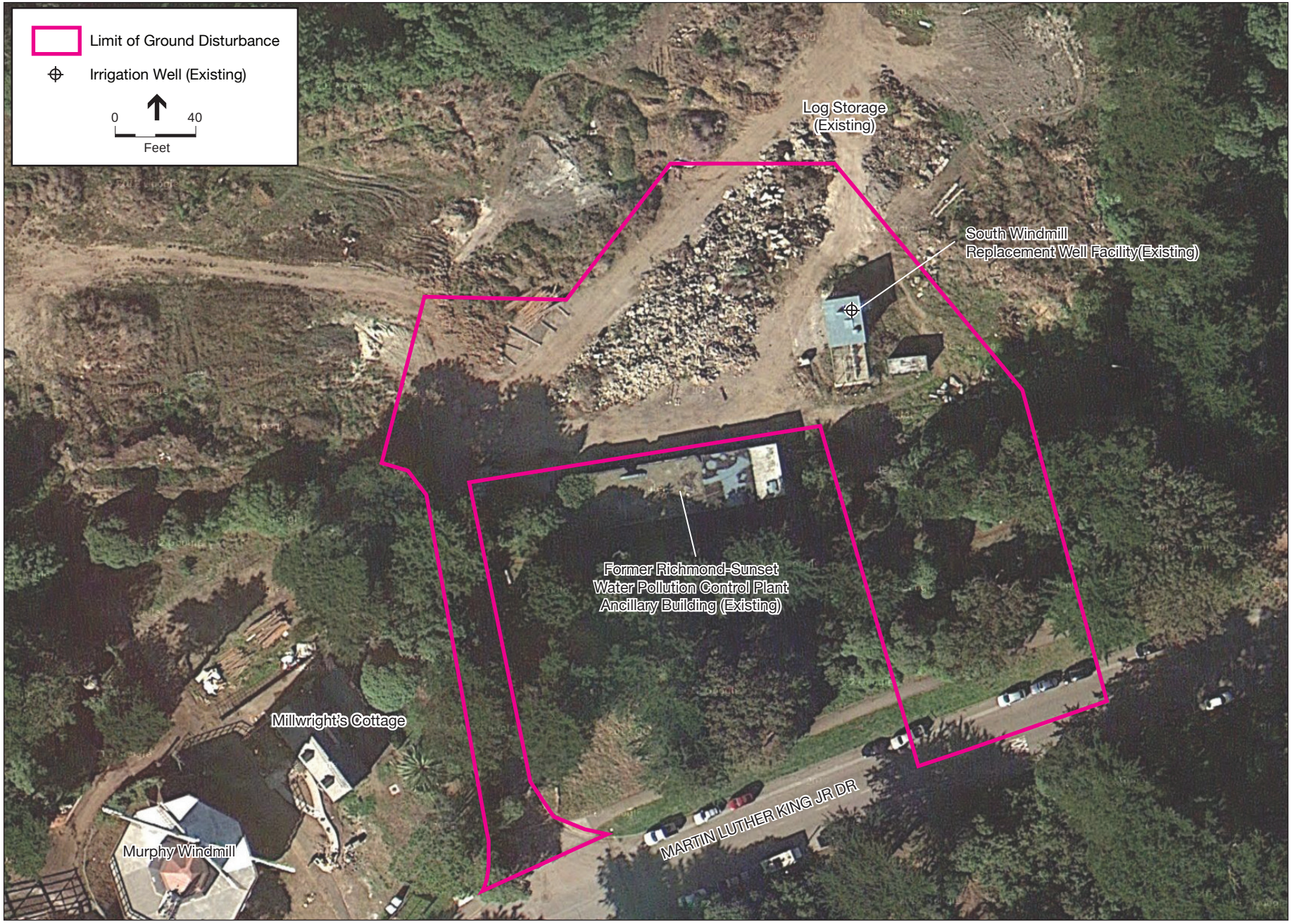
Case No. 2008.1122P: Local Coastal Permit

Figure 4
Lake Merced Well Facility -
Proposed Building Elevations

Case No. 2008.1122P: Local Coastal Permit

SOURCE: SFPUC, 2010

Figure 5
Rendering of Lake Merced Well Facility

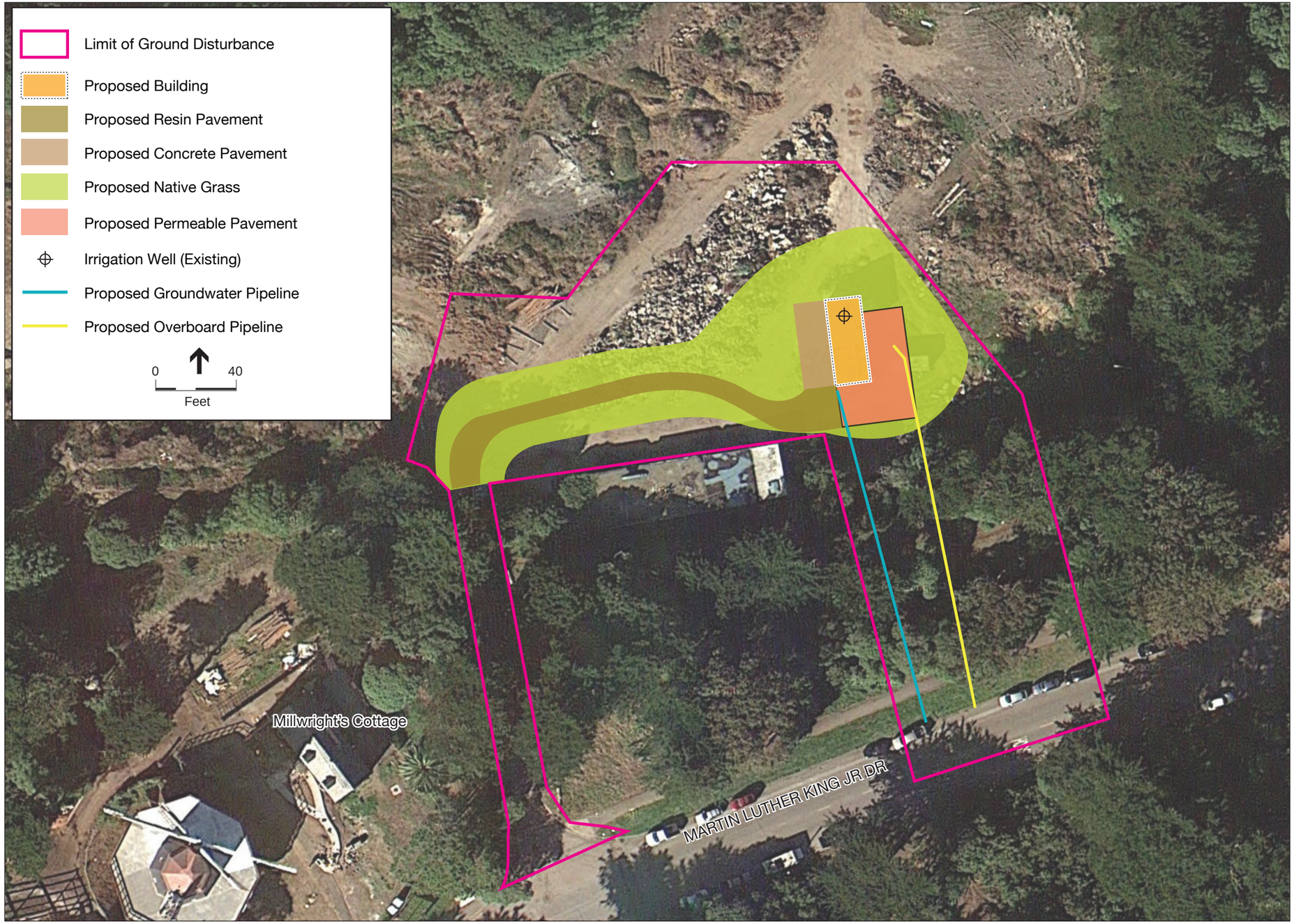


SOURCE: SFPUC, 2010; ESA

Case No. 2008.1122P: Local Coastal Permit

Figure 6

South Windmill Replacement Well Facility Construction Area

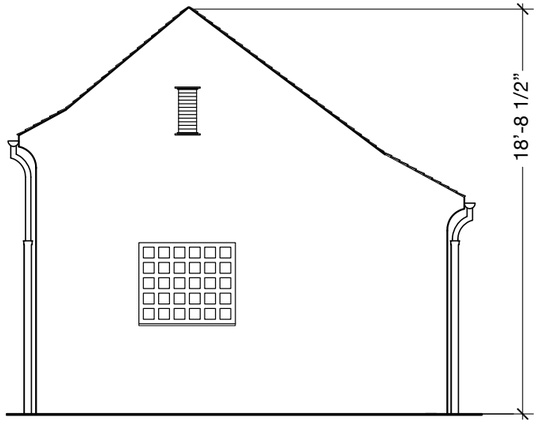


SOURCE: SFPUC, 2010; ESA

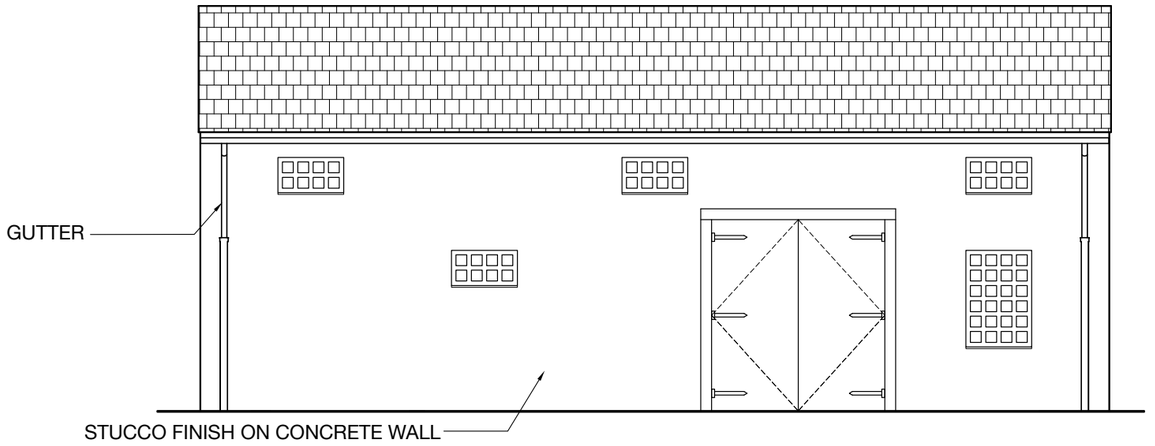
Case No. 2008.1122P: Local Coastal Permit

Figure 7

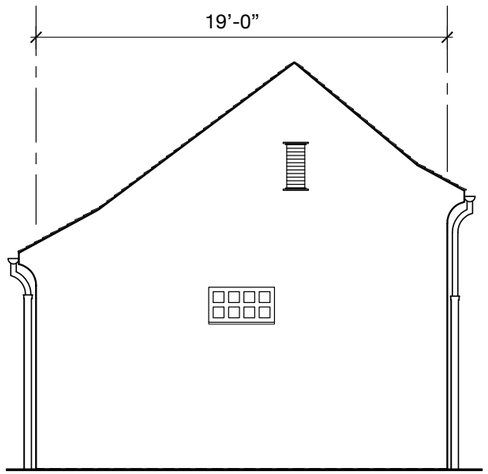
South Windmill Replacement Well Facility -
Proposed Project Components and Construction Area



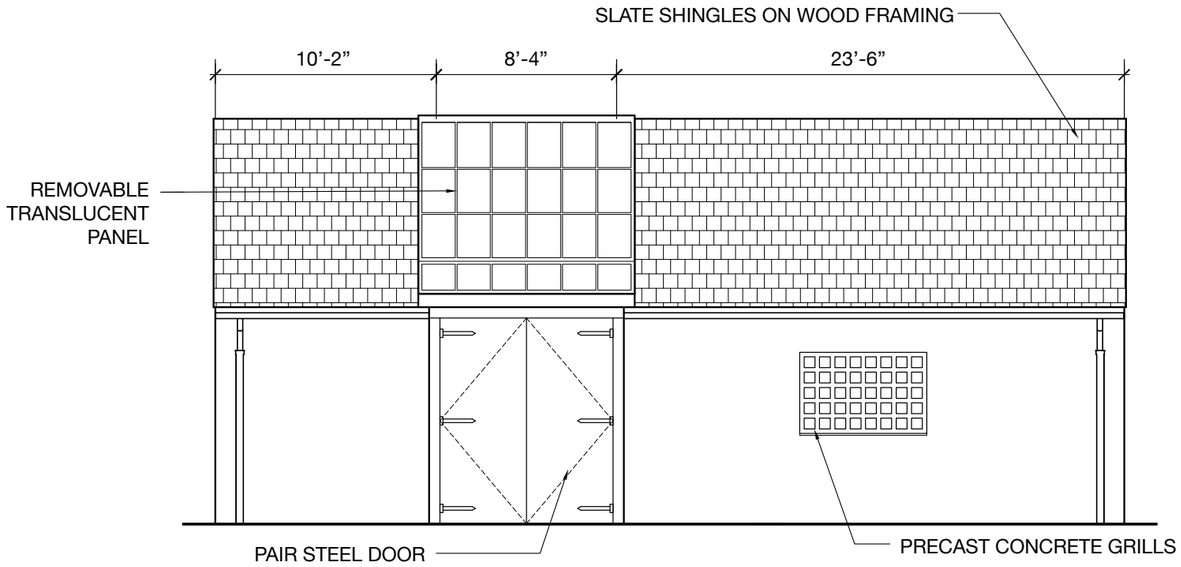
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION

0 10
Feet

SOURCE: SFPUC, 2010; ESA

Case No. 2008.1122P: Local Coastal Permit

Figure 8
South Windmill Replacement Well Facility - Proposed Building Elevations

Existing Condition

Simulation

Case No. 2008.1122P: Local Coastal Permit

SOURCE: SFPUC, 2011

Figure 9

Rendering of South Windmill Replacement Well Facility

SOURCE: SFPUC, 2010; ESA

Case No. 2008.1122P: Local Coastal Permit

Figure 10

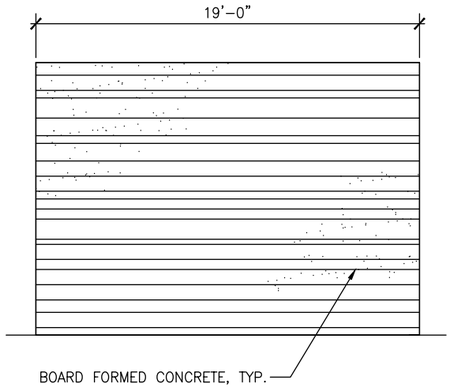
North Lake Well Facility Construction Area

SOURCE: SFPUC, 2010; ESA

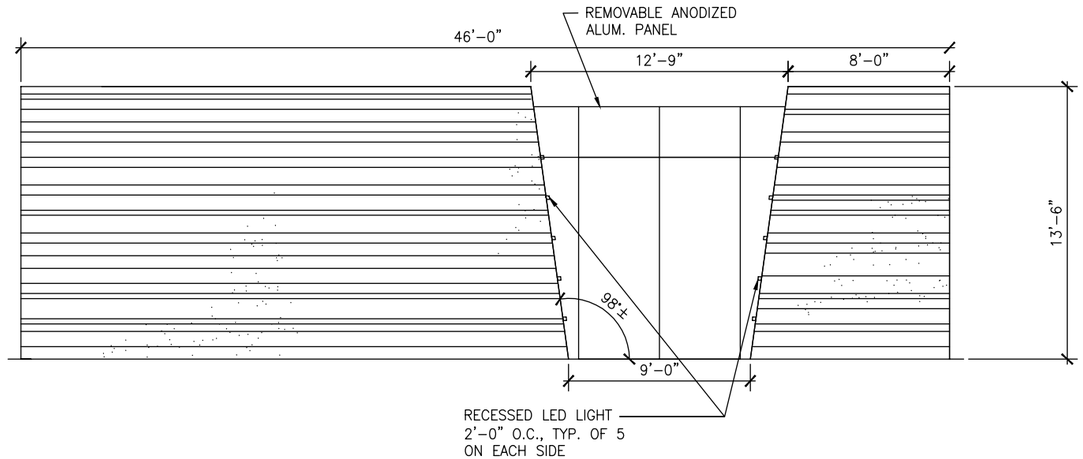
Case No. 2008.1122P: Local Coastal Permit

Figure 11

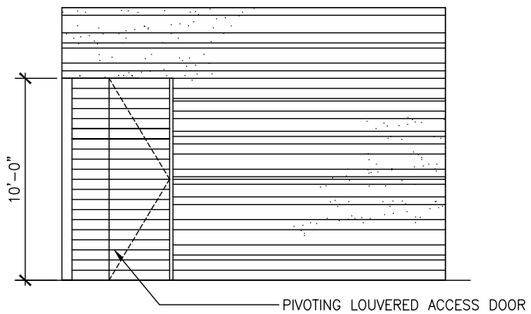
North Lake Well Facility - Proposed Project Components and Construction Area



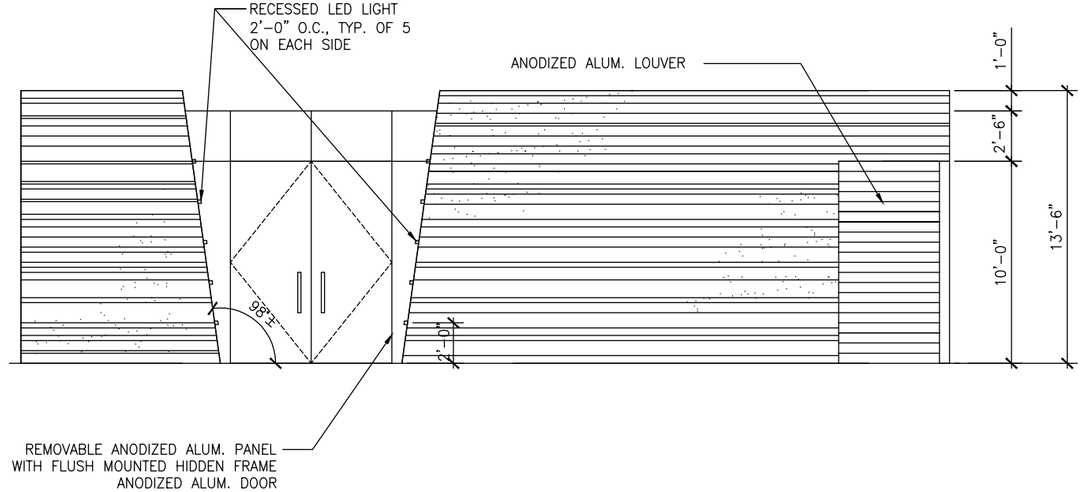
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION

0 10

Feet

SOURCE: SFPUC, 2010; ESA

Case No. 2008.1122P: Local Coastal Permit

Figure 12
North Lake Well Facility -
Proposed Building Elevations

Existing Condition

Simulation

SOURCE: SFPUC, 2011

Case No. 2008.1122P: Local Coastal Permit

Figure 13

Rendering of North Lake Well Facility