

Attachment A

San Antonio Backup Pipeline Project

California Environmental Quality Act Findings: Findings of Fact, Evaluation of Mitigation Measures and Alternatives, and Statement of Overriding Considerations

San Francisco Public Utilities Commission

In determining to approve the San Antonio Backup Pipeline (SABPL) Project (project) described in Section I, Project Description, below, the San Francisco Public Utilities Commission (SFPUC) 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 Administration 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, 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 the 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 its 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 **Attachment B to Resolution No. _____**. The MMRP is required by CEQA Section 21081.6 and CEQA Guidelines

Section 15091. Attachment B 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. Attachment B 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 Attachment B.

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.

I. Approval of the Project

A. Project Description

By this action, the SFPUC adopts and implements the SABPL Project identified in the Final EIR, including Pumping Variant 1 (a one-step pumping process) in lieu of the two-step pumping process which would use the proposed Alameda Creek Pumping Station. Specifically, the Project adopted by the SFPUC includes the following:

- 7,000-foot-long San Antonio Backup Pipeline (backup pipeline)
- Discharge facility at Pit F3-East, including a discharge valve vault, an electrical control building, electrical transformer next to the electrical control building, a baffled outfall, and a reinforced-concrete splash pad
- Chemical facility for dechlorination and pH adjustment, including a 250-gallon propane tank
- Cutoff wall around quarry Pit F3-East
- Dewatering facilities and related equipment
- Other improvements, including power supply facilities, Supervisory Control and Data Acquisition (SCADA) transmitters, and drainage improvements
- Replacement of a 5,700-foot-long section of potable water pipeline to the town of Sunol
- Relocation of a 1,325-foot-long section of potable water pipeline and 1,400-foot-long section of raw water pipeline

B. Pumping Variant

The SFPUC has selected, and is adopting as part of the project, Pumping Variant 1, one of two pumping variants analyzed in the Final EIR in addition to the pumping under the proposed Project in the EIR (proposed project). Pumping Variant 1 would pump water using a one-step process directly from Pit F3-East to San Antonio Reservoir or the Sunol Valley Water Treatment

Plant (SVWTP) via two submersible high-pressure pumps adjacent to the concrete splash pad of the new discharge facility, instead of the two submersible low-pressure pumps under the proposed project. Similar to the proposed project, an approximately 150-foot-long segment of the existing Sunol Pump Station Pipeline would need to be replaced to allow for the connection with the dewatering pipeline (note that under the proposed project, replacement of this 150-foot-long segment is needed for the connection with the transfer and dewatering pipelines).

By approving the Project Variant as an element of the project, the Commission is not proceeding with the construction of Alameda Creek Pump Station and associated facilities as envisioned in the Final EIR (wet well, electrical control building, overhead power line between the Hetch Hetchy Water & Power (HHWP) Calaveras Substation to the pump station, electrical transformer, and retaining wall, facilities to enable dewatering of Pit F3-West), or the transfer pipeline, and Staging Area D would not be used during project construction. In addition, under Pumping Variant 1, the cutoff wall would enclose only Pit F3-East (as opposed to both Pits F3-East and F3-West).

This variant would generate an estimated 93,000 cubic yards of excess spoils, which is 27,000 cubic yards less than the proposed project. Overall, the construction schedule for Pumping Variant 1 would be similar to that of the proposed project (21 months).

Impact conclusions, significance determinations, and mitigation measures for all construction impacts would be the same as those for the proposed project. The operational impacts of Pumping Variant 1 would be the same as the proposed project's, except for the impact related to one topic area: energy use. Pumping Variant 1 would result in a reduction in operational energy use when compared to the proposed project. However, the overall significance determination for this impact would be the same that of as the proposed project. All impact conclusions, significance determinations, and mitigation measures for operational impacts would also be the same as those identified for the proposed project. Similarly, the alternatives selected and analyzed in the Final EIR and the findings related thereto in Section V, Evaluation of Project Alternatives, apply to the project with implementation of Pumping Variant 1.

C. Project Objectives

The two main objectives of the SABPL project are:

- Provide reliable conveyance capacity for emergency discharges of Hetch Hetchy water supplies during events that impair water quality or during facility outages
- Increase operational flexibility and delivery reliability during emergencies and planned maintenance

In addition, the project is part of the SFPUC's adopted Water System Improvement Program (WSIP) adopted by this Commission on October 30, 2008 (see Section C.1). 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 increase water delivery reliability and help maintain high-quality water and would therefore contribute to the SFPUC's ability to meet the WSIP goals.

D. Environmental Review

1. Water System Improvement Program Environmental Impact Report

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 San Francisco Planning Department prepared a Program EIR ("PEIR"), which was certified by the San Francisco 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 Antonio Backup Pipeline Project.

2. San Antonio Backup Pipeline Project Environmental Impact Report

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the San Francisco Planning Department, as lead agency, prepared a Notice of Preparation (NOP) and conducted a scoping meeting for the EIR. The San Francisco Planning Department released the NOP on October 5, 2007, and held a public scoping meeting on October 25, 2007, in the town of Sunol.

The NOP was distributed to the State Clearinghouse, Northwest Information Center at Sonoma State University, and libraries on the mailing list. Copies of the NOP or NOP Notice of Availability were mailed to wholesale water customers; responsible and trustee agencies; other agencies; SFPUC Citizen Advisory Committee members; other interested parties; local and bordering jurisdictions; media, libraries, and individuals; and owners and occupants of real properties surrounding the project area. The NOP was also posted on the San Francisco Planning Department's website. The scoping meeting was held at the Sunol Glen School in Sunol. Seven people attended. The purpose of the scoping meeting was to present the project description and receive oral comments regarding the scope of the Draft EIR for the proposed project.

The San Francisco Planning Department, Major Environmental Division (MEA), now named the Environmental Planning Division (EP), received comments on the NOP from August 3 through September 18, 2007. In addition to two verbal comments received during the scoping meeting, MEA received eight written comment letters. The comment inventory is included in the Scoping Report in Appendix B of the Draft EIR. Comments addressed environmental issues such as aesthetics, biological resources, hazardous materials, water quality, and recreation. Comments also addressed the project description and future project notice.

EP then prepared the Draft EIR, which described the project and the environmental setting, identified potential impacts, and 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 of those key components. It also included an analysis of three 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 EP guidance regarding the environmental effects to be considered significant. EP guidance is, in turn, based on CEQA Guidelines Appendix G, with some modifications.

The Draft EIR was circulated to local, state, and federal agencies and to interested organizations and individuals for review and comment on January 25, 2012 for a 45-day public review period, which closed at 5:00 p.m. on March 12, 2012. Public hearings on the Draft EIR to accept written or oral comments were held at the Sunol Glen School in Sunol on February 22, 2012 and at the San Francisco Planning Commission meeting at San Francisco City Hall on February 23, 2012. During the public review period, EP received written comments sent through the mail, fax, or email. A court reporter was present at each of the public hearings, transcribed the public hearings verbatim, and prepared written transcripts.

EP 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 September 6, 2012 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 Planning Commission reviewed and considered the Final EIR, which includes the Draft EIR and the C&R document, and all of the supporting information. The Final EIR provided augmented and updated information on many issues presented in the Draft EIR, including (but not limited to) the following topics: project description, aesthetics, transportation and circulation, recreation, biological resources, hydrology and water quality, and alternatives. In certifying the Final EIR, the Planning Commission determined that the Final EIR did not add significant new information to the Draft EIR that would require recirculation of the EIR under

CEQA because 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. This Commission concurs in that determination.

The Final EIR fully analyzed the project proposed for approval herein. No new impacts have been identified that were not analyzed in the Final EIR.

E. Approval Actions

1. San Francisco Planning Commission Actions

On September 20, 2012, the Planning Commission certified the Final EIR.

2. San Francisco Public Utilities Commission Actions

The SFPUC is taking the following actions and approvals to implement the project:

- Adopt these CEQA findings and the attached Mitigation Monitoring and Reporting Program.
- Approve the project, as described herein, and authorization for the General Manager or his designee to obtain necessary permits, consents, agreements and approvals as set forth in the Commission's Resolution No. _____ approving the project to which this Attachment A is attached.

3. San Francisco Board of Supervisors Actions

The Planning Commission's certification of the Final EIR may be appealed to the Board of Supervisors. If appealed, the Board of Supervisors will determine whether to uphold the certification or to remand the Final EIR to the Planning Department for further review.

The San Francisco Board of Supervisors approves an allocation of bond monies to pay for implementation of the project.

4. Other – Federal, State, and Local Agencies

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:

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Transportation

- State Historic Preservation Officer
- California Occupational Safety and Health Administration
- California Department of Fish and Game
- State Water Resources Control Board
- San Francisco Bay Regional Water Quality Control Board
- State Department of Water Resources
- Bay Area Air Quality Management District
- Alameda County Department of Public Works

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.

F. Findings about Significant Environmental Impacts and Mitigation Measures

The following Sections II, III, and IV set forth the SFPUC'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 SFPUC regarding the environmental impacts of the project and the mitigation measures included as part of the Final EIR and adopted by the SFPUC as part of the project. To avoid duplication and redundancy, and because the SFPUC 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 herein and rely upon them as substantial evidence supporting these findings.

In making these findings, the SFPUC has considered the opinions of SFPUC staff and experts, other agencies, and members of the public. The SFPUC finds that the determination of significance thresholds is a judgment decision within the discretion of the City and County of San Francisco; 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 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 SFPUC is not bound by the significance determinations in the EIR (see Public Resources Code, Section 21082.2, subdivision (e)), the SFPUC 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 SFPUC 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 SFPUC 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 SFPUC 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 SFPUC rejecting the conclusions of the Final EIR or the mitigation measures recommended in the Final EIR for the project.

II. Impacts Found Not To Be Significant and Thus Do Not Require Mitigation

Under CEQA, no mitigation measures are required for impacts that are less than significant (Pub. 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 SFPUC 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 construction would not have a substantial impact on the existing character of the vicinity.
- Impact LU-3: Project operations would not result in substantial long-term or permanent impacts on the existing character of the vicinity.

Aesthetics

- Impact AE-2: Project construction would not result in significant impacts related to a new source of substantial light or glare.
- Impact AE-4: The proposed project would not create a new permanent source of substantial light or glare.

Transportation and Circulation

- Impact TR-1: Construction of the proposed project would not substantially conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of travel.
- Impact TR-2: Project construction activities would not result in inadequate emergency access.
- Impact TR-4: Vehicle trips generated during project operations and maintenance activities would not substantially conflict with an applicable congestion management program.

Noise and Vibration

- Impact NO-3: Construction activities would not result in excessive ground-borne vibration.
- Impact NO-4: Project operations would not result in a substantial permanent increase in ambient noise levels in the project vicinity or significant impacts related to the exposure of people to noise levels in excess of standards established by the Alameda County Noise Ordinance.

Air Quality

- Impact AQ-2: Project construction would not expose sensitive receptors to substantial pollutant concentrations.
- Impact AQ-3: Project construction activities would not create objectionable odors affecting a substantial number of people.
- Impact AQ-4: Project operations would not violate air quality standards or contribute substantially to an existing air quality violation.
- Impact AQ-5: Project operations would not expose sensitive receptors to substantial pollutant concentrations.
- Impact AQ-6: Project operations would not create objectionable odors affecting a substantial number of people.
- Impact AQ-7: Implementation of the proposed project would not conflict with or obstruct implementation of the 2010 Clean Air Plan.

Greenhouse Gas Emissions

- Impact GG-1: Project construction would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.
- Impact GG-2: Project operations would generate GHG emissions, but not at levels that would have a significant impact on the environment.

- Impact GG-3: Project operations would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.
- Impact C-GG: The proposed project would not result in a cumulatively considerable contribution to cumulative GHG emissions.

Recreation

- Impact RE -2: The proposed project would not degrade existing recreational uses during project operations.

Utilities and Service Systems

- Impact UT-3: Project construction would not result in a substantial adverse effect related to landfill capacity.
- Impact UT-4: 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 operations would not have a substantial adverse effect related to the disruption or relocation of existing utilities or utility services.

Biological Resources

- Impact BI-5: The proposed project would not have a substantial adverse effect on wildlife corridors or wildlife nursery sites during construction.
- Impact BI-8: Project operations would not have a substantial adverse effect on jurisdictional waters, riparian habitat, or aquatic resources during project operations.
- Impact BI-9: The proposed project would not have a substantial adverse effect on sensitive habitats during project operations.
- Impact BI-10: The proposed project would not interfere with the movement of native resident trout and other native migratory fishes during project operations.

Geology and Soils

- Impact GE-3: The project would not expose people or structures to substantial adverse effects related to the risk of loss, injury, or death due to rupture of a known earthquake fault.
- Impact GE-4: The project would not expose people or structures to substantial adverse effects related to the risk of loss, injury, or death due to seismically induced ground-shaking.

- Impact GE-5: The project would not expose people or structures to substantial adverse effects related to the risk of loss, injury, or death due to seismically induced ground failure, including liquefaction, lateral spreading, or settlement.
- Impact GE-6: The 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 landslides or other slope failures.
- Impact GE-7: The project would not create substantial risks to life or property due to expansive or corrosive soil.
- Impact GE-8: Project operations would not result in substantial soil erosion during project operations.
- Impact GE-9: The proposed project would not substantially change the topography or any unique geologic or physical features of the project area.

Hydrology and Water Quality

- Impact HY-2: Dewatering of excavated areas during project construction would not substantially deplete groundwater supplies.
- Impact HY-4: Discharges of treated water from existing and newly installed pipelines during project construction would not substantially degrade water quality.
- Impact HY-5: The placement of project facilities within a 100-year flood hazard zone would not substantially impede or redirect flood flows, or result in damage to SFPUC facilities or private property.
- Impact HY-6: Project implementation would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of dam failure.
- Impact HY-7: Project implementation would not alter drainage patterns such that there would be a substantial increase in erosion, siltation, or the rate or amount of surface runoff.
- Impact HY-8: Future discharges from the backup pipeline would not substantially degrade water quality or exceed the capacity of Pit F3-East.

Hazards and Hazardous Materials

- Impact HZ-3: Project construction would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
- Impact HZ-4: Project construction would not expose people or structures to a significant risk of loss, injury, or death involving fires.
- Impact HZ-5: Project operations would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- Impact HZ-6: Project operations would not expose people or structures to a significant risk of loss, injury, or death involving fires.

Mineral and Energy Resources

- Impact ME-1: Project construction would not result in the temporary loss of availability of known mineral resources that would be of value to the region or residents of the state, or the temporary loss of availability of a locally important mineral resource recovery site.
- Impact ME-3: Project implementation would not result in the permanent loss of availability of known mineral resources that would be of value to the region or residents of the state, or the permanent loss of availability of a locally important mineral resource recovery site.
- Impact ME-4: Project operations 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.

III. Findings of 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 potential 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 are the same as the mitigation measures identified in the Final EIR for the project. The full text of the mitigation measures is contained in the Final EIR and in Attachment B, the MMRP. The Commission finds that the impacts identified in this section would be reduced to a less-than-significant level through implementation of the mitigation measures contained in the Final EIR and set forth in Attachment B.

This Commission recognizes that some of the mitigation measures are partially within the jurisdiction of other agencies, including the U.S. Fish and Wildlife Service, the California Department of Fish and Game, the Regional Water Quality Control Board, and the U.S. Army Corps of Engineers. The Commission urges these agencies to assist in implementing these mitigation measures, and finds that these agencies can and should participate in implementing these mitigation measures.

Project Impacts

Impact LU-2: Project construction could substantially disrupt or displace existing land uses or

land use activities. (Less than Significant with Mitigation)

Temporary land use disturbance adjacent to construction activities could result from a combination of effects, including noise, vibration, dust, traffic delays, and/or access disruption. Land use displacement would occur if implementation of the project required temporary relocation of existing land uses to accommodate construction, or temporarily restricted land use activities.

The combination of construction-related noise and dust/exhaust emissions could adversely affect daytime land use activities (i.e., reading or watching television) at nearby residences. In addition, project construction would increase vehicle and truck traffic along Calaveras Road, which would generate noise and diesel emissions and potentially increase traffic safety risks for adjacent land uses (due to the increased potential for conflicts between construction vehicles and non-construction-related automobiles). Construction-related noise, air quality, and traffic safety effects along Calaveras Road could combine to substantially disrupt existing land uses, and the impact on existing land uses would be *potentially significant*.

- *Mitigation Measure M-TR-3, Traffic Control Plan*
- *Mitigation Measure M-NO-1, Administrative and Source Controls*
- *Mitigation Measure M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measure M-AQ-1b, BAAQMD Additional Construction Measures for NOx Reduction*

Impact AE-1: Project construction could result in substantial adverse effects on scenic vistas and temporarily degrade the visual character of the site and its surroundings. (Less than Significant with Mitigation)*

The SABPL project could result in temporary construction-related impacts on scenic vistas and the visual character of the project area and vicinity. Although construction activities associated with individual project components would be short term (i.e., would be completed within one year), overall construction is expected to last 21 months. Throughout this time, construction activities, equipment, and materials in work areas and staging areas would be visible from Calaveras Road. Because construction activities would be visible from this scenic route throughout the 21 months of construction, the visual character of the area could be substantially degraded, resulting in a *significant* impact.

- *Mitigation Measure M-AE-1, Site Maintenance*

Impact AE-3: Implementation of the proposed project could result in long-term adverse effects on scenic vistas and scenic resources, and degradation of the visual character of the site and its surroundings. (Less than Significant with Mitigation)*

The SABPL project would have a significant impact on scenic resources and the visual character of the site and its surroundings due to tree removal. Several mature and small native trees, including California buckeye and blue elderberry, located along the southern bank of San Antonio Creek and within Staging Area E would require removal during construction. Tree removal at this

site would occur as close as 450 feet from Calaveras Road, a designated scenic highway, and could be visible to motorists and bicyclists traveling northbound on this road. Dozens of small (2- to 6-inch dbh) native and non-native trees along the backup pipeline alignment and within the Calaveras Road right-of-way would be removed during construction, as well as mature native trees along the backup pipeline alignment that may require removal during construction. In addition, although construction activities associated with the relocation of the raw and potable water pipelines has been designed to minimize conflicts with mature oak trees that line the western shoulder of Calaveras Road in this area, it is possible that one to five of these oak trees could require trimming or removal. These trees provide partial screening of active quarry operations and SFPUC water supply facilities, and removal of these trees along the Calaveras Road right-of-way and other visible portions of the project area, would make these features, as well as the proposed earthen berm at Staging Area C, more visible to motorists and bicyclists traveling along Calaveras Road, which could be a *significant* impact.

- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*

Impact CP-1: Project construction could cause a substantial adverse change in the significance of a historical resource. (Less than Significant with Mitigation)*

Two historic-period architectural resources identified in the C-APE could be affected by the proposed SABPL project: Alameda Siphons Nos. 1 and 2. The backup pipeline would be connected to Alameda Siphon No. 3, which is not considered a historical resource, but the connection would entail construction within approximately 10 feet of Alameda Siphon No. 2 and 20 feet of Alameda Siphon No. 1. Although the backup pipeline would have no physical connection with Alameda Siphons Nos. 1 and 2, construction activities could result in damage to these historical resources due to the project's proximity to the siphons, which could be a *significant* impact.

- *Mitigation Measure M-UT-1h, Measures to Protect Alameda Siphons Nos. 1, 2, and 3*

Impact CP-2: Project construction could cause a substantial adverse change in the significance of a historical or unique archaeological resource. (Less than Significant with Mitigation)*

No archaeological resources were recorded within the C-APE for the proposed project; however, prehistoric archaeological site SA-1 is located immediately east and adjacent to the project area. Although no active archaeological monitoring of project activities is warranted, avoidance measures would be applied. Although the surface inventory and extended archaeological surveys found no cultural resources within the C-APE, 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 disturb or damage previously unrecorded archaeological resources. Although impacts are not anticipated, any disturbance to this resource during project construction activities could result in a *significant* impact.

- *Mitigation Measure M-CP-2a, Site Protection Measures for Prehistoric Archaeological Site SA-1*
- *Mitigation Measure M-CP-2b, Accidental Discovery of Archaeological Resources*

Impact CP-3: Project construction could result in a substantial adverse effect by directly or indirectly destroying a unique paleontological resource or site. (Less than Significant with Mitigation)*

No paleontological resources are known to exist within the project C-APE, but such resources have been found in the Sunol Valley and in the Alameda Creek watershed. It is probable that Pleistocene alluvium exists within the project area at relatively shallow depths beneath the ground surface. Because Pleistocene alluvium has a high paleontological potential, disturbance or destruction of a unique paleontological resource could occur if this unit is encountered during excavation or trenching. The Briones Formation has a high paleontological potential, and is a unique paleontological resource that could be disturbed or destroyed during excavation or trenching for the project. Unique and significant fossils could be disturbed or destroyed if either Pleistocene alluvium or the Briones Formation is encountered at greater depths during pipeline trenching and other project-related excavations. Thus, the construction-related impact on paleontological resources is considered *potentially significant*.

- *Mitigation Measure M-CP-3, Paleontological Resources Mitigation Program*

Impact CP-4: Project construction could result in a substantial adverse effect related to the disturbance of human remains. (Less than Significant with Mitigation)

Although no known human burial locations have been identified within the project C-APE, the possibility cannot be entirely discounted. Project construction could result in direct impacts on previously undiscovered human remains during any earthmoving activities. Although earthmoving associated with construction would be a comparatively short-term activity, impacts on human remains would constitute a long-term impact. The impact related to the disturbance of human remains during construction would be *potentially significant*.

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

Impact TR-3: Project construction activities would decrease the safety of public roadways for vehicles, bicyclists, and pedestrians. (Less than Significant with Mitigation)

Construction vehicles traveling to and from the project area would share the roadway with other vehicles as well as with bicyclists and pedestrians. The use of Calaveras Road to access the project area during construction could increase traffic safety hazards due to potential conflicts between construction vehicles (with slower speeds and wider turning radii than autos) and automobiles, bicyclists, and pedestrians. Since project-generated vehicle trips would be greatest on weekdays (when there are few pedestrians and bicyclists on Calaveras Road), the potential for conflicts and increased traffic safety hazards would be limited. Regardless, this potential increase in traffic safety hazards during construction is considered to be a *potentially significant* impact.

- *Mitigation Measure M-TR-3, Traffic Control Plan*

Impact NO-1: Construction activities would result in substantial temporary increases in ambient noise levels that could interfere with nearby land uses. (Less than Significant with Mitigation)*

Project-related construction activities would result in temporary noise increases at sensitive receptors located adjacent to or near the project area. Construction noise levels would vary at any given receptor depending on the construction activity, equipment type, duration of use, distance between the noise source and receptor, and the presence or absence of barriers between the noise source and receptor.

Extended construction hours during air gap construction and connection with the backup pipeline, and during connection of the backup pipeline to Alameda Siphon No. 3, would result in nighttime construction noise for a combined total of six weeks. Backup alarms would not be used during evening and nighttime hours. However, project-related construction activities could exceed the 50-dBA sleep interference threshold at the SFPUC watershed keeper's residence east of Calaveras Road due to the use of heavy construction equipment, resulting in a *significant* impact.

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

Impact NO-2: Construction activities would expose people to noise levels in excess of standards established by the Alameda County Noise Ordinance. (Less than Significant with Mitigation)*

For construction activities extending beyond the ordinance time limits on Saturdays or during the six weeks of extended construction, the Alameda County Noise Ordinance specifies exterior noise standards. Due to the possibility that certain types of construction equipment could operate beyond ordinance time limits at these minimum distances to the SFPUC watershed keeper's residence, the impact is considered significant.

In addition, if it is necessary to use equipment with backup alarms beyond the ordinance time limits, L_{max} noise levels from backup alarms could exceed the ordinance noise limits. During these hours (7 a.m. to 8 a.m., and 5 p.m. to 7 p.m. on Saturdays), L_{max} noise levels from backup alarms (53 to 73 dBA at 360 feet from the SFPUC watershed keeper's residence, 40 to 60 dBA at 1,550 feet from the Garcia residence, and 38 to 58 dBA at 2,100 feet from the two residences on Athenour Way) could periodically exceed the ordinance noise limits, which would be a *significant* impact.

- *Mitigation Measure M-NO-2, Noise Control Plan*

Impact RE-1: The proposed project could temporarily degrade existing recreational uses during construction. (Less than Significant with Mitigation)*

Calaveras Road, a popular bicycle route, forms the eastern boundary of the project area and provides the primary access to the project vicinity. The backup pipeline, the 12-inch-diameter water pipeline to the town of Sunol, and the raw water pipeline and potable water pipeline that would be rerouted around the eastern boundary of Staging Area C would be installed adjacent to the southbound lane of Calaveras Road. Construction equipment used during pipeline installation would generate noise and dust/exhaust emissions that could adversely affect the recreational experience of bicyclists traveling along Calaveras Road. In addition, project construction would increase vehicle and truck traffic along Calaveras Road, which would generate noise and diesel emissions and increase traffic safety risks compared to existing conditions. This increased traffic safety risk is due to the increased potential for conflicts between construction vehicles—which

have slower speeds and wider turning radii than automobiles—and non-construction-related automobiles and bicyclists. Construction traffic could also result in temporary delays of up to 10 minutes when large construction vehicles turn west into the quarry access roads from Calaveras Road due to the wide turning radii of construction vehicles; this could impede access to the nearby EBRPD parks and trails, the Sunol Water Temple, and the Sunol Valley Golf Course, which are accessed via Calaveras Road and other nearby roadways.

Construction-related air quality and traffic safety effects along Calaveras Road would combine to increase the overall impacts on the recreational experience of bicyclists, although these impacts would be limited in duration as the cyclists pass the project area. Project impacts on recreational bicycling along Calaveras Road could be *significant*.

- *Mitigation Measure M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measure M-AQ-1b, BAAQMD Additional Construction Measures for NO_x Reduction*
- *Mitigation Measure M-TR-3, Traffic Control Plan*

Impact UT-1: Project construction could result in a substantial adverse effect related to disruption of utility operations or accidental damage to existing utilities. (Less than Significant with Mitigation) *

Excavation activities and installation of the proposed pipelines and cutoff wall could result in accidental damage to existing regional or local utility lines or disruption of utility services. 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 like the two PG&E high-pressure gas pipelines, could result in significant safety hazards for construction workers. For the above reasons, impacts on existing utilities and utility services during project construction are considered *significant*.

- *Mitigation Measure M-UT-1a, Confirm Utility Line Information*
- *Mitigation Measure M-UT-1b, Safeguard Employees from Potential Accidents Related to Underground Utilities*
- *Mitigation Measure M-UT-1c, Notify Local Fire Departments*
- *Mitigation Measure M-UT-1d, Emergency Response Plan*
- *Mitigation Measure M-UT-1e, Ensure Prompt Reconnection of Utilities*
- *Mitigation Measure M-UT-1f, Coordinate Final Construction Plans with Affected Utilities*
- *Mitigation Measure M-UT-1g, Avoidance of Utilities Constructed or Modified by Other SFPUC Projects*
- *Mitigation Measure M-UT-1h, Measures to Protect Alameda Siphons Nos. 1, 2, and 3*

Impact UT-2: Project construction could result in a substantial adverse effect related to the relocation of regional or local utilities. (Less than Significant with Mitigation)

The proposed alignments for the backup pipeline and the 12-inch-diameter water pipeline to the town of Sunol would cross beneath or above existing utilities at several locations. The SABPL project proposes to relocate a 1,325-foot-long segment of 12-inch diameter potable water pipeline and a 1,400-foot-long segment of 12-inch diameter raw water pipeline around the eastern boundary of Staging Area C. In addition, it is possible that relocation of other utility lines would be necessary once the locations and characteristics of conflicting utilities are confirmed. In addition, the utility poles along the backup pipeline alignment and within the limits of the pipeline trench might need to be relocated if they have not already been moved as part of another SFPUC project prior to construction of the SABPL project. Consequently, installation of the backup pipeline could require temporary or permanent relocation of utility lines that are owned and operated by other utility companies. For the above reasons, impacts related to utility relocation are considered *significant*.

- *Mitigation Measure M-UT-1a, Confirm Utility Line Information*
- *Mitigation Measure M-UT-1f, Coordinate Final Construction Plans with Affected Utilities*
- *Mitigation Measure M-UT-1g, Avoidance of Utilities Constructed or Modified by Other SFPUC Projects*

Impact BI-1: The proposed project could have a substantial adverse effect on special-status animal species during construction. (Less than Significant with Mitigation)*

Potential impacts on San Joaquin kit fox, burrowing owl, and western pond turtle during project construction activities are considered less than significant. Project construction activities would occur in areas that potentially serve as refugia or movement corridors for California tiger salamander (CTS), California red-legged frog (CRLF), and Alameda whipsnake. Site clearing and preparation for construction activities could remove habitat for these species, and construction equipment moving through the site could impede movement corridors and cause direct injury or mortality to individuals. In addition, accidental releases of hazardous construction materials could cause illness or mortality if individuals were to come into contact with these toxic materials. Much of the Project area has already been cleared, graded, and fenced for the New Irvington Tunnel (NIT) and Alameda Siphons Seismic Reliability Upgrade (Alameda Siphons) projects, thereby eliminating and excluding these areas from potential use by CTS, CRLF, and Alameda whipsnakes. However, areas where impacts could occur include the northern one-third of the backup pipeline alignment (particularly at the San Antonio Creek crossing). Construction of the proposed project could result in *potentially significant* impacts associated with the temporary and permanent loss of habitat and the potential for direct mortality of CRLF, CTS, and Alameda whipsnake.

Construction activities could remove the nesting and foraging habitat of special-status birds and other wildlife, or disrupt breeding and foraging. The removal of large mature trees in riparian and developed and ruderal areas such as Staging Area E would remove important nesting habitat for nesting birds, raptors, and bats. In addition, the two quarry buildings located east of Pit F3-East—the residential-type building and the shed-roofed barn structure—that are proposed for demolition and removal may provide roosting habitat for bats. The potential for temporary and permanent habitat loss and disruption of breeding and foraging habitat in the northern portion of the Project

area, and in the mature trees that were preserved in the vicinity of the southern backup pipeline alignment, would be a potentially significant impact.

- *Mitigation Measure M-BI-1a, General Protection Measures*
- *Mitigation Measure M-BI-1b, Worker Training and Awareness Program*
- *Mitigation Measure M-BI-1c, Minimize Disturbance to Riparian Habitat*
- *Mitigation Measure M-BI-1d, Prevent Movement of Specific Species through the Work Areas*
- *Mitigation Measure M-BI-1e, Preconstruction Surveys and Construction Monitoring and Protocols for California Tiger Salamander, California Red-Legged Frog, and Alameda Whipsnake*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*
- *Mitigation Measure M-BI-1g, Measures to Minimize Disturbance to Special-Status Bird Species*
- *Mitigation Measure M-BI-1h, Conduct Preconstruction Surveys for Any Special-Status Bats Found and Implement Avoidance and Minimization Measures*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*

Impact BI-2: The proposed project could have a substantial adverse effect on riparian habitat and other sensitive habitats during construction. (Less than Significant with Mitigation)*

The mule fat scrub riparian habitat along San Antonio Creek is a sensitive habitat because of its jurisdictional designation as riparian habitat under the State Fish and Game Code. Open-trench construction across San Antonio Creek during installation of the backup pipeline would temporarily remove approximately 0.35 acre of mule fat scrub and streambank vegetation. Dozens of small (2- to 6-inch dbh) native and non-native trees located along the backup pipeline alignment, along the 1,400-foot-long segment of raw water pipeline and 1,325-foot-long segment of potable water pipeline that would be rerouted around the eastern boundary of Staging Area C, and within the Calaveras Road right-of-way could be removed during construction (these trees are protected by the Alameda County Tree Ordinance). Other isolated, mature native trees, such as valley oak and California sycamore, that exist along the southern and northern portions of the backup pipeline alignment on the west side of Calaveras Road and in the vicinity of Staging Area C could also require removal during construction. Some trees are within the construction zone for the SABPL project and could be lost as a result of this project. In addition, the placement of spoils in the proposed earthen berms at the North Spoils Site and at the former nursery site located within Staging Area C, as well as the installation of pipelines at Staging Area C, could extend to areas within the dripline of the numerous native and planted oaks along Calaveras Road (although neither the North Spoils Site nor the former nursery site are within the Calaveras Road right-of-way). Earthmoving activities within the dripline of oaks could result in increased pathology and death of these oak trees. Impacts on riparian habitat along San Antonio Creek, native trees along Calaveras Road, and large, isolated, mature trees would be *potentially significant*.

- *Mitigation Measure M-BI-1a, General Protection Measures*

- *Mitigation Measure M-BI-1b, Worker Training and Awareness Program*
- *Mitigation Measure M-BI-1c, Minimize Disturbance to Riparian Habitat*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*

Impact BI-3: The proposed project could have a substantial adverse effect on jurisdictional waters during construction. (Less than Significant with Mitigation)*

Construction-related impacts on federal and state jurisdictional waters could occur within or immediately adjacent to San Antonio Creek, in the unnamed ephemeral tributary located near pipeline station 18+00, and at the freshwater marsh located just west of the Sunol Valley Chloramination Facility and proposed chemical feedlines for the new chemical facility. Impacts on riparian habitat and jurisdictional waters associated with trenching across San Antonio Creek would be potentially significant.

Construction activities in or near these areas could potentially result in the temporary loss of habitat, discharge of fill into jurisdictional waters, erosion and sedimentation, and loss of water quality from pollution and dewatering discharges.

The proposed backup pipeline alignment near pipeline station 18+00 crosses an ephemeral drainage. Originally a tributary to Alameda Creek, the drainage now empties into Pit F6. Project construction activities would temporarily affect approximately 0.02 acre of unvegetated channel and streambank during the dry season when open-trench construction is used to install the backup pipeline and the water pipeline to the town of Sunol across this drainage. Because this ephemeral drainage was confirmed to be a water of the United States by the Corps, the impacts on this drainage would be significant.

A 0.07-acre area delineated as freshwater marsh is located west of the Sunol Valley Chloramination Facility and south of the Alameda Siphons. This area receives continual overflow water from a water sampling station at the Sunol Valley Chloramination Facility (SFPUC, 2009c). The Corps does not consider this freshwater marsh to be jurisdictional due to the lack of a significant nexus with Alameda Creek (SFPUC, 2009c), but the RWQCB does consider this feature to be jurisdictional (SFPUC, 2008) as it has a relatively high value for wildlife. Although the freshwater marsh would not be directly affected by construction activities, installation of chemical feedlines between the existing fluoride facility and the new chemical facility would involve construction in an area as close as 8 feet from the freshwater marsh at the closest point, and approximately 90 feet from the marsh at the farthest point. Construction activities in close proximity to the freshwater marsh could result in the inadvertent disturbance of or secondary impacts on the marsh. Because of the habitat value of this freshwater marsh, the potential for project construction activities to result in secondary impacts on this feature is considered a *significant* impact.

- *Mitigation Measure M-BI-3, Avoidance and Protection Measures for Jurisdictional Water Bodies*
- *Mitigation Measure M-BI-1a, General Protection Measures*
- *Mitigation Measure M-BI-1b, Worker Training and Awareness Program*
- *Mitigation Measure M-BI-1c, Minimize Disturbance to Riparian Habitat*

- *Mitigation Measure M-BI-1d, Prevent Movement of Specific Species through the Work Areas*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*

Impact BI-4: The proposed project could have a substantial adverse effect on resident trout and other native fishes during construction, either by impeding movement or adversely affecting aquatic habitat. (Less than Significant with Mitigation)*

Open-trench construction across San Antonio Creek would only occur during the dry season when San Antonio Creek is the least likely to contain flow. As a result, direct construction impacts on resident trout and other fishes in San Antonio Creek would be less than significant.

Construction activities outside of the Alameda and San Antonio Creek channels but adjacent to the creeks could adversely affect resident trout and other native fishes during construction if both flow and fish are present in the creeks. Disturbance could result from the movement of construction equipment and personnel, removal of riparian vegetation, grading activities, and construction of access roads and staging areas near creek channels. Disturbance of adjacent soils could increase erosion and cause sedimentation in the creeks; if the creeks are flowing, such soil disturbance could affect water quality by increasing turbidity (i.e., the relative clarity of water, which can be reduced by suspended sediment). This could in turn affect the behavior, growth, reproduction, and movement of fish and other aquatic organisms. Sediment deposition could potentially alter channel morphology by changing the shape or configuration of the creeks, which would affect the creek characteristics such as pools and riffles. Resident rainbow trout and other native fish species could also be affected if hazardous materials such as oil, lubricants, concrete, or other chemicals used during construction are released to the creeks. Assuming fish were present, the effect on fish would depend on several factors, including the concentration, duration, and frequency of exposure, as well as water temperature. Contaminants can reduce growth, reproduction, movement, and survival of fish. Potential impacts on aquatic habitat during construction are considered *significant*.

- *Mitigation Measure M-BI-1b, Worker Training and Awareness Program*
- *Mitigation Measure M-BI-1c, Minimize Disturbance to Riparian Habitat*
- *Mitigation Measure M-BI-3, Avoidance and Protection Measures for Jurisdictional Water Bodies*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*

Impact BI-6: Construction activities associated with the proposed project could conflict with local policies or ordinances protecting biological resources. (Less than Significant with Mitigation)*

The relevant policies and ordinances protecting biological resources in the project area are the Alameda WMP and the Alameda County Tree Ordinance. This ordinance protects trees within the

Calaveras Road right-of-way. The actions and guidelines of the Alameda WMP were used to inventory the resources in the project area, assess the impact of the project, and develop appropriate mitigation where necessary to address potentially significant impacts. It is the standard practice of the SFPUC to conduct construction activities in accordance with the policies of the Alameda WMP. These standard practices include reviewing relevant information sources, conducting appropriate surveys, minimizing the extent of the construction zone in areas of sensitive biological features, and carrying out construction so as to minimize impacts on biological resources. Because the project could adversely affect trees within the Alameda County right-of-way, this impact would be *significant*.

- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*

Impact BI-7: Project operations could have a substantial adverse effect on special-status animal species. (Less than Significant with Mitigation)

Although quarry Pits F3-East and F3-West do not provide breeding habitat for CRLF, the pits could provide aquatic refugia for this species. As part of future project operations, the SFPUC would discharge quality-impaired Hetch Hetchy water to quarry Pit F3-East during planned maintenance and emergency events. All discharges would be dechlorinated prior to discharge into the quarry pit. The backup pipeline would terminate at a baffled outfall, which would dissipate the energy and decrease the velocity of the water stream, and direct the flow onto a concrete splash pad constructed over the slope of the quarry pit. Discharged water would flow over the concrete splash pad and into the quarry pit. Since CRLF would not utilize a barren concrete slab, discharges from the backup pipeline are not expected to result in direct injury to, or mortality of, CRLF.

During project operations, following a discharge from the backup pipeline that raises water elevations in the quarry pit above 195 feet mean sea level (msl), the discharged water would be recovered by pumping the water to the wet well beneath the Alameda Creek Pump Station using submersible pumps in the concrete splash pad at Pit F3-East, and flexible hoses and pumps mounted on floating platforms in Pit F3-West. Should CRLF become entrained in the intakes for the dewatering pumps (e.g., the submersible pumps and the pumps mounted on floating platforms), it is likely that mortality of the CRLF would result. This would be a *significant* impact. However implementation of the mitigation measure below would reduce this impact to a less-than-significant level.

- *Mitigation Measure M-BI-7, Screen Dewatering Pump Intakes*

Impact GE-1: The project is located on a geologic unit that could become unstable as a result of project construction. (Less than Significant with Mitigation)*

Natural or constructed slopes can become destabilized during construction-related excavation and/or grading operations, particularly if material is added to the head of the slope or removed from the toe (or bottom) of the slope. The majority of the project area is relatively flat and is located on USGS-designated “flatland” (USGS, 1997); however, the proposed discharge facility would require construction of a baffled outfall and concrete splash pad on the southern edge of quarry Pit F3-East and a drainage outfall and riprap dissipator on the northeastern slope of Pit F3-East. Earthwork and excavation of the quarry pit wall during construction of these project

components could destabilize the slope and result in slope failure, which would be a *significant* impact.

- *Mitigation Measure M-GE-1, Shoring Plan for Pit F3-East*

Impact GE-2: The project could result in substantial soil erosion or the loss of topsoil during construction. (Less than Significant with Mitigation)

During construction, vegetation and groundcover that serve to stabilize site soils would be removed from portions of the project area. Without proper soil stabilization controls, construction activities such as excavation, backfilling, and grading could increase the potential for exposed soils to be eroded by wind or stormwater runoff, resulting in long-term soil loss—a potentially significant impact.

Project construction activities could also result in the loss of topsoil (a fertile soil horizon that typically contains a seed base) if there is a well-developed topsoil horizon and it is mixed with other soil horizons or otherwise lost during excavation and backfilling. The construction of project components south of San Antonio Creek could result in the loss of topsoil through the following activities: grading of the proposed staging areas; excavation for the proposed backup pipeline and 12-inch-diameter water pipeline to the town of Sunol; construction of the discharge valve vault and electrical control building, construction of the new chemical facility, and construction of ancillary structures. North of San Antonio Creek, excavation activities to reroute the raw water and potable water pipelines around the eastern boundary of Pit F3-East could also result in the loss of topsoil. Impacts related to the loss of topsoil during construction would be *significant*.

- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration and Compensatory Mitigation Plan*

Impact HY-1: Project construction could substantially degrade water quality as a result of erosion and sedimentation or an accidental release of hazardous chemicals. (Less than Significant with Mitigation)*

Construction activities would generate an estimated total of 120,000 cubic yards of excess soil and rock material. Exposed soil from stockpiles, excavated areas, and other areas where ground cover has been removed could be transported by wind or water and, if not properly managed, could increase sediment loads in receiving water bodies. Installation of the backup pipeline across San Antonio Creek could destabilize the creek channel and increase channel erosion. Slurry and eroded materials generated during cutoff wall construction could migrate out of the work platform and into Alameda and San Antonio Creeks, increasing sediment loads in these creeks. Increased erosion and sediment loads in receiving waters and suspended sediment levels (turbidity) could adversely affect water quality and the designated beneficial uses of surface waters and groundwater, a *potentially significant* impact. *Potentially significant* water quality impacts could also result from accidental releases of hazardous construction chemicals into surface waters or groundwater.

- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*

- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*

Impact HY-3: Discharges of dewatering effluent from excavated areas during project construction could substantially degrade water quality. (Less than Significant with Mitigation)*

Construction dewatering would be required to create a dry work area if surface water or groundwater is encountered in excavations. Dewatering effluent from excavated areas would be treated, as necessary, and discharged to a containment facility to allow sediment to settle out prior to discharging the effluent to vegetated upland areas, San Antonio Creek, or Alameda Creek. Depending on the site specific conditions and construction methods, high levels of suspended sediment and/or trace amounts of construction-related chemicals (e.g., fuels, lubricants, cement products) could be present in the dewatering effluent. The discharge of polluted dewatering effluent to creeks could degrade water quality and violate water quality standards. Depending on the rate of discharge, the discharged effluent could also cause erosion in the receiving water body. Potential water quality impacts from construction-related dewatering discharges would be *potentially significant*.

- *Mitigation Measure M-HY-3, Management of Dewatering Effluent Discharges*

Impact HZ-1: Project construction could result in a substantial adverse effect related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant with Mitigation)*

Documented releases of hazardous materials at the San Antonio Pump Station and in the SMP-30 area are known to have affected soil quality. In addition, agricultural chemicals have historically been used in the Project area and vicinity for nursery operations. As a result of these documented releases and historical land uses, the potential exists for workers to encounter hazardous materials in excavated soil during construction.

Any hazardous materials encountered in excavated soil or groundwater during project construction could result in a release to the environment, potentially exposing construction workers and the public to hazardous materials and chemical vapors. Depending on the nature and extent of any contamination encountered, adverse health effects and nuisance vapors could result if proper precautions are not taken. Contaminated soil and groundwater could also require disposal as a restricted or hazardous waste. Areas where releases of hazardous materials have occurred (including leaking fuel or chemical storage tanks) present the greatest potential for exposure to contaminated soil and groundwater during construction. The impact related to reasonably foreseeable upset and/or accidental release of hazardous materials in soil during construction would be *potentially significant*.

In addition, the two quarry buildings constructed circa 1970 that would be demolished to facilitate construction of the cutoff wall could include hazardous building materials. Impacts related to disposal of electrical equipment that could contain PCBs, fluorescent light ballasts that could contain DEHP or PCBs, and fluorescent light tubes that contain mercury would be significant.

- *Mitigation Measure M-HZ-1a, Evaluate Soil Quality*
- *Mitigation Measure M-HZ-1b, Implement a Construction Risk and Spoils Management Plan*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HZ-1c, Hazardous Building Materials*

Impact HZ-2: Project construction could result in a substantial adverse effect related to accident conditions involving the release of hazardous construction chemicals into the environment. (Less than Significant with Mitigation)*

It is expected that fuels, lubricants, paints, and solvents would be used during construction activities. Storage and use of hazardous materials at the construction sites and staging areas could result in the accidental release of small quantities of hazardous materials, which could degrade soil, groundwater, and surface water in Alameda or San Antonio Creeks. This impact would be potentially significant.

The SFPUC would implement Alameda WMP actions that pertain to spills of hazardous materials. These include Action haz4, requiring regular servicing of fleet vehicles to minimize spills; Action haz6, requiring identification of high-risk spill areas; Action haz7, requiring development of spill response and containment measures for SFPUC vehicles; and Action haz8, requiring training of SFPUC staff members in spill response and containment measures. Even with these standard procedures, potential impacts on soil, groundwater, and surface water related to the accidental release of hazardous construction chemicals would be *significant*.

- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*

Impact ME-2: Project construction could result in substantial adverse effects related to the use of large amounts of fuel or energy, or the use these resources in a wasteful manner. (Less than Significant with Mitigation)*

Construction of the SABPL project would require the use of fuels (primarily gasoline, diesel, and motor oil) for a variety of construction activities, including excavation, grading, demolition, and vehicle travel. Fuel for construction worker commute trips would be minor in comparison to the fuel used by construction equipment and for hauling. The precise amount of construction-related energy consumption is uncertain. Although fuels would only be used during construction of the SABPL project, excessive idling and other inefficient site operations could result in the wasteful use of fuels, which would constitute a *potentially significant* impact.

- *Mitigation Measure M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measure M-AQ-1b, BAAQMD Additional Construction Measures for NOx Reduction*

Impact AG-1: Implementation of the proposed project would result in the conversion of Unique Farmland, as shown on the maps pursuant to the Farmland Mapping and Monitoring

Program of the California Resources Agency, to non-agricultural use. (Less than Significant with Mitigation)*

The former nursery site located within Staging Area C is designated as Unique Farmland. This 5-acre site would be used for construction staging during the initial phases of construction; however, during the later phases of construction, the SFPUC also proposes to use this site for permanent spoils disposal by placing excess spoils generated during construction in an earthen berm at this site. Thus, project implementation would preclude future use of this site for nursery operations. Therefore, project construction would result in the permanent conversion of Unique Farmland to non-agricultural use, and impacts at this former nursery site would be significant.

- *Mitigation Measure M-AG-1, Compensation for Loss of Unique Farmland*

Cumulative Impacts

Impact C-LU: Project construction would result in a cumulatively considerable contribution to cumulative impacts on existing land uses. (Less than Significant with Mitigation)*

The project and other proposed projects within the region have the potential to result in construction-related traffic, noise, dust, and/or diesel emissions in the Sunol Valley. Because these projects could cumulatively increase construction-related traffic, noise, dust, and diesel emissions in the Sunol Valley, cumulative impacts related to disruption of land uses in the Sunol Valley during construction of these projects would be significant, and the SABPL project's contribution to this cumulative impact would be cumulatively considerable. With implementation of project-level mitigation measures reducing construction-related noise, air emissions, traffic, and traffic safety hazards, the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measures M-TR-3, Traffic Control Plan*
- *Mitigation Measures M-NO-1, Administrative and Source Controls*
- *Mitigation Measures M-AQ-1a , BAAQMD Basic Construction Measures*
- *Mitigation Measures M-AQ-1b, BAAQMD Additional Construction Measures for NO_x Reduction*
- *Mitigation Measure C-M-TR, Combined Sunol Valley Traffic Control Plan*

Impact C-AE: Implementation of the proposed project could result in a cumulatively considerable contribution to cumulative impacts on scenic vistas, scenic resources, and visual character. (Less than Significant with Mitigation)*

As multiple SFPUC projects would construct new aboveground structures in the vicinity of the SABPL project area and/or remove trees that screen existing views of the quarry operations and SFPUC water supply facilities, the long-term cumulative impact on the visual character of this area would be significant. The SABPL project's contribution to this cumulative impact would be cumulatively considerable. However with implementation of project-level mitigation measures,

the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-AE-1, Site Maintenance*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*

Impact C-CP: Construction of the proposed project could result in a cumulatively considerable contribution to cumulative impacts on historical, archaeological, or paleontological resources, or human remains. (Less than Significant with Mitigation)*

The geographic scope of cumulative impacts on cultural resources includes the cultural resources C-APE for the project and the Sunol Valley region. The SABPL project would contribute to cumulative impacts on cultural resources, including historical, archaeological, and paleontological resources, if the SABPL project and other projects were to adversely affect the same cultural resources affected by the project or would cause impacts on other cultural resources in the project vicinity.

Construction of the new Alameda Siphon No. 4 has the potential to cause accidental damage to cultural resources Alameda Siphons Nos. 1 and 2. Because this construction and the construction activities under the SABPL project could result in damage to these historical resources, cumulative impacts on historical resources would be potentially significant, and the SABPL project's contribution to this impact would be cumulatively considerable.

Excavation associated with the SABPL project would have a significant impact related to the potential to encounter previously unrecorded archaeological resources and/or human remains interred outside of a formal cemetery. Other projects could also encounter previously unrecorded archaeological resources or human remains, which would be a potentially significant cumulative impact, and the SABPL project's contribution to this impact would be cumulatively considerable.

With implementation of project-level mitigation measures, the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-UT-1h, Measures to Protect Alameda Siphons Nos. 1, 2, and 3*
- *Mitigation Measures M-CP-2b, Accidental Discovery of Archaeological Resources*
- *Mitigation Measure M-CP-3, Paleontological Resources Mitigation Program*
- *Mitigation Measure M-CP-4, Accidental Discovery of Human Remains*

Impact C-TR: Construction of the proposed project would result in a cumulatively considerable contribution to cumulative traffic increases and safety hazards on local and regional roads. (Less than Significant with Mitigation)*

The cumulative traffic analysis did not identify any cumulatively significant traffic impacts from the project and other cumulative projects related to LOS. However, due to the possible overlap in cumulative project construction schedules in the Sunol Valley region, cumulative impacts associated with increased traffic and safety hazards for vehicles, bicycles, and pedestrians are

considered *significant*, and the SABPL project's contribution would be cumulatively considerable. With implementation of mitigation measures, the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measure C-M-TR, Combined Sunol Valley Traffic Control Plan*
- *Mitigation Measure M-TR-3, Traffic Control Plan*

Impact C-NO: Construction of the proposed project would result in a cumulatively considerable contribution to cumulative noise impacts. (Less than Significant with Mitigation)

For cumulative construction-related noise and vibration impacts, the geographic scope encompasses the sensitive residential receptors in the vicinity of the project area. These sensitive receptors are: the currently unoccupied SFPUC watershed keeper's residence, located 225 feet east of Calaveras Road and the project area; the Garcia residence, located approximately 1,300 feet southwest of the project area; the two private residences on Athenour Way, located approximately 2,100 feet west of the project area; and the Sunol Regional Wilderness, with the closest trail located approximately 1.2 miles southeast of the project area. Noise impacts associated with the SABPL project would result from construction-related equipment and hauling activities.

Construction of the proposed project facilities in the southern project area would occur beyond the ordinance time limits of 7 a.m. to 7 p.m. on weekdays and 8 a.m. to 5 p.m. on Saturdays and Sundays during construction of the three air gaps, the connections between the air gaps and the backup pipeline, and the connection between the backup pipeline and Alameda Siphon No. 3, for a combined total of six weeks of extended construction hours. The SABPL project's maximum nighttime Leq noise level would be 48 dBA at the Garcia residence and 56 dBA at the SFPUC watershed keeper's residence. When combined with the NIT project's estimated nighttime noise levels of 49 dBA (Leq) at the Garcia residence and 50 dBA (Leq) at the SFPUC watershed keeper's residence (San Francisco Planning Department, 2009), cumulative nighttime noise levels could exceed the 50-dBA sleep interference threshold by 2 dBA at the Garcia residence and 7 dBA at the SFPUC watershed keeper's residence, a significant cumulative impact. The SABPL project's contribution of 48 dBA (Leq) at the Garcia residence and 56 dBA (Leq) at the SFPUC watershed keeper's residence is considered cumulatively considerable.

However, cumulative noise increases could also occur at the Garcia Residence and the SFPUC watershed keeper's residence on the east side of Calaveras Road as a result of on-site nighttime construction activities required for the SABPL project (described above) combined with cumulative truck traffic along Calaveras Road associated with the construction of other SFPUC projects in the Sunol Valley. The Environmental Impact Report (EIR) for the SFPUC Calaveras Dam Replacement project estimated cumulative nighttime traffic-related noise increases along Calaveras Road to be 52 dBA (Leq) at the Garcia residence and 50 dBA (Leq) at the SFPUC watershed keeper's residence located on the east side of Calaveras Road (San Francisco Planning Department, 2011). When combined with the nighttime construction noise generated by the SABPL project during the six weeks of extended construction hours, nighttime noise levels could reach 55 dBA (Leq) at the Garcia residence (a 3-dBA increase) and 58 dBA (Leq) at the SFPUC watershed keeper's residence (a 1-dBA increase). Therefore, a temporary but *significant* cumulative noise impact would result, and the SABPL project's contribution to cumulative nighttime noise impacts and cumulative impacts related to exposure of people to noise levels in

excess of standards established by the Alameda County Noise Ordinance would be cumulatively considerable.

With implementation of mitigation measures, the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-C-NO, Coordination of Nighttime Construction and Truck Traffic*
- *Mitigation Measure M-NO-1, Administrative and Source Controls*
- *Mitigation Measure M-NO-2, Noise Control Plan*

Impact C-RE: Construction of the proposed project could result in a cumulatively considerable contribution to cumulative impacts on recreational resources and uses. (Less than Significant with Mitigation) *

Construction of the SABPL project would generate construction-related noise, fugitive dust, diesel emissions, and traffic, which could have a significant impact on recreational bicycling along Calaveras Road. Increased traffic could also cause traffic delays and disrupt vehicular access to the nearby EBRPD parks and trails, the Sunol Water Temple, and the Sunol Valley Golf Course. Of the cumulative projects, the New Irvington Tunnel project, Upper Alameda Creek Filter Gallery project, Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir project, Calaveras Dam Replacement project, and SMP-30 Quarry Expansion and Cutoff Wall project, as well as routine pipeline inspections, could also generate construction-related noise, fugitive dust, diesel emissions, and traffic along Calaveras Road that could affect recreational uses of Calaveras Road and access to nearby recreational facilities, a *potentially* significant cumulative impact. The SABPL project's contribution to this cumulative impact would be cumulatively considerable. With implementation of mitigation measures, the project contribution to this cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measure M-AQ-1b, BAAQMD Additional Construction Measures for NO_x Reduction*
- *Mitigation Measure M-TR-3, Traffic Control Plan*
- *Mitigation Measure C-M-TR, Combined Sunol Valley Traffic Control Plan*

Impact C-UT: Construction of the proposed project could result in a cumulatively considerable contribution to cumulative impacts related to disruption or relocation of utilities. (Less than Significant with Mitigation)*

The SABPL project could have a significant impact related to the potential to damage existing utilities, disrupt utility services where utility lines would be crossed during construction, or require relocation of some utilities. Several of the cumulative projects could also result in damage to existing utilities, disruption of utility services, or relocation of utilities. In particular, the Alameda Siphons Seismic Reliability Upgrade project (Alameda Siphons project) installed new connections between the existing Alameda Siphons and the pipeline that delivers water to the town of Sunol, and constructed a GE pipeline to deliver water to a GE facility to the north. The

Alameda Siphons project also extended the Alameda East Portal Overflow Pipeline to SMP-30 Pit F6, and a portion of the existing overflow pipeline was abandoned in place. If the abandoned pipeline segment were encountered during installation of the proposed backup pipeline, it would be demolished at the crossing.

The Alameda Siphons project also relocated some overhead utilities to underground locations in the southern portion of the SABPL project area and installed Alameda Siphon No. 4 above the existing San Antonio Pipeline and below the Chevron Pipeline. Additionally, other SFPUC projects within the geographic scope of the SABPL project could cause service disruptions for the same set of customers within a short timeframe as a result of the concurrent implementation of SFPUC projects in the Sunol Valley area. Therefore, cumulative impacts related to disruption of utility operations or accidental damage to existing utilities and relocation of regional or local utilities would be significant and the SABPL project's contribution to this cumulative impact could be cumulatively considerable. However, with implementation of project-level mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measures M-UT-1a, Confirm Utility Line Information*
- *Mitigation Measures M-UT-1b, Safeguard Employees from Potential Accidents Related to Underground Utilities*
- *Mitigation Measures M-UT-1c, Notify Local Fire Departments*
- *Mitigation Measures M-UT-1d, Emergency Response Plan*
- *Mitigation Measures M-UT-1e, Ensure Prompt Reconnection of Utilities*
- *Mitigation Measures M-UT-1f, Coordinate Final Construction Plans with Affected Utilities*
- *Mitigation Measures M-UT-1g, Avoidance of Utilities Constructed or Modified by Other SFPUC Projects*
- *Mitigation Measures M-UT-1h, Measures to Protect Alameda Siphons Nos. 1, 2, and 3*

Impact C-BI: Project implementation could result in a cumulatively considerable contribution to cumulative impacts on biological resources during project construction and operation. (Less than Significant with Mitigation)*

Past development, particularly in the northern part of the Sunol Valley near I-680 and elsewhere (such as roadways, mining, and water infrastructure), has resulted in the current condition of the project area, including the relative rarity of special-status species, the degraded state of riparian vegetation and other sensitive natural communities, and the reduced extent of wetlands and jurisdictional waters.

Construction of the SABPL project would result in potentially significant impacts associated with the temporary and permanent loss of habitat and the potential for direct mortality of CRLF, CTS, and Alameda whipsnake, as well as temporary and permanent habitat loss and disruption of breeding and foraging habitat for nesting birds, raptors, and bats. It is assumed that several of the cumulative projects, particularly those projects located in the Sunol Valley, could adversely affect some of the same special-status species, a potentially significant cumulative impact, and the SABPL project's contribution to this impact would be cumulatively considerable.

The proposed project could adversely affect riparian habitat along San Antonio Creek, native trees along Calaveras Road, as well as large, isolated, mature trees. The proposed project could degrade the habitat value of the freshwater marsh located west of the Sunol Valley Chloramination Facility and south of the Alameda Siphons. Several of the cumulative projects could also adversely affect riparian resources and native or mature trees in the region, jurisdictional waters, resident trout and other fishes in San Antonio Creek, trees within the Alameda County right-of-way and protected under the Alameda County Tree Ordinance resulting in a potentially significant cumulative impact, and the SABPL project's contribution to this impact would be cumulatively considerable. CRLF could become entrained in the intakes of the SABPL project dewatering pumps, potentially resulting in mortality of the CRLF. Operational discharges from Pits F3-East and F3-West by Hanson Aggregates could also result in mortality to this species resulting in a significant cumulative impact and the SABPL project's contribution would be cumulatively considerable. However, cumulative impacts would be reduced with project-level mitigation measures.

- *Mitigation Measure M-BI-1a, General Protection Measures*
- *Mitigation Measure M-BI-1b, Worker Training and Awareness Program*
- *Mitigation Measure M-BI-1c, Minimize Disturbance to Riparian Habitat*
- *Mitigation Measure M-BI-1d, Prevent Movement of Specific Species through the Work Areas*
- *Mitigation Measure M-BI-1e, Preconstruction Surveys and Construction Monitoring and Protocols for California Tiger Salamander, California Red-Legged Frog, and Alameda Whipsnake*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration Plan and Compensatory Mitigation*
- *Mitigation Measure M-BI-1g, Measures to Minimize Disturbance to Special- Status Bird Species*
- *Mitigation Measure M-BI-1h, Conduct Preconstruction Surveys for Any Special- Status Bats found and Implement Avoidance and Minimization Measures*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*
- *Mitigation Measure M-BI-3, Avoidance and Protection Measures for Jurisdictional Water Bodies*
- *Mitigation Measure M-BI-7, Screen Dewatering Pump Intakes*

Impact C-GE: Project construction could result in a cumulatively considerable contribution to cumulative impacts related to the loss of topsoil. (Less than Significant with Mitigation)*

The geographic scope of potential cumulative geologic and seismic impacts consists of the project area and immediate vicinity. Geologic and seismic impacts are generally site-specific and depend on the local geology and soil conditions. Past projects, including previous SFPUC water supply projects, and ongoing mining operations, have modified the topographic and geologic landscape in the vicinity of the project area.

The SABPL project would have a significant impact related to soil erosion and loss of topsoil during construction. Most of the cumulative projects listed in Table 5.1-6 could also result in soil

erosion and loss of topsoil, resulting in a significant cumulative impact, and the SABPL project's contribution to this cumulative impact would be cumulatively considerable. However, with implementation of project-level mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant)

- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-BI-1f, Prepare and Implement a Vegetation Restoration and Compensatory Mitigation Plan*

Impact C-HY: Project construction could result in a cumulatively considerable contribution to cumulative impacts on hydrology and water quality. (Less than Significant with Mitigation)*

Construction activities associated with the SABPL project could result in the degradation of water quality from increased soil erosion and associated sedimentation of water bodies, as well as an accidental release of hazardous materials. In addition, discharges of dewatering effluent from excavated areas and treated water in pipelines could also adversely affect water quality. Many of the cumulative projects would also require dewatering groundwater that enters open trenches during construction. Other SFPUC projects, including the Alameda Siphons Seismic Reliability Upgrades project, NIT project, and various pipeline inspection projects also involve discharges of treated water produced during pipeline draining and disinfection. These projects could result in a potentially significant cumulative impact related to degradation of water quality. The SABPL project's contribution to this cumulative impact would be cumulatively considerable. However, with implementation of project-level mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*
- *Mitigation Measure M-HY-1b, Creek Restoration and Revegetation*
- *Mitigation Measure M-HY-3, Management of Dewatering Effluent Discharges*

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

Cumulative impacts related to the presence of hazardous materials in the soil could occur if the SABPL project and cumulative projects would be implemented in the same area at the same time. The construction footprints of the Upper Alameda Creek Filter Gallery (Filter Gallery) project and NIT project would overlap geographically with the SABPL project area, and these projects could have overlapping construction schedules.

The SABPL project would be constructed in an area that was previously used for agricultural purposes and where pesticides were likely used historically; therefore, residual hazardous materials could be present in site soils. Construction of the Filter Gallery project and NIT project would also include excavation within areas that have been previously used for agricultural purposes. Therefore, cumulative impacts related to the exposure of workers and the public to hazardous materials in soil during construction of the SABPL project and these other cumulative projects are considered potentially significant, and the SABPL project's contribution would be cumulatively considerable.

Construction of the SABPL project, as well as construction of other cumulative projects in the Sunol Valley, could result in the accidental release of hazardous construction chemicals into the environment. Cumulative impacts related to the accidental release of hazardous construction chemicals into the environment during construction of the SABPL project and these other cumulative projects are considered potentially significant, and the SABPL project's contribution would be cumulatively considerable.

The SABPL project would involve demolition of two quarry buildings that could contain hazardous building materials. The Calaveras Dam Replacement project would also involve demolition of structures that could contain hazardous building materials. Therefore, cumulative impacts related to disposal of electrical equipment that could contain PCBs, fluorescent light ballasts that could contain DEHP or PCBs, and fluorescent light tubes that contain mercury would be potentially significant, and the SABPL project's contribution would be cumulatively considerable.

With implementation of project-level mitigation measures, the project's contribution to these cumulative impacts would not be cumulatively considerable (less than significant).

- *Mitigation Measures M-HZ-1a, Evaluate Soil Quality*
- *Mitigation Measures M-HZ-1b, Implement a Construction Risk and Spoils Management Plan*
- *Mitigation Measure M-HZ-1c, Hazardous Building Materials*
- *Mitigation Measure M-HY-1a, Preparation and Implementation of a SWPPP*

Impact C-ME: Project construction would result in a cumulatively considerable contribution to cumulative impacts related to mineral and energy resources. (Less than Significant with Mitigation) *

All of the proposed facilities and improvements would be constructed in an area mapped as MRZ-2 and could be underlain by aggregate resources. Several of the cumulative projects would also be located in areas designated as MRZ-2. All of these projects would include construction within an area that contains known aggregate resources, which could result in a significant cumulative impact. However, the SABPL project would not result in the construction of new structures in active mining areas or in areas that would otherwise be available for mining. Therefore, the project's contribution to cumulative impacts related to the loss of availability of mineral resources would not be cumulatively considerable (less than significant). The proposed project and all of the cumulative projects would use energy during construction, which could result in a significant cumulative impact. The SABPL project's contribution to this cumulative impact would be cumulatively considerable. However, with implementation of project-level mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measures M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measures M-AQ-1b, BAAQMD Additional Construction Measures for NOx Reduction*

Impact C-AG: Implementation of the proposed project would result in a cumulatively considerable contribution to cumulative impacts related to the conversion of Unique Farmland to non-agricultural uses. (Less than Significant with Mitigation)*

The geographic scope of cumulative impacts on agricultural resources consists of areas of Unique Farmland within the Sunol Valley. Cumulative impacts on agricultural resources could result if the SABPL project and other cumulative projects in the Sunol Valley caused the permanent conversion of Unique Farmland to non-agricultural use, either through direct changes in land use or through permanent changes from existing conditions. Cumulative impacts related to the permanent conversion of Unique Farmland to non-agricultural use during construction of the SABPL project and Filter Gallery project would be significant, and the SABPL project's contribution to this cumulative impact would be cumulatively considerable. However with implementation of project-level mitigation, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

- *Mitigation Measure M-AG-1, Compensation for Loss of Unique Farmland*

Impacts of Mitigation Measures

Enhancement to grassland at the Goat Rock compensation site and riparian habitat at the San Antonio Creek compensation site that may occur under Measure M-BI-1f (Preparation and Implementation of a Vegetation Restoration Plan and Compensatory Mitigation) could result in environmental impacts. The Goat Rock compensation site and San Antonio Creek compensation site are proposed to provide compensatory mitigation for multiple SFPUC projects in the Sunol Valley, including the Calaveras Dam Replacement project. Selection of the final compensation sites would occur in consultation with USFWS and CDFG and may result in the implementation of habitat enhancement at a compensation site other than Goat Rock or San Antonio Creek.

Compensatory mitigation activities at these sites were previously addressed in the *Final Environmental Impact Report for the San Francisco Public Utilities Commission Calaveras Dam Replacement Project* (San Francisco Planning Department, 2011).

As described in the Calaveras Dam Replacement project EIR (beginning on page 5-14 in Chapter 5, Mitigation Measures), compensatory mitigation and associated ground disturbance could result in impacts on water quality, biological resources, and cultural resources, but these impacts on sensitive wildlife at the compensation sites would be avoided through implementation of measures adopted as conditions of approval for the Calaveras Dam Replacement project, including Mitigation Measure 5.7.1 (to protect and maintain water quality), Mitigation Measure 5.4.1 (to avoid impacts on sensitive wildlife through preconstruction surveys), and Mitigation Measure 5.4.2 (restoration of disturbed areas), and Mitigation Measure 5.10.2 (to mitigate for accidental discovery of archeological resources). In approving the Calaveras Dam Replacement project, the SFPUC adopted a mitigation monitoring and reporting program for the project (SFPUC Resolution No. 11-0015) which includes these mitigation measures; Attachment A to the MMRP identifies the mitigation measures that will be implemented to reduce the secondary impacts associated with construction activities undertaken in creating habitat mitigation sites. The

Commission's CEQA Findings in Resolution No. 11-0015 related to the impacts of implementing biological resources mitigation at Goat Rock and San Antonio Creek (San Antonio Mitigation Area), are incorporated into these findings by this reference, as though fully set forth in these CEQA Findings.

Significant impacts associated with habitat enhancement at an alternate compensation site would be subject to the mitigation measures identified throughout the SABPL Project EIR, as appropriate, to reduce the impacts to a less-than-significant level and would be implemented in accordance with the adopted MMRP.

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

Project Impacts

Based on substantial evidence in the whole record of these proceedings, the SFPUC finds that, where feasible, changes or alterations have been required or incorporated into the project to reduce the significant environmental impacts as identified in the Final EIR and listed below. The SFPUC finds that the mitigation measures in the Final EIR and described below are appropriate, and that changes have been required in or incorporated into the project that, pursuant to Public Resources Code section 21002 and CEQA Guidelines section 15091, may substantially lessen, but do not avoid (i.e., reduce to less than significant levels) the potentially significant environmental effect associated with implementation of the project. The SFPUC adopts all of the mitigation measures proposed in the Final EIR and set forth in the MMRP, attached hereto as Attachment B. The SFPUC further finds, however, for the impacts listed below, despite implementation of mitigation measures, the effects remain significant and unavoidable. Based on the analysis contained within the Final EIR, other considerations in the record, and the standards of significance, the SFPUC finds that because some aspects of the project could cause potentially significant impacts for which feasible mitigation measures are not available to reduce the impact to a less-than-significant level, the impacts are significant and unavoidable.

The SFPUC determines that the following significant impacts on the environment, as reflected in the Final EIR, are 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 SFPUC determines that the impacts are acceptable due to the overriding considerations described in Section VII below. This finding is supported by substantial evidence in the record of this proceeding.

Impact AQ-1: Emissions generated during project construction activities would violate air quality standards and would contribute substantially to an existing air quality violation. (Significant and Unavoidable even with implementation of feasible Mitigation)*

Criteria pollutants would be emitted during construction of all project components. Project construction would generate fugitive dust (including PM₁₀ and PM_{2.5}) during various construction activities, including excavation, grading, demolition, and vehicle travel on both paved and unpaved surfaces. Other criteria pollutants would also be generated from the exhaust emissions of construction equipment and vehicles. Without controls, emissions of these criteria pollutants

could adversely affect the SFBAAB's attainment status relative to state and federal air quality standards.

The *BAAQMD CEQA Guidelines* require quantification of construction-related emissions (equipment exhaust). For all proposed projects, the BAAQMD recommends implementation of all Basic Construction Measures (these measures are included as Mitigation Measure M-AQ-1a, below). If the daily criteria pollutant thresholds of significance for construction activities are exceeded prior to implementing this mitigation, additional construction mitigation measures are recommended.

Emissions from the SABPL project's construction equipment and vehicles would be generated from multiple sources, including heavy mobile equipment and delivery/haul trucks, worker vehicles, and semi-stationary sources such as air compressors and generators. Construction related criteria pollutant emissions were calculated for the SABPL project as a function of construction activity, construction duration, average haul truck mileage, and worker trips (auto/light-truck mileage). The highest average daily quantity of pollutants would be emitted in 2013, the year when most project construction activities would occur. The estimated daily average construction emissions for 2014 would be lower than for 2013 because less construction would occur during these years. Based on the large anticipated heavy-equipment fleet and the worst-case assumption that daily construction activities could involve overlapping construction activities for up to four project elements in 2013 and three elements in 2014, the model results indicate average daily NO_x emissions would substantially exceed the BAAQMD CEQA significance thresholds in 2013 and 2014, a significant impact. Implementation of the mitigation measures identified below would reduce this impact, but not to a less-than-significant level, and the impact would be significant and unavoidable.

- *Mitigation Measure M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measure M-AQ-1b, BAAQMD Additional Construction Measures for NO_x Reduction*

Impact C-AQ: Construction of the proposed project would result in a cumulatively considerable contribution to cumulative air quality impacts associated with criteria pollutant emissions and health risks. (Significant and Unavoidable even with implementation of feasible Mitigation)*

To address cumulative impacts on regional air quality, the BAAQMD has established thresholds of significance for construction-related criteria pollutants and precursor emissions. These thresholds, which have been determined appropriate for use in the project's air quality analysis, represent the levels at which a project's individual emissions of criteria pollutants and precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality violations. If average daily or annual emissions exceed these thresholds, the SABPL project would result in a cumulatively significant impact. Construction-related criteria pollutant and precursor emissions associated with the SABPL project would exceed the BAAQMD significance threshold for NO_x, and the SABPL project's contribution to this cumulative impact would be cumulatively considerable. In addition, the combined health risks from construction related emissions of the SABPL project and other cumulative projects would exceed the BAAQMD's cumulative significance thresholds of 100 excess cancer cases in a million.

Therefore, during construction, the cumulative health risk impacts related to excess cancer would be significant. Even with implementation of the project mitigation measures, NOx emissions and health risks would still exceed the BAAQMD thresholds, and no other feasible mitigation measures have been identified to reduce this impact. Therefore, the impact is considered significant and unavoidable.

- *Mitigation Measures M-AQ-1a, BAAQMD Basic Construction Measures*
- *Mitigation Measures M-AQ-1b, BAAQMD Additional Construction Measures for NOx Reduction*

WSIP Impacts

The Project is a component of the WSIP and, therefore, will contribute to the significant and unavoidable impacts caused by the WSIP water supply decision. Three significant and unavoidable impacts were identified and discussed in this Commission's Resolution No. 08-0200 related to the WSIP water supply decision: **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 this Commission 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. This Commission has already adopted the mitigation measures proposed in the PEIR to reduce these impacts when it approved the WSIP in its Resolution No. 08-0200. This Commission 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 has 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 Creeks (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 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
- Increase delivery reliability
- Meet customer water supply needs through 2018
- Enhance sustainability
- Achieve a cost-effective, fully operational system

The project, as described herein and consisting of the components set forth in the Final EIR, including Pumping Variant 1(a one-step pumping process) in lieu of the two-step pumping process, contributes to achievement of these goals by making it possible to simultaneously discharge quality-impaired Hetch Hetchy water as well as access water supplies stored in San Antonio Reservoir during an emergency outage along the Hetch Hetchy system, which will increase water delivery reliability and help maintain high-quality water. Specific objectives of the Project are to:

- Provide reliable conveyance capacity for emergency discharges of Hetch Hetchy water supplies during events that impair water quality or during facility outages
- Increase operational flexibility and delivery reliability during emergencies and planned maintenance

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 infeasible such Alternatives. In making these 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.

Alternative 1: No Project

Under the No Project Alternative, the San Antonio Pipeline would remain in operation and no improvements would be made to the pipeline. The SFPUC would have sufficient capacity to discharge the future maximum Hetch Hetchy flow of 315 mgd. As with existing operations, the SFPUC’s preferred option would be to pump up to 160 mgd to San Antonio Reservoir or the SVWTP via the existing San Antonio Pipeline in order to conserve the water for future treatment and delivery to customers. However, as occurs under the existing condition, the SFPUC’s ability to conserve the water would be limited by the capacity of the San Antonio Pump Station (160 mgd); when the discharge exceeded the pumping capacity and could not be pumped to the reservoir, flows of up to 230 mgd would instead be discharged by gravity flow to San Antonio Creek via the existing San Antonio Pipeline. At the future maximum flow of 315 mgd, the remaining 85 mgd would be discharged to quarry Pit F6 via the Alameda East Overflow Pipeline constructed as a component of the Alameda Siphons Seismic Reliability Upgrade project.

Without construction of the backup pipeline, the SFPUC would rely on the existing San Antonio Pipeline for both emergency and planned discharges, and the SFPUC would not have the ability to simultaneously discharge Hetch Hetchy water while also conveying 160 mgd of water from the San Antonio Reservoir to the SVWTP, thereby inhibiting the SFPUC’s ability to achieve the WSIP level of service goals. Further, while emergency and planned discharges of up to 160 mgd could be pumped to San Antonio Reservoir via the existing San Antonio Pipeline for future treatment and distribution to customers, the SFPUC would not have the ability to conserve the future maximum flow of 315 mgd.

The maximum capacity of the San Antonio Pipeline is 230 mgd. Thus, when flows are greater than the 230 mgd capacity of the San Antonio Pipeline, the SFPUC would discharge up to 85 mgd of chlorinated water to quarry Pit F6, which would subsequently infiltrate to the groundwater.

The No Project Alternative would not meet either of the project objectives: to provide reliable conveyance capacity for emergency discharges of Hetch Hetchy water during water quality events or facility outages, and to increase the operational flexibility and delivery reliability during emergencies and planned maintenance.

The No Project Alternative would also not provide the operational flexibility and delivery reliability afforded by the Project. Without implementation of the Project, water service to downstream customers could potentially be disrupted, because SFPUC facility operators would not have the ability to simultaneously divert quality-impaired Hetch Hetchy water out of the regional water system while accessing water stored in San Antonio Reservoir to meet customer demand.

Further, the San Antonio Pipeline is susceptible to damage due to corrosion and breakage. If the San Antonio Pipeline failed, there would be no backup pipeline. In the event of failure of the San Antonio Pipeline, the Alameda East Portal Overflow Pipeline (with a capacity of 180 mgd) would be the only pipeline available to convey emergency discharges, and this pipeline alone could not accommodate the future maximum Hetch Hetchy flow of up to 315 mgd. Overall, the No Project Alternative would jeopardize the SFPUC's ability to meet the adopted WSIP goals and objectives.

The No Project Alternative would avoid all construction-related impacts of the Project, including the two significant unavoidable air quality impacts associated with NOx emissions and health risks. This is because the new backup pipeline, chemical facility cutoff wall along the perimeter of Pit F3-East, and ancillary features and other improvements would not be constructed under the No Project Alternative. The two quarry buildings located east of Pit F3-East would not be demolished, thereby eliminating impacts related to hazardous building materials. Similarly, since this alternative would not generate excess spoils, the No Project Alternative would also avoid impacts related the permanent conversion of Unique Farmland to non-agricultural uses.

Energy use during operation would be less under the No Project Alternative because discharges exceeding the capacity of the San Antonio Pump Station would be made to San Antonio Creek via gravity.

The Commission rejects the No Project Alternative 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.

Alternative 2: SABPL Discharges to the Base of Turner Dam

Alternative 2 includes all project components originally proposed for the SABPL project, but represents an environmentally preferable variation of the original project in that it routes the backup pipeline beneath the Turner Dam access road to avoid prehistoric archaeological site SA-1 and to reduce impacts on sensitive biological resources.

Under this alternative, the backup pipeline would be 2 miles long (0.7 mile longer than under the proposed project) and extend between the San Antonio Pump Station and the existing discharge facility at San Antonio Creek at the base of Turner Dam. The backup pipeline would terminate at the existing discharge facility via a new cone valve and outfall to San Antonio Creek. A new electrical control building would be constructed on the south bank of San Antonio Creek. The existing stilling basin within the San Antonio Creek channel would be replaced with a larger stilling basin designed to handle the future maximum Hetch Hetchy flow, and the creek banks immediately downstream of the new and existing cone valves would be reinforced with riprap, or with an environmentally engineered bank stabilization alternative, to protect against bank erosion. As with the proposed project, a new chemical facility would be constructed near the San Antonio Pump Station to dechlorinate and pH-adjust the Hetch Hetchy water prior to discharge. The backup pipeline alignment, the modifications to the existing discharge facility, and the new chemical facility would be designed to accommodate the future maximum Hetch Hetchy flow of 315 mgd. Unlike the project, this alternative would not construct the new discharge facility at Pit F3-East, cutoff wall around Pit F3-East, transfer pipeline, dewatering pipeline, or new electrical transformer; nor would it include the replacement of a segment of potable water pipeline to the town of Sunol. No construction requiring excavations would be necessary in the vicinity of Pit F3-East. Since the cutoff wall would not be constructed, demolition of the two quarry buildings just east of Pit F3-East would not be required. However, like the project, excess spoils generated during construction could be permanently placed in an earthen berm at the North Spoils Site or former nursery site located east of Pit F3-East.

Alternative 2 would fully meet both project objectives. The facility improvements that would be implemented under this alternative would provide reliable conveyance capacity for emergency discharges of Hetch Hetchy water supplies during water quality events or during facility outages because the new facilities would have sufficient capacity to accommodate the maximum future flow of 315 mgd. This alternative would also meet the goal of increasing operational flexibility and delivery reliability during emergencies and planned maintenance because the new backup pipeline could be used for emergency discharges while the existing San Antonio Pipeline was simultaneously being used to convey water stored in San Antonio Reservoir to the SVWTP to meet water demand.

Compared to the project, this alternative would have less substantial impacts related to slope instability during construction because construction activities would not be conducted within the walls of Pit F3-East or any other slope that could become unstable. This alternative would also result in less use of energy during operation compared to the project because all flows exceeding 160 mgd would be discharged via gravity (under the project, all discharges would require pumping from Pit F3-East to San Antonio Reservoir or to the SVWTP). Despite the longer pipeline alignment, this alternative likely would require less excavation than the project because none of the facilities associated with operational discharges to Pit F3-East would be built (i.e., new discharge facility on the southern slope of Pit F3-East, cutoff wall, and dewatering pipeline). Alternative 2 would reduce the severity of Impacts AQ-1 and C-AQ, both of which were determined to be significant and unavoidable under the proposed project, but NO_x emissions likely would still exceed the significance thresholds and the impacts would remain unavoidable even with

mitigation. In addition, the significant cumulative health risk impact under this alternative would be similar to the proposed project.

Overall, however, this alternative could result in greater magnitude long-term impacts when compared to the proposed project. That is, while the backup pipeline would be routed beneath the Turner Dam access road to minimize impacts on the riparian corridor of San Antonio Creek, excavation for the longer backup pipeline (2 miles long versus 1.3 miles long) would likely result in greater impacts on other biological resources. Further, the proposed improvements to the existing discharge facility at San Antonio Creek could result in greater construction-related impacts related to erosion, water quality, aquatic habitat, and special-status species. These improvements, including the new outfall, stilling basin, and riprap, would involve extensive construction within a reach of San Antonio Creek known to provide habitat for special status aquatic species, including California red-legged frog and western pond turtle. This Alternative would result in substantially greater construction-related impacts on water quality and resident trout and other native fish species along San Antonio Creek because of the extensive construction within the creek channel and proximity of pipeline construction activities to the creek.

Although the removal of riparian trees along the San Antonio Creek corridor would be avoided to the extent possible, it is likely that some mature riparian trees could be damaged or would require removal during construction due to their proximity to the access road. Like the project, the pipeline would be installed using open-trench construction methods. Where the alternative alignment crosses Calaveras Road, steel plates would be placed over the trench to maintain traffic flow, and at least one lane would remain open at all times. Construction-related impacts on archaeological site SA-1 would be the same as with the project. However, there could be a greater potential to encounter previously unidentified archaeological and paleontological resources and human remains, given the increased excavation associated with the longer pipeline alignment (2 miles versus 1.3 miles). When compared to the project, opportunities to conserve the discharged water for future delivery to customers would be greatly reduced because under the alternative, when Hetch Hetchy flow exceeded the capacity of the San Antonio Pump Station (160 mgd), the SFPUC would discharge the entire flow to San Antonio Creek.

The backup pipeline alignment under Alternative 2 would cross a Chevron crude oil pipeline that runs along the east side of Calaveras Road, resulting in an increased potential for conflicts with this pipeline. (The crude oil pipeline would not be affected by the project as the alignments do not intersect). Because this alternative would avoid construction near the quarry pits on the west side of Calaveras Road, it would avoid potential conflicts with the South Bay Aqueduct along the northern boundary of the quarry pits. This alternative would also avoid conflicts with the 36-inch-diameter PG&E high-pressure natural gas pipeline because the backup pipeline would veer east across Calaveras Road before this location. The need for groundwater dewatering would be reduced because excavation associated with the cutoff wall around Pit F3-East would not occur, resulting in less substantial water quality impacts related to the discharge of groundwater from construction dewatering. However, even with the use of steel plates across open trenches to maintain traffic flow on Calaveras Road, construction across Calaveras Road and within the access road to Turner Dam could impede access for emergency response vehicles and increase

traffic safety hazards. In addition, in the event of an earthquake, lateral spreading (the horizontal movement of soil due to liquefaction of underlying sediments) could occur along the portion of the pipeline alignment closest to San Antonio Creek, potentially requiring a retaining wall. Like the project, the permanent placement of spoils in an earthen berm at the former nursery site located east of Pit F3-East could result in the permanent conversion of Unique Farmland to non-agricultural uses.

Although this alternative would meet the SFPUC's project objectives, the Commission rejects this alternative as infeasible because it would not result in a substantial environmental improvement as compared to the project. While Alternative 2 would eliminate some significant biological resource impacts identified as a result of the project, this alternative would result in other increased environmental impacts to special-status species and wetland habitat. Moreover, with mitigation, all of the significant biological resource impacts resulting from the project can be reduced to a less than significant level. Alternative 2 would require more maintenance because of its greater length. The significant and unavoidable air quality impacts associated with the project would still occur under Alternative 2. In addition, as compared to the project, Alternative 2 opportunities to conserve discharged water for future delivery to customers would be reduced.

Alternative 3: Aboveground SABPL

Alternative 3 includes all of the same facility components as the project, and the new backup pipeline would be constructed along the same alignment but it would be constructed entirely aboveground instead of below ground. Alternative 3 would substantially reduce earthwork associated with pipeline installation and would reduce disturbance to vegetated areas along the backup pipeline alignment.

The Aboveground SABPL alternative would construct the new backup pipeline along the same alignment, but entirely aboveground. The aboveground backup pipeline would sit on pipe supports approximately 2 to 3 feet in height, and the total height of the 66-inch-diameter pipeline would be approximately 7 to 8 feet above ground surface. The vaults and manhole risers along the backup pipeline alignment would also be constructed above ground. The 12-inch-diameter water pipeline to the town of Sunol would not be constructed under this alternative, but could require replacement at a later date under a separate project. With the exception of the water pipeline to the town of Sunol, this alternative includes all of the same facility components as the Project. As with the Project, all project facilities would be designed with sufficient capacity to accommodate the future maximum Hetch Hetchy flow of 315 mgd.

This alternative would substantially reduce earthwork associated with pipeline installation and would reduce disturbance to vegetated areas along the backup pipeline alignment. Construction of this alternative probably would generate a smaller fraction of excess spoils associated with construction of the backup pipeline under the project. Like the project, excess spoils generated during construction could be permanently placed in an earthen berm at the North Spoils Site or former nursery site located east of Pit F3-East.

Project operations would be the same as those under the project. Alternative 3 would meet the project objectives. Like the project, this alternative would enable the SFPUC to conserve future Hetch Hetchy flow for treatment and distribution to customers. Alternative 3 would meet both project objectives. The new aboveground backup pipeline and associated facilities would provide reliable conveyance capacity for planned and emergency discharges of Hetch Hetchy water because these facilities would be designed to accommodate the future maximum flow of 315 mgd. This alternative would also meet the goal of increasing operational flexibility and delivery reliability during emergencies and planned maintenance because the SFPUC would be able to convey discharges through the new backup pipeline while simultaneously using the existing San Antonio Pipeline to convey water stored in San Antonio Reservoir to the SVWTP to meet water demand. Implementation of Alternative 3 would reduce construction-related impacts in some areas relative to the project. Most importantly, this alternative would reduce the severity of the two significant and unavoidable impacts of the Project - construction-related NOx emissions and the project's contribution to cumulative construction-related NOx emissions and health risk impacts—because the aboveground pipeline would require less excavation and earthwork and would result in a decrease in construction-related NOx emissions when compared to the project. Mitigated emissions in 2013 likely would still exceed the significance threshold of 54 lbs/day assuming concurrent construction of the backup pipeline and facilities associated with operational discharges to Pit F3-East; however, mitigated emissions in 2014 could be reduced to below the significance threshold. The contribution of Alternative 3 to the significant and unavoidable cumulative health risk would also be reduced.

There also would be less potential to encounter previously unidentified archaeological and paleontological resources and human remains because of the reduced excavation associated with the backup pipeline and because the water pipeline to the town of Sunol would not be constructed. Similarly, construction-related impacts on biological resources, including special-status species and sensitive habitats, as well as impacts related to soil erosion, sedimentation of San Antonio and Alameda Creeks, and construction-related effects on resident trout and other native fish species, would be less substantial relative to the project because of the reduced excavation. The need for groundwater dewatering could also be reduced as a result of the reduced amount of excavation, resulting in less substantial water quality impacts related to the discharge of groundwater from construction dewatering. This alternative could avoid conflicts with the PG&E high-pressure natural gas pipelines because the pipeline supports could be placed to avoid these natural gas pipelines.

Like the project, the future maximum Hetch Hetchy flow of 315 mgd would be discharged to Pit F3-East and subsequently pumped to San Antonio Reservoir or the SVWTP. Therefore, operational impacts would be similar to those of the project: there would be no direct discharges to San Antonio or Alameda Creeks, and there would be no related significant adverse effects on resident trout and other native fish species or on water quality from direct discharges. Energy use during operation under this alternative would be the same as under the project. Like the project, the permanent placement of spoils in an earthen berm at the former nursery site would result in the permanent conversion of Unique Farmland to non-agricultural uses. The SFPUC would need

space to inspect and maintain the pipeline, and would not be able to fully screen the 7- to 8-foot-high aboveground backup pipeline from Calaveras Road using vegetation because of the limited space between the pipeline right-of-way and Calaveras Road, and due to restrictions outlined in the SFPUC's Right-of-Way Integrated Vegetation Management Policy, which would prohibit trees from being planted within the right-of-way of the backup pipeline. Therefore, the aboveground pipeline would be visible from Calaveras Road, a designated scenic roadway, particularly along the 6,200 feet where the backup pipeline would parallel the road. Since the opportunities to screen the backup pipeline are limited, the visibility of the aboveground backup pipeline from Calaveras Road would result in a significant and unavoidable impact on scenic resources and could also adversely affect the character of the project vicinity.

In addition, the aboveground backup pipeline would be less secure than the belowground pipeline planned under the Project, making it more vulnerable to vandalism.

The Commission rejects this alternative as infeasible because it decreases delivery reliability due to more above-ground pipes; the additional above-ground pipes pose security issues which could adversely affect operation of the regional water system pursuant to the goals and objectives of the WSIP; and the visibility of the above-ground pipelines would permanently degrade scenic views from Calaveras Road and could adversely affect the character of the project vicinity.

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 enable system operators to address emergency water quality issues that occur east of the Sunol Valley by diverting quality impaired Hetch Hetchy water out of the regional system.
- The new chemical facility will increase the existing treatment capacity of the system, and allow for pH adjustment and removal of chlorine residual prior to discharges to Pit F3-East or diversions to San Antonio Reservoir.
- The replacement of a portion of the oversized 36-inch diameter segment of a pipeline that serves the town of Sunol will address potential water quality issues associated with “water aging.” Water aging can occur when oversized facilities restrict flow and water exchange in the system. As water ages, its quality degrades because residual disinfectant levels decrease and the formation of some disinfection byproducts increases, and low residual chlorine levels can allow bacteria to colonize in pipes.
- The project will improve response times and allow for faster redirection of flow, minimizing the potential for chlorinated discharges to water bodies. Under existing conditions and without implementation of the SABPL project, during both planned and emergency operations, system operators are required to manually adjust transfer control valves to redirect flow to San Antonio Creek. In addition, if water facilities located west of the Sunol Valley were temporarily unable to convey the entire capacity of system flows following a seismic event, chlorinated Hetch Hetchy water will exit the system through the Alameda East Portal Overflow Pipeline until operators were able to redirect the flow. With the project, the transfer control valves will be automated, allowing operators to more quickly redirect flow and to treat the water prior to discharge, thus minimizing the potential for chlorinated discharges to water bodies.
- The project will provide a partial backup transmission pipeline for the 5,400-foot-long segment of the existing San Antonio Pipeline along Calaveras Road. Installation of the cross-connecting air gaps between the existing San Antonio Pipeline and the proposed backup pipeline will allow sections of either pipeline to be isolated for maintenance or repairs while making it possible for system operators to direct flow to or from San Antonio Reservoir.

In addition, the project will further the WSIP’s goals and objectives. In particular, this project helps to implement the following benefits of the WSIP:

- The project will improve system operators’ ability to respond to emergencies, thus helping the SFPUC to fulfill the WSIP objective of minimizing the risk of service interruption due to unplanned facility upsets or outages.
- The project will assist the SFPUC in fulfilling the WSIP objective of providing clean, unfiltered water originating from Hetch Hetchy Reservoir. As part of the requirements for maintaining its “filtration avoidance” status the SFPUC seeks to proactively identify potential sources of quality-impaired water and develop operational procedures either to prevent contamination from occurring or to divert the water out of the system. With implementation of the SABPL project, SFPUC system operators would be able to divert quality-impaired Hetch Hetchy water out of the regional system under future flow conditions via the proposed backup pipeline to Pit F3-East, thereby maintaining the filtration avoidance status.

- The new chemical facility will assist the SFPUC in fulfilling the WSIP system performance objective of continuing to implement watershed protection measures by preventing discharges of treated water supplies into waters of the United States or waters of the state. Both with and without project implementation, an emergency discharge of Hetch Hetchy water could be necessary following a seismic event west of the Sunol Valley (e.g., on the Hayward fault) if water facilities in this area were temporarily unable to convey system flows. Implementation of the project could make it possible to simultaneously discharge quality-impaired Hetch Hetchy water as well as access water supplies stored in San Antonio Reservoir during an emergency outage along the Hetch Hetchy system, thereby helping the SFPUC to achieve the WSIP level of service objective for 2030 of providing 300 mgd when one water source is unavailable.
- The project will also assist the SFPUC in achieving the WSIP objective of providing operational flexibility to allow for planned maintenance and shutdown of individual facilities, without interrupting customer service.

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.