Appendix A

Notice of Preparation and Scoping Report

SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT

ENVIRONMENTAL IMPACT REPORT

FINAL SUMMARY OF PUBLIC SCOPING COMMENTS

OCTOBER 2007

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Appendices

Introduction

The San Francisco Planning Department's Major Environmental Analysis Division (MEA) is preparing an Environmental Impact Report (EIR) for the Sunol Valley Water Treatment Plant (SVWTP) Improvement Project (hereinafter referred to as "the SVWTP Improvement Project" or "the project"). Pursuant to the requirements of the California Environmental Quality Act (CEQA), MEA released a Notice of Preparation (NOP) on August 3, 2007, and held a Scoping Meeting on Wednesday, August 22, 2007. The scoping meeting was held at the Sunol Glen School at 11601 Main Street in Sunol, California, and six people attended. The purpose of the scoping meeting was to present a project description and receive verbal comments regarding the scope of the project EIR. Written comments were received by MEA between August 3 and September 18, 2007. This report summarizes the key subjects raised at the scoping meeting, both verbally and in writing, concerning the scope of the EIR.

Project Description

The SFPUC proposes to add an additional 40 million gallon per day (MGD) of treatment capacity at the existing SVWTP, construct a new treated water reservoir facility adjacent to the SVWTP, and construct an additional treated water conveyance pipeline (hereinafter referred to as "the SVWTP Improvement Project" or "the project"). The proposed alignment for the new conveyance pipeline from the SVWTP generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles[1]. The entire project is contained within the Alameda Creek watershed. The purpose of the project is to increase the total sustainable treatment capacity (the highest rate at which plant production can be expected to meet water quality requirements for a period of 60 days, given normal source water conditions) of the SVWTP from 120 MGD to 160 MGD, meet California Department of Health Services requirements for treated water reservoir storage, and provide an additional conveyance pipeline to add transmission capacity to the SFPUC regional water system in the Sunol Valley and alleviate disruption of operations in the event of an earthquake.

Key features of the project would include:

- Construction of a new concrete structure at the existing SVWTP to house a flocculation basin, a sedimentation basin, and a filter bay, resulting in 40 MGD of increased treatment capacity[2]
- Construction of a new 17.5-MGD treated water reservoir north of the SVWTP
- Installation of a new three-million-gallon chlorine contact tank adjacent to the new reservoir
- Excavation surrounding the SVWTP and reservoir sites to accommodate the new/expanded structures
- Installation of pipes, flow meters, and other infrastructure associated with new/expanded structures
- Excavation for and installation of a new treated water conveyance pipeline between the proposed treated water reservoir to the south and the Alameda West Portal to the north[1]
- Temporary spoils and groundwater processing activities during construction
- Spoils transportation and disposal activities

[1] After release of the NOP and the scoping meeting, the portion of this pipeline extending from the proposed Calaveras Pipeline Intertie to the Alameda West Portal was removed from the proposed project.
[2] After release of the NOP and the scoping meeting, the sedimentation and flocculation basins were removed from the proposed project.

Scoping Process

Discretionary actions by state and local agencies are subject to review under the California Environmental Quality Act (CEQA) before project approvals can be issued. The purpose of review under CEQA is to inform governmental decision-makers and the public about potentially significant environmental affects of proposed projects and possible ways to avoid or substantially reduce those impacts.

Scoping was conducted for the SVWTP Improvement Project to assist the MEA, which is the lead agency under CEQA, in identifying the range of alternatives, potentially significant environmental effects, and possible mitigation measures. Scoping is a process whereby, early in the environmental review process, the lead agency seeks input from other agencies and the public.

Noticing and Publicity

Throughout the Scoping Phase of the project, input was sought from the public and regulatory agencies to assist in identifying a range of alternatives, potentially significant environmental effects, and possible mitigation measures.

The NOP was distributed to the State Clearinghouse and mailed to governmental agencies with potential interest, expertise, and/or authority over the project. The public notification process also included posting and mailing meeting flyers, as well as publication of a newspaper notice. Notification materials and the NOP are included in the Appendix.

Comments Received

Eight emails and letters were received during the scoping period. These are listed below in Table 1.

Table 1. Summary of Comments Received During the Scoping Period.

Commenter	Date of Letter/ Email
Steve Lawrence, Citizen's Advisory Committee	August 2, 2007
San Francisco Bay Regional Water Quality Control Board	August 17, 2007
East Bay Municipal Utilities District	August 27, 2007
Alameda County Water District	August 31, 2007
Jeff Miller, Alameda Creek Alliance	August 31, 2007
East Bay Regional Parks District	September 4, 2007
California Department of Toxic Substance Control`	September 6, 2007
Department of Water Resources	September 10, 2007

In addition, verbal comments were received at the Scoping Meeting from Jeff Miller representing the Alameda Creek Alliance and local resident Stan Garcia.

Summary of Verbal & Written Comments

The following summarizes verbal comments received at the scoping meeting and written comments received from regulatory agencies and the public during the scoping comment period. Comments in their entirety are located in the Appendix. This is not intended as a verbatim or comprehensive list of issues raised in comment, but rather to summarize notable concerns.

Project Description

- Is there a pipeline into the plant?
- How long is the pipeline?
- Does pipeline construction require a separate lease?
- Locate the pipeline outside the boundaries of the nearby ranch property.
- Is the filter bay new?
- What is the project cost?
- What is the project schedule?
- What is the scheduled EIR certification date?
- Replace the existing Alameda Creek bridge crossings with crossings that do not have footings in the active channel.

Aesthetics

- Plant trees along the north side of the water treatment plant to prevent lighting from being visible at the nearby ranch property.
- Plant trees along the north edge of the Garcia Ranch property to block any lighting from the Alameda West Portal area.

Biological Resource Concerns

- Special status species known to occur in the project area are California tiger salamander (CTS), California red-legged frog (CRLF), rainbow/steelhead trout, foothill yellow-legged frog, Western pond turtle, and Pacific lamprey. CTS and CRLF may breed in the project area.
- The project site is designated critical habitat for the CRLF. If a federal permit is required for the project, the U.S. Army Corps of Engineers should consult with the U.S. Fish and Wildlife Service to ensure that critical CRLF habitat is not destroyed or adversely affected by the project.
- Conduct a CTS breeding survey, and determine migration corridors and dispersal sites.
- CTS road-kill was found on Calaveras Road (north of Welch Creek Road) during the 2001 breeding season. Implement avoidance and minimization measures for construction traffic during the CTS breeding season.
- Determine whether there are nesting birds in the riparian areas adjacent to the project site.
- Survey for grassland birds, such as western burrowing owl, golden eagle, loggerhead shrike, northern harrier, white-tailed kite, and prairie falcon. Discuss potential impacts on these species in the EIR.
- Discuss whether the project would result in reduced water levels in the Calaveras Reservoir such that fish habitat would be negatively impacted.
- Implement a 100-foot setback from Alameda Creek to protect the riparian corridor.
- Prevent cumulative and indirect impacts on wetlands.

Hazards and Hazardous Materials

- Develop a hazardous materials management plan.
- Discuss the results of environmental assessments for contaminated groundwater in the EIR.
- Discuss remediation activities, cleanup levels, and regulatory agency oversight of hazardous materials cleanup.
- Discuss the potential impacts of remediation activities in the EIR. If remediation activities include soil excavation, discuss the following in the EIR:
  - Air quality and health impacts.
  - Applicable local standards, including dust and noise regulations.

    - Transportation impacts.
    - Risk of upset in the event of an accident during cleanup.
- Ensure that the Alameda County Water District is notified in the event of a hazardous materials spill due to construction or post-construction activities.
- There were two chlorine spills from the SVWTP in 2002, resulting in the loss of aquatic life in Alameda Creek for 1,000 yards downstream from the SVWTP. To address the potential for future spills, develop a plan detailing chemical spill prevention measures, as well as containment, cleanup, and mitigation measures in the EIR.
- Sample the soil and groundwater at locations where hazardous substance releases may have occurred due to current or past chemical use.
- Conduct any hazardous materials sampling prior to, or in conjunction with, the preparation of the EIR.
- Discuss the sampling results, criteria and screening levels, and the potential human and environmental health risks in the EIR.
- Discuss historic and current pesticide use at the adjacent nursery sites.

Hydrology/Water Quality Concerns

- Discuss cumulative impacts on water quality due to sedimentation, erosion, increased flooding, and reduced water supply.
- Discuss whether the project would result in increased rates of water diversion and storage at the Alameda Diversion Dam and Calaveras Reservoir.
- Take steps to avoid impacts on the hydrology and water quality of Alameda Creek, such that downstream beneficial uses are not impaired.
- Take steps to avoid impacts on the hydrology and water quality of Alameda Creek, such that groundwater recharge is not impaired.
- Evaluate hydrology and water quality impacts related to dewatered groundwater discharge.
- If approval can be obtained from the appropriate sanitary sewer agency, dewatered groundwater should be discharged to the sanitary sewer. If this is infeasible, seek coverage under a State Water Resources Control Board General National Pollutant Discharge Elimination System (NPDES) dewatering permit. If dewatered groundwater is tested for pollutants and found to be clean, the water may be discharged to a storm drain following proper treatment.
- The project should first attempt to avoid and minimize impacts on state and federal waters. If impacts are unavoidable, appropriate mitigation measures should be implemented.
- If necessary, obtain Clean Water Act, Section 401 and 404 permits for impacts on state and federal waters.
- Perform a delineation of on-site waters of the State and submit it to the San Francisco Bay Regional Water Quality Control Board for approval.
- If the project involves discharging pollutants to waters of the State (even if such waters have been excluded from federal CWA jurisdiction), a Report of Waste Discharge may be required.
- File a Notice of Intent and obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activities.
- Minimize impervious surfaces in the project design.
- Develop a long term Storm Water Management Plan to manage post-construction storm water quality.
- Mitigate for 80-90% of the average annual runoff from impervious surfaces created by the project through implementation of appropriate BMPs.
- Use appropriate erosion and runoff control measures.

- The California Department of Fish and Game may require a Lake or Streambed Alteration Agreement for work within the creek channel.
- Circular steel or concrete tanks are not within Department of Water Resources jurisdiction. Consult with the appropriate local agency regarding permitting for this project.

Recreation

- The project has the potential to impact the following East Bay Regional Park District recreational facilities: Sunol Regional Wilderness, Ohlone Regional Wilderness, Del Valle Regional Park, and Vargas Plateau. The project also has the potential to affect the following existing and planned regional trails: Ohlone Wilderness Trail, Mission Peak to Vargas Plateau Trail, Sunol to Pleasanton Ridge Trail, and Niles Canyon Trail.

Notice of Preparation

SAN FRANCISCO
PLANNING DEPARTMENT

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

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

August 3, 2007

To Responsible Agencies, Trustee Agencies, and Interested Parties:

RE: CASE NO. 2006.0137E – SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

A Notice of Preparation (NOP) of an environmental impact report (EIR) pursuant to the California Environmental Quality Act (CEQA) and a Notice of Public Scoping Meeting for the above referenced project, described below, has been issued by the San Francisco Planning Department. The NOP and Notice of Public Scoping Meeting is either attached or is available upon request from Chris Kern, whom you may reach at (415) 575-9037, voice; (415) 558-6409, fax; chris.kern@sfgov.org; or by mail at 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479. The combined NOP/Notice of Public Scoping Meeting is also available online at: http://www.sfgov.org/site/planning/mea.

Project Description: The SFPUC proposes to add an additional 40 million gallon per day (mgd) of treatment capacity at the existing Sunol Valley Water Treatment Plant (SVWTP), construct a new treated water reservoir facility adjacent to the SVWTP, and construct an additional treated water conveyance pipeline (hereinafter referred to as "the SVWTP Improvement Project" or "the project"). The proposed alignment for the new conveyance pipeline from the SVWTP generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles. The entire project is contained within the Alameda Creek watershed. The purpose of the project is to increase the total sustainable treatment capacity (the highest rate at which plant production can be expected to meet water quality requirements for a period of 60 days, given normal source water conditions) of the SVWTP from 120 mgd to 160 mgd, meet California Department of Health Services requirements for treated water reservoir storage, and provide an additional conveyance pipeline to add transmission capacity to the SFPUC regional water system in the Sunol Valley and alleviate disruption of operations in the event of an earthquake.

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- Excavation for and installation of a new treated water conveyance pipeline between the proposed treated water reservoir to the south and the Alameda West Portal to the north
- Temporary spoils and groundwater processing activities during construction

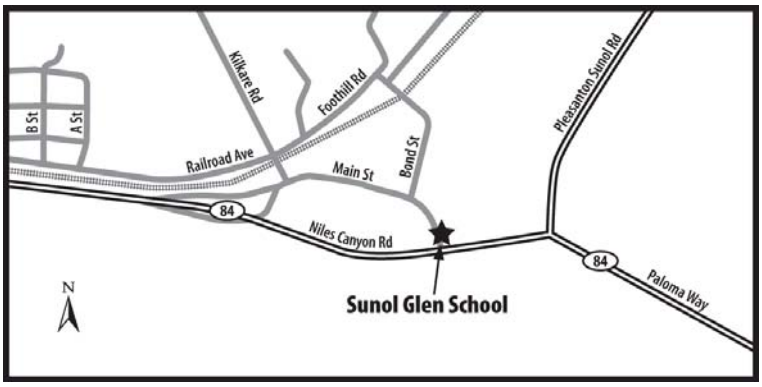
- Spoils transportation and disposal activities

The San Francisco Planning Department's Major Environmental Analysis Division (MEA) is preparing an EIR for consideration by decision makers prior to a final decision by the SFPUC regarding whether to approve and implement the project. The purpose of the EIR is to provide information about potentially significant adverse environmental effects of the proposed project, to identify possible ways to minimize those potentially significant adverse effects, and to describe and evaluate feasible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove the proposed project. However, prior to making any such decision, the decision makers must review and consider the information contained in the EIR.

The San Francisco Planning Department will hold a PUBLIC SCOPING MEETING at the location, date, and time listed below. The purpose of this meeting will be to receive oral comments that will assist the San Francisco Planning Department in reviewing the scope and focus of the project's environmental impact analysis and information to be contained in the EIR. The public will have the opportunity to comment and offer testimony for consideration. The San Francisco Planning Department will also accept written comments at the meeting or by mail, email, or fax until the close of business on September 4, 2007. Written comments should be sent to the San Francisco Planning Department, Attn: Paul Maltzer, Environmental Review Officer, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or sent by email to chris.kern@sfgov.org.

Scoping Meeting

Sunol Glen School
Wednesday, August 22, 2007
6:30 p.m., starting promptly
Sunol Glen School
11601 Main Street
Sunol, California 94586



If you work for an agency that is a Responsible or Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency. If you have questions concerning environmental review of the proposed project under CEQA, please contact Chris Kern at (415) 575-9037.

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

Date of this Notice:	**August 3, 2007**	
Lead Agency:	San Francisco Planning Department	
Contact Person:	Chris Kern	**Telephone:** (415) 575-9037
	Email: chris.kern@sfgov.org	**Facsimile:** (415) 558-6409
Project Title:	Sunol Valley Water Treatment Plant Improvement Project	
Project Sponsor:	San Francisco Public Utilities Commission	
Contact Person:	Kent Nelson	**Telephone:** (415) 554-2473
	Email: KNelson@sfwater.org	**Facsimile:** (415) 934-5750
Project Address:	8653 Calaveras Road	
	Sunol, CA 94586	
County:	Alameda County	
Assessor's Parcel Number:	Various	

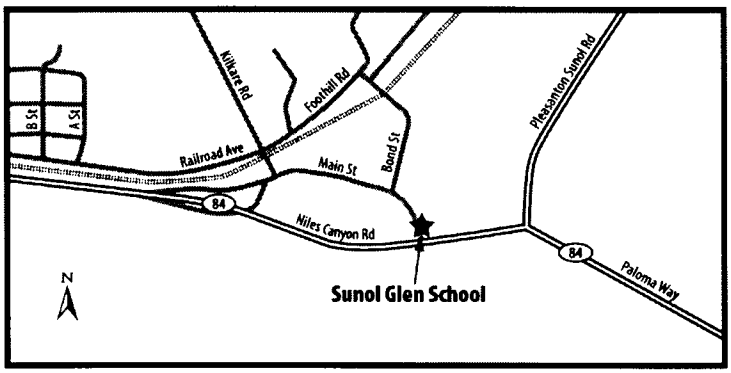
Project Description: The SFPUC proposes to add an additional 40 million gallon per day (mgd) of treatment capacity at the existing Sunol Valley Water Treatment Plant (SVWTP), construct a new treated water reservoir facility adjacent to the SVWTP, and construct an additional treated water conveyance pipeline (hereinafter referred to as "the SVWTP Improvement Project" or "the project"). The proposed alignment for the new conveyance pipeline from the SVWTP generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles. The entire project is contained within the Alameda Creek watershed. The purpose of the project is to increase the total sustainable treatment capacity (the highest rate at which plant production can be expected to meet water quality requirements for a period of 60 days, given normal source water conditions) of the SVWTP from 120 mgd to 160 mgd, meet California Department of Health Services requirements for treated water reservoir storage, and provide an additional conveyance pipeline to add transmission capacity to the SFPUC regional water system in the Sunol Valley and alleviate disruption of operations in the event of an earthquake.

Please see the attached for more information about the proposed SVWTP Improvement Project, the scope of the EIR, and the anticipated environmental issues.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT. AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance).

The San Francisco Planning Department will hold a **PUBLIC SCOPING MEETING** pursuant to the State of California Public Resources Code Section 21083.9 and California Environmental Quality Act Guidelines Section 15206 to receive oral comments concerning the scope of the EIR at the following location, date, and time:

August 22, 2007; 6:30 PM
Sunol Glen School
11601 Main Street
Sunol, CA 94586.



The purpose of this meeting is to receive oral comments that will assist the San Francisco Planning Department in reviewing the scope and focus of the project's environmental impact analysis and information to be contained in the EIR. The public will have the opportunity to comment and offer testimony for consideration. The San Francisco Planning Department will also accept written comments on the scope of the EIR at the meeting or by mail, email, or fax until the close of business on September 4, 2007. Written comments should be sent to the San Francisco Planning Department, Attn: Paul Maltzer, Environmental Review Officer, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or sent by email to chris.kern@sfgov.org.

Documents relating to the proposed project are available for review, by appointment, at the San Francisco Planning Department's Major Environmental Analysis office, 1650 Mission Street, Suite 400. Please call Chris Kern at (415) 575-9037 to make an appointment. Documents are also available online at:
http://www.sfgov.org/planning/mea

August 3, 2007
Date

Carol Roos for
Paul E. Maltzer, Environmental Review Officer

中文資料請電：558-6282
Para sa impormasyon sa Tagalog tumawag sa: 558-6251
Para información en Español llamar al: 558-6307

SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT

CASE NO. 2006.0137

1.0 OVERVIEW

1.1 San Francisco Water System and the Sunol Valley Water Treatment Plant

The City and County of San Francisco, through the San Francisco Public Utilities Commission (SFPUC), owns and operates a regional water system that extends from the Sierra Nevada Mountains to the San Francisco Bay Area, as shown in Figure 1. The regional water system serves 2.4 million people in San Francisco, San Mateo, Santa Clara, Alameda, and Tuolumne Counties. The basic network of major facilities in the regional system was built from the late 1880s through the 1930s and Improvement and improvements of the major facilities continued through the 1970s. The Sunol Valley Water Treatment Plant (SVWTP) primarily treats water from the San Antonio and Calaveras Reservoirs to augment flow from Hetch Hetchy Reservoir in the Sierra Nevada Mountains, especially when Hetch Hetchy facilities are unavailable due to maintenance. The facility also treats Hetch Hetchy water when that supply is unable to comply with drinking water standards due to high turbidity events. Water treated at the SVWTP flows northward in a pipeline along the east side of Sunol Valley to the SFPUC's regional water transmission system.

The SFPUC proposes to add an additional 40 million gallon per day (mgd) of treatment capacity at the existing Sunol Valley Water Treatment Plant (SVWTP), construct a new treated water reservoir facility adjacent to the SVWTP, and construct an additional treated water conveyance pipeline (hereinafter referred to as "the SVWTP Improvement Project" or "the project"). The proposed alignment for the new conveyance pipeline from the SVWTP generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles. The entire project is contained within the Alameda Creek watershed, as shown in Figure 2. The purpose of the project is to increase the total sustainable treatment capacity (the highest rate at which plant production can be expected to meet water quality requirements for a period of 60 days, given normal source water conditions) of the SVWTP from 120 mgd to 160 mgd, meet California Department of Health Services requirements for treated water reservoir storage, and provide an additional conveyance pipeline to add transmission capacity to the SFPUC regional water system in the Sunol Valley and alleviate disruption of operations in the event of an earthquake.

The SFPUC developed a regional Water System Improvement Program (WSIP) in February 2005 (see www.sfwater.org). The basic goals of the WSIP are to increase the reliability of the system with respect to water quality, seismic response, water delivery, and water supply to meet water purchase requests in the service area through the year 2030.

These goals and objectives provide the basis for a series of facility improvement projects that the SFPUC would implement throughout the regional water system and for the implementation of water supply options to meet future annual water delivery needs during normal (non-drought) years, as well as current and future needs during droughts. Implementation of the SVWTP Improvement Project would help meet the system performance objectives of the WSIP.

1.2 Environmental Review Process

The San Francisco Planning Department, Major Environmental Analysis (MEA) Division will prepare an Environmental Impact Report (EIR) to evaluate the environmental effects of the SVWTP Improvement Project. The EIR will be a Project EIR, as defined in California Environmental Quality Act (CEQA) Guidelines Section 15161, and will address the project-specific impacts of the proposed project related to construction and operation.

The first step in the environmental review process is the formal public scoping process, for which this Notice of Preparation has been prepared. The scoping comment period will commence on August 3, 2007 and extend for thirty days, until the close of business on September 4, 2007. Following the scoping period, the San Francisco Planning Department will prepare a Draft EIR and circulate it for a 45-day public review period. Public comments on the Draft EIR will be accepted in writing or orally at a formal public hearing to be held by the San Francisco Planning Commission during the public review period for the document. The San Francisco Planning Department will prepare written responses to comments on environmental issues raised during the public comment period and, if necessary, will revise the EIR to reflect clarifications or alterations of environmental analysis that arise during the public review process. The Responses to Comments document will be considered by the San Francisco Planning Commission, along with the Draft EIR and any revisions to the Draft included in the Responses to Comments, for certification as a Final EIR.

1.3 Public Scoping Meeting

The San Francisco Planning Department will hold a public scoping meeting at the following location, date, and time:

Sunol Glen School
11601 Main Street
Sunol, CA 94586
August 22, 2007; 6:30 PM

The purpose of the scoping meeting is to assist the San Francisco Planning Department in determining the proposed scope and content of the EIR summarized in this NOP. The public will have the opportunity to comment and offer testimony for consideration. The San Francisco Planning Department will also accept written comments at the scoping meeting, or by mail, fax, or email, until the close of business on September 4, 2007. Written comments may be sent by mail to the San Francisco Planning Department, Attn: Paul Maltzer, Environmental Review Officer, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or by email to chris.kern@sfgov.org.

2.0 PROJECT DESCRIPTION

The proposed project entails improvements to the SFPUC's water treatment, storage, and conveyance system. The project is located at and near the existing SVWTP in the Sunol Valley area of central Alameda County. The SVWTP is located approximately three miles south of the intersection of Calaveras Road and Interstate-680. The alignment for the new conveyance pipeline generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles. The entire project is contained within the Alameda Creek watershed.

The proposed project would be constructed in two phases. The first phase would include adding 40 million gallons per day (mgd) of treatment capacity to the existing SVWTP, construction of a new 17.5-million gallon (mg) capacity treated water reservoir, modifications to the disinfection system, and associated infrastructure improvements. The second phase would include construction of a new water

conveyance pipeline connecting the improved/augmented treatment and storage facilities to the Alameda Siphons. The construction schedule for the first phase would be September 2009 to January 2013; second phase August 2010 to August 2012.

Project features (shown on Figures 3a and 3b) would be constructed and installed both above and below ground, and would require excavation, with much of the spoils to be disposed off-site in a designated location shown on Figure 3b. The majority of the pipeline construction would be completed during the dry season. Specifics of the various project elements are described further below.

Phase I

Capacity Expansion.

Major features of the water treatment capacity expansion portion of the project include:

- Construction of a new concrete structure on the southwestern-facing side of the existing plant to house a flocculation basin, a sedimentation basin, and a filter bay. The aboveground portion of the flocculation and sedimentation structure would be approximately 64 feet wide and 200 feet long. Below ground there would be an additional access gallery 10 feet wider than the aboveground portion. The attached filter bay would be approximately 205 feet long and 88 feet wide. The top of this structure would be approximately eight feet above the finished grade on the eastern side. A cut-slope (1.5H:1V) of 20 feet in height is proposed on the western side;
- Expansion of the existing flow distribution chamber;
- Installation of new flow meters within new below-ground vaults (16 feet by 12 feet);
- Installation of new pipes to connect various project facilities;
- Modifications to the existing flash mix facilities to add new mixing equipment;
- Replacement in kind of the two existing backwash pumps;
- Replacement of two existing diesel driven emergency generators with one new diesel-driven two mega-watt unit;
- Construction of a new 30' x 36' concrete block building to house blowers and electrical gear;
- Modifications to the existing electrical system;
- Upgrade of the plant's instrumentation and controls system and operator interfaces; and
- Widening of the paved roadway between the existing treatment trains and the newly proposed treatment train, by a width of three feet over a distance of 600 feet.

The new flocculation, sedimentation and filtration facilities would be located in the low hillside directly west of the plant roadway that encircles the existing facility. The top of this hillside is approximately 15 feet above the roadway. This is an area that has been graded and improved as part of previous plant construction project and includes non-irrigated grass and non-native shrubs and trees. The belowground access gallery for the new facility would be connected to the existing belowground access gallery by a tunnel beneath the roadway.

Treated Water Reservoir.

Major features of the treated water reservoir portion of the project include:

- Construction of a new 17.5-mg treated water reservoir of pre-stressed concrete, 340 feet wide and approximately 35 feet high. The circular structure would be located northwest of the existing treatment plant;
- Excavation for the new reservoir and construction of a retaining wall surrounding the west, south, and east sides of the structure;
- Installation of a new three-million-gallon chlorine contact tank south of the new reservoir. The tank may be either buried on three sides; the open side facing northward toward the reservoir or unburied with a retaining wall on the three sides facing the earth;

- Clearing and grading a new 12'-wide paved access roadway around the treated water reservoir;
- Construction of a new chemical feed facility adjacent the chlorine contact tank, with a roof-shade structure and open-sides enclosed with chain-link fencing. The facility would house new chemical feed pumps, meters, and ancillary feed equipment, as well as two 10,000-gallon ammonia storage tanks, two 13,000-gallon sodium hypochlorite tanks and two 5,000-gallon hydrofluosilicic tanks;
- Construction of a new chemical truck unloading station along the existing access road;
- Installation of new pipes to connect various project facilities; and
- Installation of new lighting features to ensure safety/security at the new facilities.

Excavation would be required for several of the project features, as many would be constructed/installed below ground or otherwise require grade modification and retaining walls. A relatively small portion of the excavated material would be used as structural backfill for the completed structures, but most would be exported off-site. Accounting for an anticipated swell factor, there would be a total of approximately 384,000 cubic yards (CY) of material requiring off-site disposal at a designated location. The proposed reuse and disposal site is shown on Figure 3b. Erosion control measures, such as hydro-seeding, would be implemented at the proposed spoils reuse and disposal site.

Construction access for work at the SVWTP would be from I-680, onto Calaveras Road and then to the existing treatment plant access road. The contractor's construction staging area for the treatment plant improvements, shown on Figure 3a, would be located between Alameda Creek and Calaveras Road, directly south of the existing treatment plant access road, on a site currently occupied by a nursery operation. The area required is approximately four acres. Material excavated from the treated water reservoir site would be transported to the spoils reuse and disposal site via a temporary haul road (shown on Figures 3a and 3b).

Groundwater may be encountered at the excavation sites of both the treatment capacity expansion and treated water reservoir components of the proposed project. Additional investigation would be conducted as part of environmental review of this project to evaluate the potential for presence of contaminated groundwater. Groundwater removed by dewatering during construction would be discharged to Alameda Creek after sediment is removed, according to SFPUC's standard construction measures. The project would also entail flushing the new treatment facilities, the new reservoir, new tanks, and new and existing pipelines before the system is put into service. Except for the new treatment facilities, all of these must also be disinfected prior to operation. Depending on the time of year, actual water demands, and operating requirements at the time of the work, the water would be pumped back to the SVWTP for treatment or pumped to San Antonio Reservoir, after dechlorination and pH balancing.

Phase II

New Conveyance Pipeline

The second phase of the project includes installation of a new treated water conveyance pipeline between the proposed treated water reservoir to the south and the Alameda Siphons to the north. This pipeline would provide an additional treated water conveyance pipeline that would avoid crossing earthquake fault lines, thereby reducing the potential for service disruption in the event of an earthquake (the existing alignment, which generally follows Calaveras Road, is underlain by the Calaveras Fault and is subject to fracture in a seismic event.) The existing treated water conveyance pipeline would remain active. The selection of the proposed alignment, shown on Figures 3a and 3b, followed a review of environmental constraints and, to the greatest extent feasible, the alignment has been designed to avoid steep, heavily wooded slopes; avoid native trees; to minimize impacts on Alameda Creek; and to minimize encroachment on private property. However, the proposed alignment requires two crossings of Alameda

Creek, as evident on Figures 3a and 3b. In addition, two valve vaults would be installed along the proposed pipeline alignment. The southern-most vault would house two motor-operated valves that would be used to transfer treated water through one of the two conveyance pipelines during periods of maintenance or emergency. The northern-most vault would contain a pressure-regulating valve necessary to control flow into the regional conveyance system.

The staging area for pipeline installment would be provided on the southern portion of the nursery parcel, as shown in Figure 3a. Construction access must accommodate relatively large pieces of construction equipment, pipe material, imported rock for the pipe bedding and surrounding envelope, spoils hauling operations, and construction crews. Access and staging areas would be used dependent on their proximity to construction activities, thereby eliminating the need for an equipment bridge across Alameda Creek. Crossing of the creek to move equipment and install the pipeline would occur during the dry season and only across dry reaches of the creek.

Trenching and pipeline installation would require excavation of earth material. Surface-level material would be used to provide surface cover at the conclusion of the project's backfill operation. Excess material equivalent to the volume of the pipeline would be hauled to the spoils reuse and disposal site, the primary disposal site for all components of the proposed project. Spoils volume, including consideration for a 20 percent swell factor, is estimated at 25,400 (CY) for the entire pipeline alignment, including 14,400 east of Alameda Creek and 11,000 west of Alameda Creek. Groundwater encountered during excavation would be treated to remove sediment then discharged into Alameda Creek.

The proposed project would affect several SFPUC-owned parcels currently leased to private parties for nurseries or cattle grazing. Several parcels would be affected by pipeline installation through the property. Construction staging and haul route activity would temporarily affect several parcels. In addition, an existing Chevron pipeline runs southward along the east side of Calaveras Road, turning westward and crossing the proposed pipeline alignment at a location approximately 1,800 feet north of the SVWTP access bridge. The proposed pipeline would pass beneath and not affect the Chevron pipeline.

2.1 Project Approvals

Following completion of environmental review, the San Francisco Public Utilities Commission would hold a public hearing to consider approval of the proposed project. Approvals would also be required from:

- United States Army Corps of Engineers;
- California Department of Fish and Game; and
- California Department of Health Services.

Review of the proposed project would also be conducted by the United States Environmental Protection Agency, United States Fish and Wildlife Service, State Office of Historic Preservation, the San Francisco Bay Regional Water Quality Control Board, San Francisco Bay Area Air Quality Management District, and National Marine Fisheries Service.

3.0 POTENTIAL ENVIRONMENTAL EFFECTS

3.1 Key Environmental Issues

The following key environmental issues will be analyzed in the EIR document.

Biological Resources

The project area potentially contains habitat for a number of special status species, including the Alameda whipsnake, the California tiger salamander, and the California red-legged frog, among other species. The project site also contains sensitive vegetation communities associated with Alameda Creek, including sycamore alluvial woodland and wetlands. Project implementation may disturb and/or result in loss of native habitat for common and rare species during construction and direct effects on species where they are present. If groundwater levels are affected during construction, habitats (such as wetlands and Alameda Creek) dependent on groundwater may be affected. These issues will be addressed in the EIR.

Cultural Resources

Sensitive cultural resources that could be affected by the proposed project include prehistoric resources and historic structures that are protected by federal and state laws. Impacts could involve the discovery of previously unidentified prehistoric archaeological and/or paleontological resources due to disturbance during construction. The proposed project may also affect previously identified historic structures. These potential impacts will be considered in the EIR.

Hydrology, Groundwater, and Water Quality

The project has been designed to minimize impacts on Alameda Creek, but work within and near the creek would have the potential to result in hydrological and water quality impacts. Current plans for project construction entail discharging dewatered groundwater encountered during excavation across Alameda Creek. Installation of the proposed treated water conveyance pipeline would be conducted during the dry season and across dry reaches of Alameda Creek. The EIR will consider impacts related to the potential for increased sedimentation in Alameda Creek from construction activities and post-construction effects of the pipeline across the Alameda Creek floodplain.

Traffic and Transportation

Spoils hauling, equipment delivery, and other temporary construction-related traffic may affect operation of Calaveras Road and possibly that road's nearby intersection with I-680. This will be addressed in the EIR.

Hazards and Hazardous Materials

The project would entail an increase in the amount of chemicals used at the treatment plant, including sodium hypochlorite, sodium hydroxide, aluminum sulfate, and polymer. Aqueous ammonia and fluoride (hydrofluosilic acid) are new chemicals that would be added to on-site operations, as the improved system would entail fluoridating water at the SVWTP. This increased chemical usage would require an increase in chemical truck deliveries to the site. The project's impacts with respect to these hazardous materials will be addressed in the EIR.

Other Environmental Issues

Other topics that will be addressed in detail in the EIR include the potential for impacts related to:

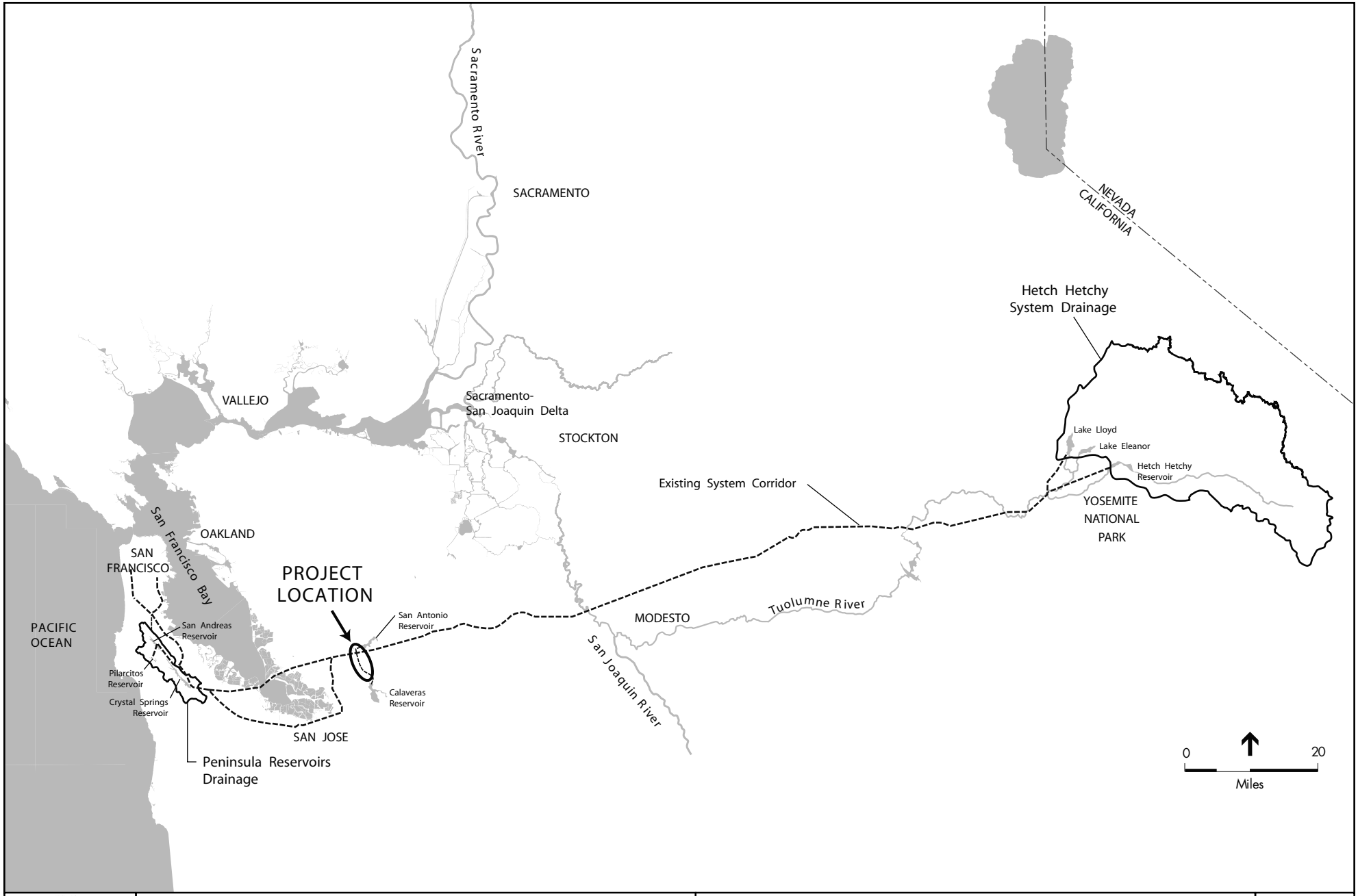
- Temporary visual impacts associated with construction activities;
- Permanent visual impacts of grading, new facilities, and spoils storage;
- Geologic and seismic risks associated with new structures and pipelines;
- Noise and air quality emissions during construction;
- Cumulative impacts that could occur from this project in combination with other projects planned in the area; and

- Growth-inducing impacts that could result from the proposed increase in water treatment capacity and water-transmission capacity between the Sunol Valley and the Bay Division Pipelines.

Other impacts may also be addressed, depending on further review and public input provided during the scoping process. Where impacts would be significant, the EIR will identify and discuss feasible mitigation measures.

3.2 Alternatives

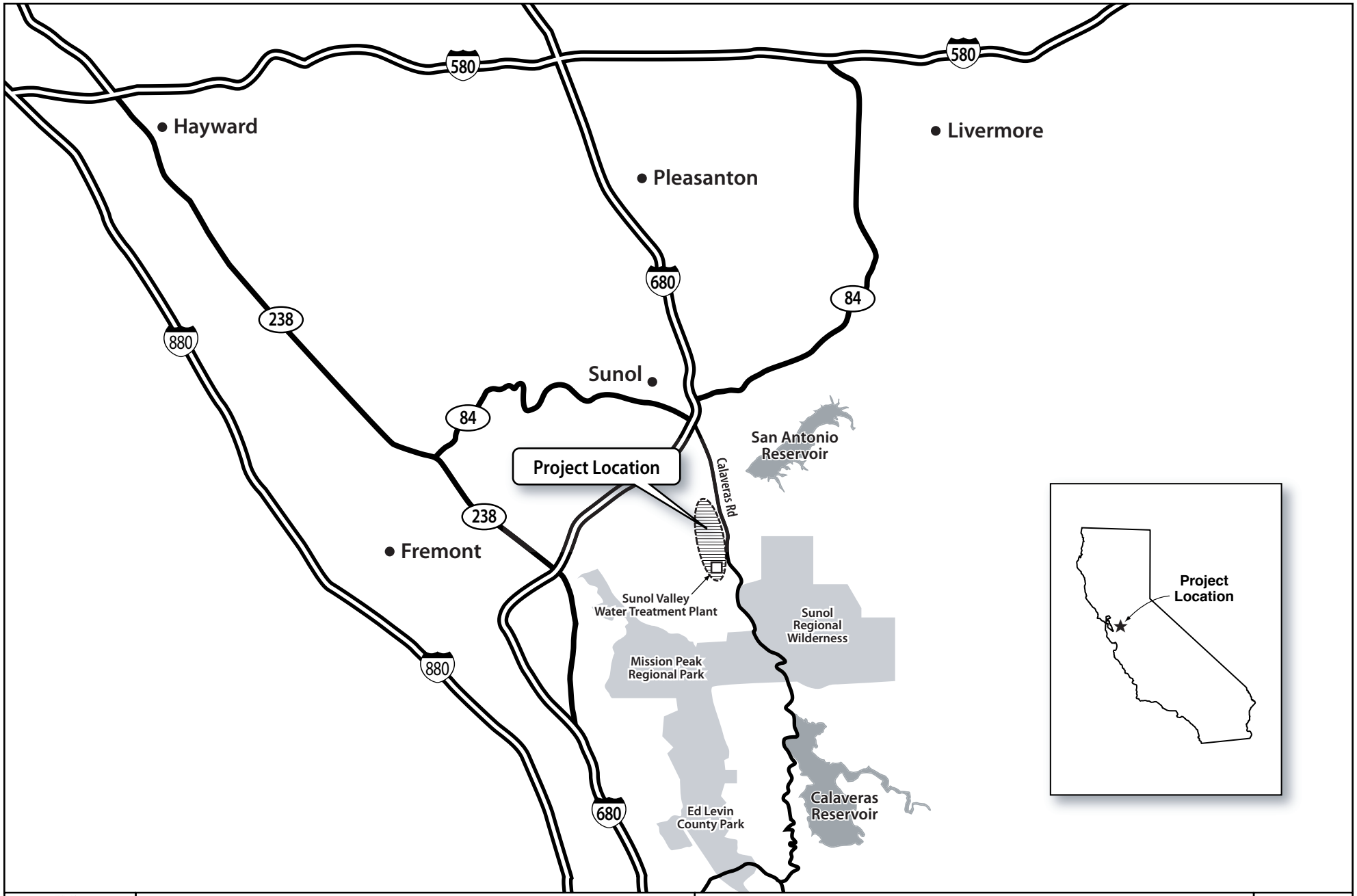
CEQA requires that an EIR evaluate a reasonable range of feasible alternatives to a project, or to the location of a project, that would attain most of the basic project objectives, but that could avoid or substantially lessen any of the significant effects of the project. In addition to the No Project alternative required by CEQA, the EIR will evaluate alternative pipeline alignments and project features and locations. It is anticipated that the scoping process may identify alternative approaches to avoid potentially significant impacts of the proposed project; the EIR will consider reasonable alternatives raised during scoping.



SUNOL VALLEY WATER TREATMENT PLANT IMPROVMENT PROJECT

SFPUC Regional Water System

FIGURE 1



SUNOL VALLEY WATER TREATMENT PLANT IMPROVMENT PROJECT

Project Location

FIGURE 2

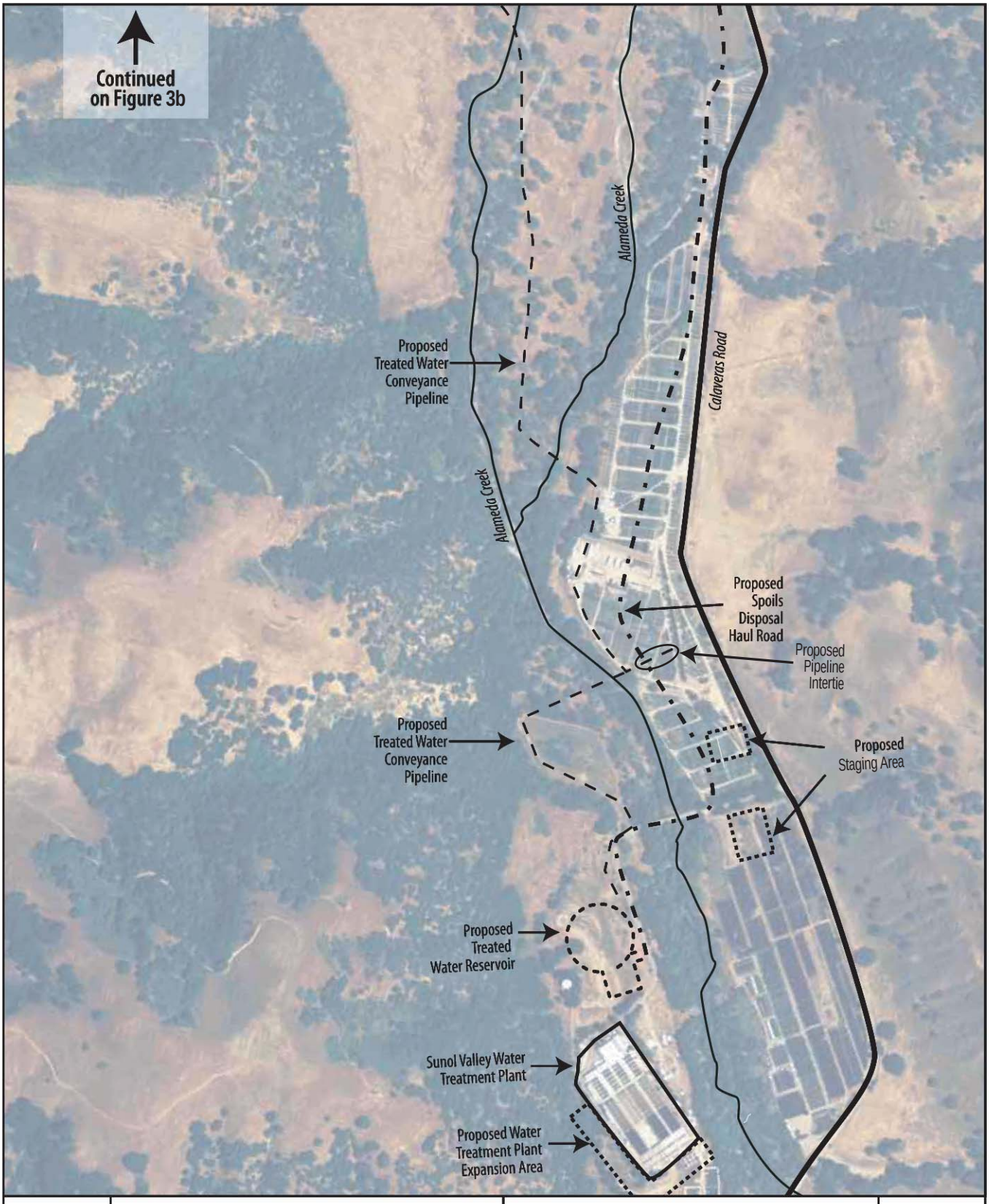


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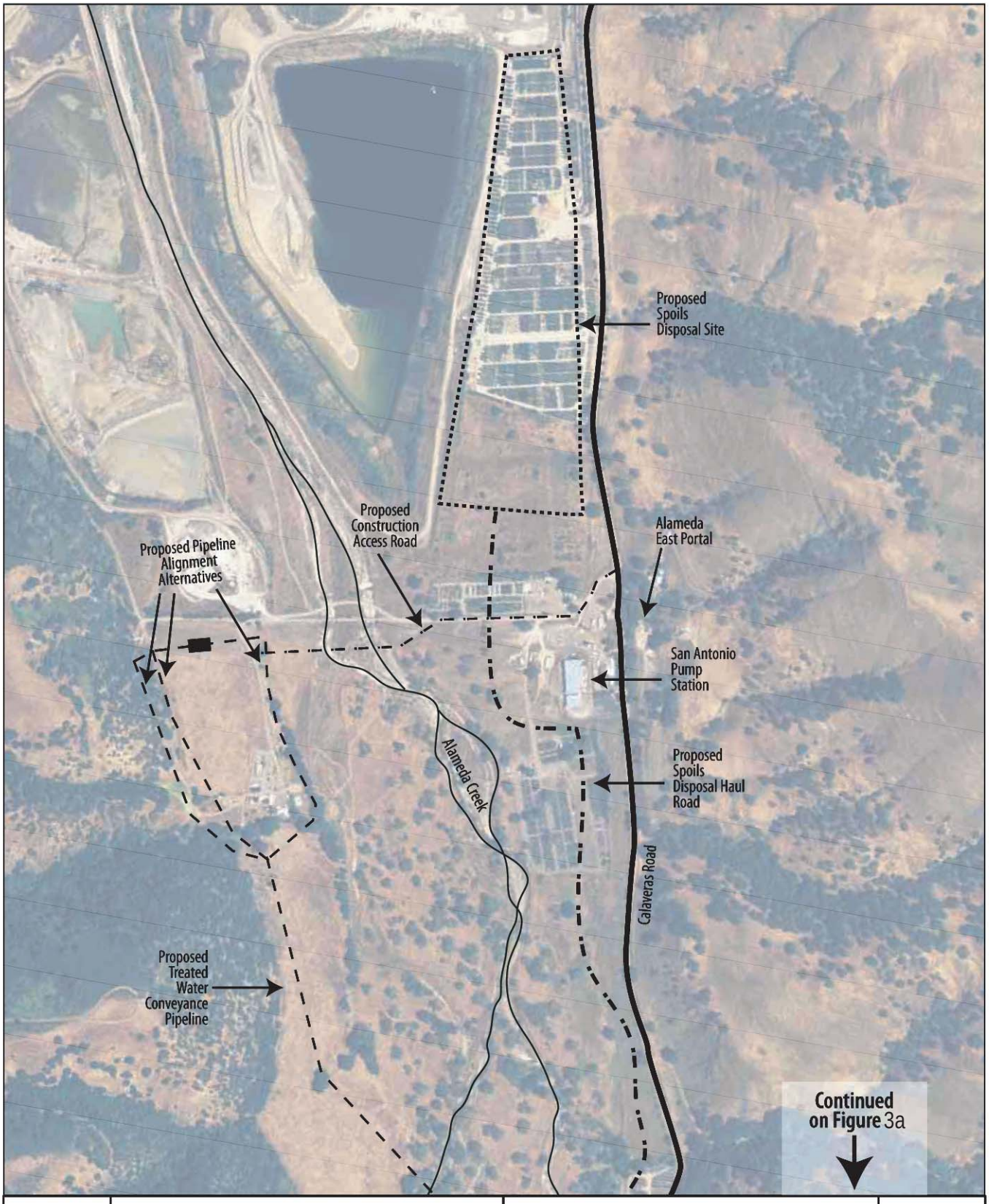
Figure not to scale

SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT

Proposed Project Facilities

FIGURE 3a



N Figure not to scale	SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT	Proposed Project Facilities	FIGURE 3b

Legal Ad

SAN FRANCISCO PLANNING DEPARTMENT NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING FOR THE SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT.

Initial evaluation conducted by the San Francisco Planning Department determined that the San Francisco Public Utilities Commission's proposed Sunol Valley Water Treatment Plant Improvement Project may have a significant effect on the environment. The San Francisco Planning Department will prepare an Environmental Impact Report (EIR) to assess the project's environmental effects. The San Francisco Planning Department issued a Notice of Preparation for the EIR on August 3, 2007.

Project Description (Case No. 2006.0137E)
The SFPUC proposes to add an additional 40 million gallon per day (mgd) of treatment capacity at the existing Sunol Valley Water Treatment Plant (SVWTP), construct a new treated water reservoir facility adjacent to the SVWTP, and construct an additional treated water conveyance pipeline (hereinafter referred to as "the project"). The proposed alignment for the new conveyance pipeline from the SVWTP generally runs northward from the SVWTP to the Alameda West Portal of the Irvington Tunnel, a distance of approximately 1.7 miles. The entire project is contained within the Alameda Creek watershed. The purpose of the project is to increase the total sustainable treatment capacity (the highest rate at which plant production can be expected to meet water quality requirements for a period of 60 days, give normal source water conditions) of the SVWTP from 120 mgd to 160 mgd, meet California Department of Health Services requirements for treated water reservoir storage, and provide an additional conveyance pipeline to add transmission capacity to the SFPUC regional water system in the Sunol Valley and alleviate disruption of operations in the event of an earthquake.

Public Scoping Meeting and Public Comments
The purpose of the EIR is to provide information about potentially significant adverse effects of the project. The public is invited to attend an upcoming scoping meeting to help identify the range of issues and the type of information that should be considered by the San Francisco Planning

Department in the EIR. The public scoping meeting is scheduled as follows:

Sunol: Wednesday, August 22, 2007
6:30 pm, starting promptly
Sunol Glen School
11601 Main Street
Sunol, CA 94586

How to Comment During Scoping
The public will have the opportunity to comment on the scope and focus of the EIR at the scoping meeting. The San Francisco Planning Department will also accept written public comments on the scope and focus of the EIR through the close of business on September 4, 2007. Written comments should be sent to the San Francisco Planning Department, Attn: Paul Maltzer, Environmental Review Officer, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2479, by fax to (415) 558-6409, or by email to chris.kern@sfgov.org.

Meeting Presentation

Public Scoping Meeting

San Francisco Planning Department
Major Environmental Analysis Division

SCOPING MEETING

SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT
Environmental Impact Report

August 22, 2007

Tonight's Sunol Valley Water Treatment Plant Improvement Project Scoping Meeting

- Sign in at the table near the entrance.
- Pick up copies of meeting materials.
- If you would like to provide a comment tonight, fill out a speaker card.
- To make written comments, pick up comment cards.
  - ***Drop off at the end of the meeting***
  - ***Mail or fax later***
- Please hold all comments until the end of the presentation.

2

Project Team Introductions

San Francisco Planning Department
- ***Chris Kern, EIR Coordinator***

San Francisco Public Utilities Commission (SFPUC)
- ***Mike Iverson, Project Manager***
- ***Kent Nelson, Environmental Project Manager***
- ***Michele Liapes, Communications***

3

Meeting Agenda

- Presentation
  - ***Overview of Environmental Review Process***
  - ***Overview of Sunol Valley Water Treatment Plant Improvement Project***
- Public Comments
- Closing Remarks

4

California Environmental Quality Act

Projects require environmental review under the California Environmental Quality Act (CEQA) before they can be considered for approval

For SFPUC projects, CEQA is implemented by the San Francisco Planning Department, the CEQA Lead Agency.

5

CEQA Objectives

- **Present environmental impacts of proposed projects**
- **Identify ways to avoid or reduce environmental impacts**
- **Inform the agency decision-making process**
- **Encourage public participation**
- **Enhance interagency coordination**

6

CEQA: Program and Project EIRs

- A Program EIR has been developed for the SFPUC WSIP.
- The proposed SVWTPIP is one of the 22 Projects analyzed as part of the WSIP Program EIR.
- This effort is more detailed, project-specific CEQA review compared to that presented in the WSIP Program EIR.

7

What will the EIR do?

- **Provide a detailed description of the project and the existing environment**
- **Identify potential environmental effects**
- **Identify ways to avoid or reduce significant environmental effects through mitigation or alternatives to the proposed project**

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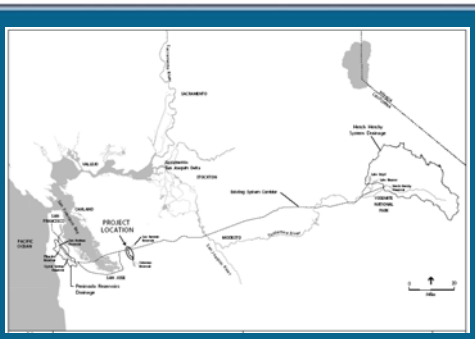
SFPUC WATER SYSTEM

9

SFPUC Water System



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Major Water System Facilities

- **280-plus miles of pipelines**
- **60-plus miles of tunnels**
- **11 reservoirs**
- **5 pump stations**
- **2 water treatment plants**

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Water System Improvement Program (WSIP)

- Voter approved November 2002
- 22 projects to:
  - *Repair, replace and seismically upgrade key water system facilities*
  - *Add new, redundant facilities to ensure system reliability*
  - *Maintain high-quality water*
- SVWTPIP one of many WSIP projects

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PROPOSED SUNOL VALLEY WATER TREATMENT PLANT IMPROVEMENT PROJECT (SVWTPIP)

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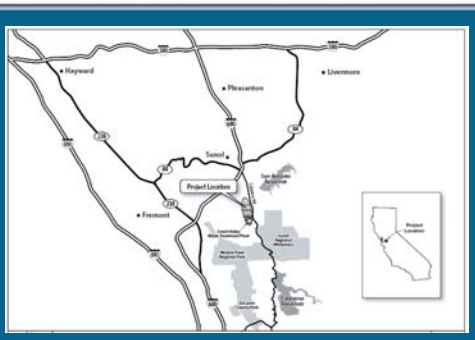
SVWTPIP: Project Location



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SVWTPIP: Project Goals and Objectives

- **Meet Bay Area water supply needs in the event that the Hetch Hetchy supply became unavailable**
- **Improve water delivery reliability in the event of an earthquake along the Calaveras Fault**
- **Meet the California Department of Health Services requirements for treated water reservoir storage**

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SVWTPIP: Major Project Components

- SVWTP Expansion
  (WSIP PEIR: Additional 40-mgd Treated Water Supply Project)
- Treated Water Reservoir
  (WSIP PEIR: SVWTP Treated Water Reservoirs)
- Treated Water Conveyance Pipeline

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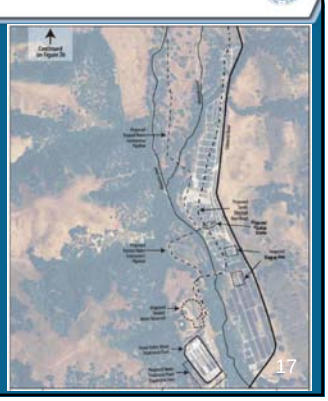
SVWTPIP: Focused Look

- 40 million gallon per day (mgd) water treatment plant expansion
- 17.5 million gallon Treated Water Reservoir
- 3 million gallon chlorine contact tank
- Treated water conveyance pipeline



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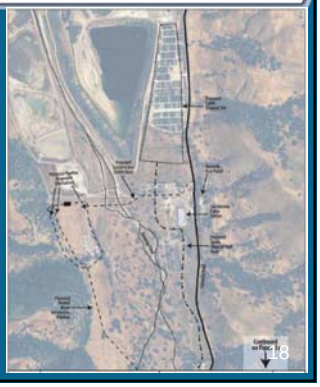
SVWTPIP: Focused Look (cont'd)

- Connection of treated water conveyance pipeline with the Alameda West Portal
  (a connection to the Irvington Tunnel)
- Spoil disposal area and spoils haul road



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SVWTPIP: Project Construction Schedule

- SVWTP Improvements
  Summer 2009 thru Spring 2013
- Treated Water Conveyance Pipeline
  Spring 2010 thru Fall 2012

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Environmental Review Schedule

- Scoping Period Ends – September 4, 2007
- Public Review of Draft EIR – Summer 2008
- Release of Final EIR – Spring 2009
- Certification of Final EIR – Spring 2009

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Public Comment

- **Hear your comments on the proposed scope of environmental review of the Sunol Valley Water Treatment Plant Improvement Project**
- **Help identify the following to be analyzed in depth:**
  - ***Range of alternatives***
  - ***Environmental effects***
  - ***Methods of assessment***
  - ***Mitigation measures***

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Comment Session Ground Rules

- **Submit speaker cards to speak**
- **Wait until your name is called**
- **Speak into the microphone and state your name**
- **Limit comments to 3 minutes**
- **Use comment forms for more extensive input**

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Where to Send Comments

- **Scoping comments accepted through:**
  September 4, 2007
- **Send by email to: chris.kern@sfgov.org**
- **Send by fax to: (415) 558-6409**
- **Send by U.S. mail to:**
  San Francisco Planning Department
  Attn: Environmental Review Officer
  1650 Mission Street, Suite 400
  San Francisco, Ca 94103-2479

- **CEQA Information is available online at:**
  www.sfgov.org/planning/mea
- **For Project information, contact:**
  Michele Liapes (415) 575-9037, mliapes@sfwater.org

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Written Comments

"Steve Lawrence" <splawrence@sbcglobal.net>
To "Chris Kern" <Chris.Kern@sfgov.org>
08/02/2007 07:54
cc PM <knelson@sfwater.org>

Subject SVWTP Improvement project

The NOP seems to short the pipeline. As I've got it--is this right--there is 8500' of 54", 2130' of 84", 600' of 78", and 200 feet of tunnel under Alameda Creek. But that totals 11,430'; the NOP says 1.7 miles; so I doubt what I've got because it doesn't match. Can you correct me?

Is there pipeline into the plant? (I think that's part of Calaveras Dam.)

Will the pipeline work be a separate project, let separately?

Is the job still $230 million?

The latest schedule I've got shows construction Sep2009 - Jan 2013; please correct this if wrong.

The filter(s) are new ones?

When is the EIR scheduled to be certified?

Thank you, Steve Lawrence, Citizens Advisory Comm.

California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay/

Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

AUG 17 2007
Date:
File No. 2198.09 (XF)

San Francisco Planning Department
Attn.: Mr. Maltzer
Environmental Review Officer
1650 Mission Street, Suite 500
San Francisco, CA 94103-2414

Subject: Comments on Notice of Preparation of an Environmental Impact Report for Sunol Valley Water Treatment Plant Improvement Project SCH No. 2006.0137E

Dear Mr. Maltzer:

We have reviewed the Notice of Preparation (NOP) of an environmental impact report (EIR) for the above referenced project. The project proposes to expand the treatment capacity of the Sunol Valley Water Treatment Plant (SVWTP) by 40 million gallons per day (mgd). Components of the project include the following:

- Construction of a new concrete structure at the existing SVWTP to house a flocculation basin, a sedimentation basin, and a filter bay, resulting in 40 mgd of increased treatment capacity;
- Construction of a new 17.5-mgd treated water reservoir north of the SVTWP;
- Installation of a new three million gallon chlorine tank adjacent to the new reservoir;
- Excavation surrounding the SVTWP and reservoir to accommodate the new structures;
- Installation of pipes, flow meters, and other infrastructure associated with new structures;
- Excavation for and installation of a new treated water conveyance pipeline between the proposed treated water reservoir to the south and the Irvington Tunnel's Alameda West Portal to the north (about 1.7 miles);
- Temporary spoils and groundwater processing activities during construction; and,
- Spoils transportation and disposal activities.

Based on the information provided in the NOP, we offer the following comments. These comments are to advise the San Francisco Planning Department and San Francisco Public

Utilities Commission (SFPUC) of our concerns, so they may be incorporated into the planning and design process at an early date.

Comments on Biological Resources

The NOP indicates that there is a potential for impacts to aquatic resources including wetlands, riparian habitat, streams or tributaries, and other waters of the State. Both a Clean Water Act (CWA) Section 401 water quality certification and a CWA Section 404 Permit from the U.S. Army Corps of Engineers may be necessary for projects involving impacts to waters of the U.S. Additionally, the project proponent may need to file a Report of Waste Discharge if the project may result in a discharge of pollutants to waters of the State, even if such waters have been excluded from federal jurisdiction (e.g. isolated waters under the Supreme Court's SWANCC decision). Work involving stream channels may require a Stream Bed Alteration Agreement from the California Department of Fish and Game.

The San Francisco Bay Regional Water Quality Control Board (Water Board) adopted U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams or other waters of the State may be permitted. Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States, unless a discharge, as proposed, constitutes the least environmentally damaging practicable alternative that will achieve the basic project purpose.

The Guidelines sequence the order in which proposals should be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and, 3) Mitigate – once impacts have been fully minimized, compensate for unavoidable impacts to waters. When it is not possible to avoid impacts to water bodies, disturbance should be minimized. Mitigation for lost water body acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Where impacts cannot be avoided, the creation of adequate mitigation habitat to compensate for the loss of water body acreage, functions and values must be provided.

Cumulative and indirect impacts of wetlands must also be prevented. Indirect impacts include deposition of sediments; erosion of substratum; additional water (flooding); reduced water supply or flows; creating a condition of pollution; shading; and watershed degradation.

Please note that the NOP also discloses that impacts may occur to the California tiger salamander (Federal Listed Threatened) and California red-legged frog (Federal and State Listed Threatened). Preservation of rare and endangered species is listed as a Beneficial Use in the San Francisco Water Quality Control Plan (Basin Plan). As a result, the Water Board is mandated to protect the California tiger salamander, California red-legged frog, and any other special-status species with habitat requirements supported by waters of the State; however, we generally defer

to the U.S. Fish and Wildlife Service and California Department of Fish and Game when they are involved in the permitting.

Comments on Hydrology, Groundwater, and Water Quality

The NOP discloses that there is a potential for hydrological and water quality impacts to Alameda Creek, including impacts from groundwater dewatering and construction activities.

Impacts from Dewatering

For any site dewatering activity, whether or not there is known soil contamination at the site, dewatering discharges may be contaminated. Water should be discharged to the sanitary sewer, assuming approval can be obtained from the sanitary sewer agency. If approval to discharge to the sanitary sewer cannot be obtained and the water cannot be otherwise disposed of (e.g., as dust control for water that has minimal contamination), then the SFPUC should determine whether the discharge can be covered under any of the Water Board's General National Pollutant Discharge Elimination System (NPDES) dewatering permits, and should prepare the requisite sampling, analysis, and treatment plans, file a Notice of Intent (NOI), etc. The SFPUC should also allow sufficient time for preparation of plans and applying for the permit before beginning a project.

If the water is tested and found to be clean, and if there is no history of contamination on the site or on adjacent sites, the SFPUC should implement a sediment removal program as necessary to ensure that the water is clean prior to discharge to a storm drain or water body. In addition, the SFPUC should confirm that the discharge will not cause erosion, flooding or other problems.

Impacts from Construction Activities

The project has the potential to impact water quality during and after construction through excavation activities that will generate 409,400 cubic yards of spoils, and disturbance of more than 1 acre of land. As a result, the project must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This can be accomplished by filing a NOI with the State Water Resources Control Board, Division of Water Quality. Copies of the General Permit and NOI can be obtained from the State Board's web page, http://www.waterboards.ca.gov/stormwtr/construction.html, or by contacting Water Board staff at (510) 622-2300. As part of the General Permit, the project sponsor will need develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should specify the best management practices (BMP) to avoid impacts to receiving waters that are consistent with the General Permit and with the recommendations and policies of the local agency and the Water Board.

The project will also increase the amount of impervious surfaces at the site through the construction of a new 17.5-mgd treated water reservoir and installation of a new 3 million gallon

chlorine tank. As a result, there will be an increase the amount of stormwater runoff from the site. The Water Board recommends the development and implementation of a long term Storm Water Management Plan (SWMP) to protect water quality after construction. Post-construction stormwater concerns may include significant changes in the hydrograph of the receiving waters caused by stormwater runoff. We encourage the use of innovative site designs that reduce impermeable surfaces and incorporate BMPs to protect and treat stormwater. These considerations should be incorporated into project design as early in the planning phase as possible because the Water Board will expect BMPs to appropriately treat 80 to 90 percent of the average annual run off from impervious surfaces created by the project.

Closing

Please contact Xavier Fernandez at 510-622-5685 or xafernandez@waterboards.ca.gov with any questions or comments.

Sincerely,

Keith H. Lichten, P.E.
Senior Engineer

cc: State Clearinghouse

EAST BAY
MUNICIPAL UTILITY DISTRICT

August 27 2007

Paul Maltzer, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Re: Notice of Preparation of a Draft Environmental Impact Report for the Sunol Valley Water Treatment Plant Improvement Project, Sunol

Dear Mr. Maltzer:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Sunol Valley Water Treatment Plant Improvement Project in Sunol. Even though the property is located outside of EBMUD's Ultimate Service Boundary and Service Area, EBMUD requests to be kept on the project mailing list, and to receive the Draft EIR and the option to comment at that time.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:TNS:sb
sb07_238.doc

ALAMEDA COUNTY WATER DISTRICT

43885 SOUTH GRIMMER BOULEVARD • P.O. BOX 5110, FREMONT, CALIFORNIA 94537-5110
(510) 668-4200 • FAX (510) 770-1793 • www.acwd.org

August 31, 2007

Mr. Paul Maltzer, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Dear Mr. Maltzer:

Subject: Case No. 2006.0137E - Sunol Valley Water Treatment Plant Improvement Project

The Alameda County Water District (ACWD) appreciates the opportunity to comment on the scope of the Environmental Impact Report to be prepared for the Sunol Valley Water Treatment Plant Improvement Project. We understand that the main elements of the project are to add an additional 40 mgd of treatment plant capacity and construct a 3 mg clearwell, 17.5 mg treated water reservoir and 1.7 mile long conveyance pipeline. This project is one of 22 key projects of the San Francisco Public Utilities Commission's Water System Improvement Program (WSIP).

ACWD supplies water to a population of over 320,000 in the cities of Fremont, Newark and Union City. ACWD was formed in 1914 by an act of the California Legislature for the purpose of protecting the water in the Niles Cone Groundwater Basin and conserving the water of the Alameda Creek Watershed. Local runoff along with imported water is percolated into the Niles Cone Groundwater Basin through recharge in Alameda Creek itself and through recharge ponds within the Quarry Lakes Regional Recreational Area and adjacent areas. The water is subsequently recovered through groundwater production wells and provided as potable supply to ACWD's customers. With respect to this project, we urge the SFPUC to take steps so that neither the flow nor quality of water in Alameda Creek is impaired in ways that affect its use for groundwater recharge.

As one of the SFPUC's larger wholesale customers outside of the City of San Francisco, ACWD has a vested interest in seeing that the SFPUC is successful in executing its multi-billion dollar WSIP. We share the goal of high quality water supply and a reliable storage and conveyance system that will serve the present and future needs of the San Francisco Bay Area at a reasonable cost.

The following are ACWD's comments on the scope of the project EIR:

1. Due to the proximity of the project area to Alameda Creek, it is important that suitable mitigation measures be taken to contain and control bank erosion and sediment runoff during construction. Furthermore, a hazardous materials management plan is needed to ensure proper storage and use of fuels, lubricants and like substances needed during construction in order to prevent and respond to any potentially toxic or hazardous materials releases to the environment.
2. Because of possible jeopardy to ACWD groundwater recharge facilities and the year-round use of Alameda Creek for local runoff and/or imported flow conveyance, the EIR should indicate the necessity of prompt notification of ACWD on-call staff in the event of any unplanned releases, accidents or hazardous material spills due to both construction-related and post-construction project activities..
3. Finally, the EIR should evaluate the hydrologic and water quality impacts associated with the planned discharge of dewatered groundwater during excavation.

We look forward to your thoughtful consideration of these comments and anticipate that suitable responses will be included in the project EIR to address these concerns. If you have any questions, please contact Laura Hidas, Water Supply Engineer at (510) 668-6516.

Sincerely,

for

Paul Piraino
General Manager

dgc

cc: Robert Shaver
Karl Stinson
Eric Cartwright

-----Original Message-----
From: Jeff Miller [mailto:jmiller@biologicaldiversity.org]
Sent: Friday, August 31, 2007 3:51 PM
To: Nelson, Kent; Kern, Chris; Gautier, Suzanne; 'Josh Milstein'; Ramirez, Tim; Maltzer, Paul; Wycko, Bill
Cc: 'Kristine Atkinson'; Sheila_larsen@fws.gov; carmor@dfg.ca.gov
Subject: ACA scoping comments on SVWTP Project

August 31, 2007

Paul Maltzer
Environmental Review Officer
Sunol Valley Water Treatment Plant Project
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Re: Scoping Comments on the Sunol Valley Water Treatment Plant Project

Dear Paul Maltzer:

These are the scoping comments of the Alameda Creek Alliance on the San Francisco Public Utilities Commission's (SFPUC) proposed Sunol Valley Water Treatment Plant (SVWTP) Expansion Project.

The Alameda Creek Alliance is a community watershed group dedicated to the protection and restoration of the natural ecosystems of the Alameda Creek watershed. The ACA has over 1,430 members that live in or near the watershed. The Alameda Creek Alliance has been working to restore steelhead trout and protect endangered species in the Alameda Creek watershed, and specifically in the Sunol Valley, since 1997.

The Notice of Preparation for the SVWTP project notes that the project area potentially contains habitat for a number of special status species, including the Alameda whipsnake (Masticophis lateralis euryxanthus), California tiger salamander (Ambystoma tigrinum californiense), and California red-legged frog (Rana aurora draytonii). The tiger salamander and red-legged frog are documented to occur and are suspected to breed in the vicinity of the project. Other special-status species that are documented to occur in the vicinity of the project are rainbow/steelhead trout (Oncorhynchus mykiss), foothill yellow-legged frog (Rana boylii), Western pond turtle (Clemmys marmorata), and Pacific lamprey (Lampetra tridentata). For documentation of the occurrence of these species in the vicinity of the project, see the annual SFPUC Alameda Creek Aquatic Resource Monitoring Reports (1998, 1999, 2000, 2001, 2002, and 2003) published by the SFPUC Water Quality Bureau, and also the California Department of Fish and Game's California Natural Diversity Database.

The project site and much of the vicinity is also designated as critical habitat for the California red-legged frog. See the Federal Register for April 13, 2006 (71 FR 19244–

19346). If a federal permit is needed for the SVWTP project, the federal permitting agency, such as the U.S. Army Corps of Engineers, must consult with the U.S. Fish and Wildlife Service to ensure that critical habitat for the red-legged frog is not destroyed or adversely modified by the project.

The SFPUC should ensure that any facilities constructed as part of the SVWTP project are set back at least 100 feet from Alameda Creek to protect the riparian corridor, which is too important for aquatic habitat and water quality to allow loss of any riparian area.

California tiger salamanders are breeding somewhere in the upper Sunol Valley, as evidenced by a road-killed salamander found in 2001 on Calaveras Road (north of Welch Creek Road) during the breeding season. As part of the environmental review for the SVWTP, the SFPUC should determine where tiger salamanders are breeding in the Sunol Valley, where they are dispersing to after breeding, and potential migration corridors. This information is needed to avoid directly destroying breeding habitat and to ensure that proposed roads and truck traffic do not result in the take of salamanders or disruption of their migration.

The environmental review for the project should also determine whether there are nesting birds in riparian areas adjacent to the proposed project, and the potential for sensitive species of grassland birds such as the western burrowing owl (Athene cunicularia hypugaea), golden eagle (Aquila chrysaetos), northern harrier (Circus cyaneus), white-tailed kite (Elanus leucurus), prairie falcon (Falco mexicanus), or loggerhead shrike (Lanius ludovicianus) to occur, and determine the potential impacts on these species.

The SFPUC had a disastrous chlorine spill at the SVWTP in April of 2002, which killed all fish and aquatic life in Alameda Creek within a reach extending downstream of the SVWTP about 1,000 yards, including an estimated 24-36 lampreys and several frogs of an undetermined species. In May 2002 the SFPUC had another discharge of chlorinated water from the SVWTP. No restoration or mitigation was ever done by the SFPUC to remediate the impacts of these chemical spills.

Given than the SVWTP project includes installation of a new three-million-gallon chlorine contact tank, a new chemical feed facility, two 10,000-gallon ammonia storage tanks, two 13,000-gallon sodium hypochlorite tanks, two 5,000-gallon hydrofluosilicic tanks, and a chemical truck unloading station adjacent to Alameda Creek, the environmental review for the project must discuss what fail-safe measures the SFPUC will implement at the SVWTP to ensure there is never another chemical spill into Alameda Creek. The environmental review must also spell out what containment, spill response, and mitigation measures will be in place if a chemical spill does occur.

The environmental review for the project should discuss whether the expanded SVWTP will increase the capacity for the SFPUC to move treated water through the water system and whether there is potential for an increased rate of water diversion and storage at the Alameda Diversion Dam and Calaveras reservoir as a result of the project.

The proposed project will include construction of a haul road and tunneling of pipelines that will cross Alameda Creek in several locations. The current bridge crossing of Alameda Creek and the dry crossing of the creek just downstream are poorly designed and impact the channel morphology and water quality of Alameda Creek – they are also inadequate to handle the equipment and trucks hauling material from the project. We encourage the SFPUC to replace the existing crossings with a bridge that does not have footings in the active creek channel.

Thank you for the opportunity to comment on this project.

Sincerely,

Jeff Miller, Executive Director

cc: Chris Kern, San Francisco Planning Department
Kent Nelson, SFPUC
Tim Ramirez, SFPUC
Josh Milstein, S.F. City Attorney
Suzanne Gautier, SFPUC
SFPUC Commissioners
S.F. Board of Supervisors
U.S. Fish and Wildlife Service
California Department of Fish and Game

****

Jeff Miller
Director
Alameda Creek Alliance
P.O. Box 192
Canyon, CA 94516
(510) 499-9185
Fax (415) 436-9683
Web site www.alamedacreek.org

Protecting and restoring the natural ecosystems of the Alameda Creek watershed

East Bay Regional Park District

2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381 T. 510 635 0135 F. 510 569 4319 TDD. 510 633 0460 WWW.EBPARKS.ORG

September 4, 2007

Paul Maltzer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 84193-2479

Subject: Scoping Comments for Sunol Valley Water Treatment Plant
Sunol Regional Wilderness

Dear Mr. Maltzer,

Thank you for providing the East Bay Regional Park District ("District") with a copy of the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the proposed Sunol Valley Water Treatment Plant Project ("Project") in the Sunol area.

There are several District-operated regional parks that abut San Francisco Water District (SFWD) watershed lands. These include Sunol Regional Wilderness, Ohlone Regional Wilderness, Del Valle Regional Park and Vargas Plateau. The District also operates several existing and planned regional trails in the area, including the Ohlone Wilderness, Mission Peak to Vargas Plateau, Sunol to Pleasanton Ridge and the Niles Canyon Trails. Development of the Project has the potential to affect these facilities.

The NOP provides minimal information on the Project so we could not determine how or if regional parks and trails might be affected. For example, the NOP (and apparently the SFWD web site) contains no maps showing the location of the Project or the proposed foot print of the new facilities. We request that SFWD provide us with copies of relevant maps and more descriptive information on the proposed Project. A more specific scoping letter could then be provided regarding District concerns and interests.

Please also provide us with copies (CD preferred) of any technical studies, plans and the DEIR when available. Please call me should you have any questions regarding this letter. I can be reached at (510) 544-2622.

Sincerely,

Brad Olson
Environmental Programs Manager

Linda S. Adams
Agency Secretary
Cal/EPA

Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

September 6, 2007

Mr. Chris Kern
Project Planner
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103-2479

Dear Mr. Kern:

Thank you for the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Sunol Valley Water Treatment Plant (SVWTP) Improvement Project (SCH# 2007082014). As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the California Environmental Quality Act (CEQA) documentation prepared for this project adequately addresses any remediation activities which may be required to address hazardous substances releases.

The proposed project would consist of the addition of a 40 million gallon per day treatment capacity at the existing SVWTP, construction of a new 17.5 million gallon treated water reservoir facility adjacent to the SVWTP, and construction of an additional treated water conveyance pipeline. The Project Description, Phase I, Treated Water Reservoir section (page 4), indicates that excavation below ground would be required. It also states groundwater may be encountered at the excavation sites of both the treatment capacity expansion and treated water reservoir components of the proposed project. It also states an additional investigation would be conducted as part of an environmental review of this project to evaluate the potential for presence of contaminated groundwater. DTSC recommends that the EIR discuss the results of any environmental assessments that have been or will be conducted. Soil, and possibly groundwater, sampling should be performed at any locations where current or past chemical use may have resulted in a release of hazardous substances. The last paragraph of Section 2.0 (page 5) indicates that the proposed project would affect several parcels leased to private parties for uses that include nurseries. The EIR should discuss whether there has been any use of pesticides by the nurseries. Sampling of any potential hazardous substance release areas should be conducted prior to or in conjunction with the preparation of the EIR. The sampling results should be discussed in the EIR and any screening levels or criteria that are used in making a determination

whether detected contaminants are found at concentrations that pose a risk to human health or the environment should be identified.

Any remediation activities that are to be implemented as part of the project should be discussed in the EIR along with the cleanup levels that will be applied and the anticipated regulatory agency oversight. Potential impacts associated with the remediation activities should be addressed by the EIR. If the remediation activities include soil excavation, the EIR should include: (1) an assessment of air impacts and health impacts associated with the excavation activities; (2) identification of any applicable local standards which may be exceeded by the excavation activities, including dust and noise levels; (3) transportation impacts from the removal or remedial activities; and (4) risk of upset should there be an accident during cleanup.

Please contact Robert Aragon at (510) 540-3904 if you have any questions. Thank you in advance for your consideration of our comments.

Sincerely,

Mark Piros

Mark Piros, P.E., Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
P. O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

STATE OF CALIFORNIA -- THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

Mr. Chris Kern
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103-2479

SCH #2007082014, Notice of Preparation (NOP) for the Sunol Valley Water Treatment Plant Improvement Project Draft Environmental Impact Report (EIR), August 2, 2007
Alameda County

Dear Mr. Kern:

The Division of Safety of Dams has reviewed the Notice of Preparation for the Sunol Valley Water Treatment Plant Improvement project.

Based on the information provided, we find that the proposed project includes the construction of a new circular pre-stressed concrete reservoir for treated water, with a storage capacity of approximately 53 acre-feet and a height of 35 feet. As defined in Section 6004 (a), Division 3, of the California Water Code, circular tanks constructed of steel or concrete, or both, are excluded from our jurisdiction. Therefore, the proposed tank will not be subject to State jurisdiction for dam safety. It is recommended that the local agency having jurisdiction be consulted for permit-related matters.

If you have any questions or need additional information, you may contact Office Engineer Chuck Wong at (916) 227-4601 or Regional Engineer Frank Fong at (916) 227-4604.

Sincerely,

M. Zumot

Mike Zumot, Acting Chief
Division of Safety of Dams

cc: Ms. Nadell Gayou
Resources Agency Project Coordinator
Environmental Review Section, DPLA
901 P Street
Sacramento, California 95814

Mr. Scott Morgan, Project Analyst
Governor's Office of Planning
and Clearinghouse
Post Office Box 3044
Sacramento, California 95812-3044

Meeting Transcript

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SUNOL VALLEY WATER TREATMENT IMPROVEMENT PROGRAM

PUBLIC SCOPING MEETING

SUNOL GLEN SCHOOL

11601 MAIN STREET

SUNOL, CALIFORNIA

WEDNESDAY, AUGUST 22, 2007

6:30 O'CLOCK P.M.

REPORTED BY: DEBORAH FUQUA, CSR#12948

---o0o---

A P P E A R A N C E S

ERIKA LOVEJOY

Senior Planner, SFPUC

MIKE IVERSON

Project Manager SFPUC

KENT NELSON

Environmental Project Manager, SFPUC

MICHELE LIAPES

Communications Manager, SFPUC

DAVE ROGERS

Sunol Regional Project Manager

---o0o---

P U B L I C S P E A K E R S

Jeff Miller

Stan Garcia

Wednesday, August 22, 2007 6:30 o'clock p.m.

P R O C E E D I N G S

(Presentation given)

ERIKA LOVEJOY: Okay.

We're going to move on and talk a little bit more about the environmental review process and then go on the public comments. So just to give you some history here or some updates, the scoping period for comments on this -- for the scoping period, the comment period ends September 4th, 2007 at 5:00 p.m. We'll give more instruction -- I think, as I mentioned, the instructions are up there where you can send those comments in -- they'll be on the screen in a minute.

We anticipate publishing the draft environmental impact report for public review by next summer or fall.

There will be an opportunity to comment on that draft EIR, and we will then prepare responses to comments and make any necessary revisions and present the final EIR to the City Planning Commission for certification around spring of 2009. So that's the rough time line. If that changes, you're likely to see that on our Web site.

Now we would like to hear from you folks. Please remember that we're here tonight to receive

comments on the environmental issues related to the Sunol Water Treatment Plant Improvement Project. There will be ample opportunity to provide comment on specific water system improvement projects at subsequent meetings addressing those projects.

For those of you who want to speak tonight, I hope that you filled out a speaker card. And if anyone else decides to speak, we're still collecting cards, so go ahead and do that and turn them in now.

Anybody else?

(No response)

ERIKA LOVEJOY: Okay. We can go ahead and proceed.

Please note that the comment period is to take and record your comments. It will not be a question and answer session. We are here to hear from you. And in order to make sure everybody has a chance to speak, responses to questions will not be provided. However, if you have specific questions, you may speak with the project staff after the meeting.

We have a few ground rules regarding the comment session. First, please be sure to submit your speaker cards in order to speak. Wait until your name is called. Please come up to the podium and speak into the microphone and state your name before you begin your comments. And then -- how many folks are planning on

speaking tonight? Just raise your hand.

Just two, three -- two. Okay. Typically the comment period is three minutes, but there's only two of you, so I think you can have at least five minutes, possibly a couple more as long as you don't take too much time.

Let's see. I'm just going to keep track of that time after five minutes. And try and keep your points specific to this particular project. And keep in mind that you do have an opportunity to submit written comments. So if you don't feel like you're getting in everything that you want to say, don't worry about that because we will accept written comments.

So I'm going to go ahead. Jeff Miller?

JEFF MILLER: Hi, Jeff Miller, Director of the Alameda Creek Alliance. And our comments have mostly to do with biologic resources in the area. Just want to make sure you're aware that the project area is designated critical habitat for California red-legged frog. So if there's any federal funding or federal permit involved in this project, there's going to have to be a consideration of the critical habit in addition to just the listed species.

And I'm sure you're aware there are reg-legged frogs breeding in Alameda Creek in the vicinity of the

project. I saw the tiger salamander and whip snake were also listed in there. Potential for tiger salamanders breeding somewhere in the upper Sunol Valley, there's been tiger salamander found, road killed, on Calaveras Road during the breeding season, dispersing from a breeding area. So I don't know what kind of surveys have been done, but there needs to be some kind of surveys to determine where the breeding ponds are and where the uplands habitat is and where salamanders need to disperse. That's a big factor for roads and for salamanders crossing roads.

The creek in this section is a pretty important section of creek. It's potential habitat for steelhead trout. It's habitat for rainbow trout and also Pacific lamprey. And we will encourage, if you see them, make sure there's no development within 100 feet of the creek. That's a very important riparian corridor, and we can't afford to lose riparian habitat in that area.

Also, I don't know if there's going to be any impacts to grassland habitat there, but I know nearby there are some special-status grassland birds, like loggerhead shrike that use adjacent areas. So that needs to be looked at probably more for the haul road areas and spoils disposal areas.

And then the other issue is, in the vicinity of

the project, there's a bridge crossing of Alameda Creek. And I don't know if that bridge is going to be used for traffic from this project, but that bridge is under-sized.

There's some problems in the creek there. There's an old gabion that's been put in the creek -- wire baskets with rocks in it for grade stabilization -- that's failing that's probably 40 or 50 years old. And if that bridge is used or if there's a crossing of Alameda Creek -- right now there's traffic that actually can drive through the creek during low water in the dry season.

If there's going to be truck traffic and major hauling of materials from this project, we encourage the PUC to look at replacing the existing bridge, which isn't adequate for heavy trucks anyhow, and rebuilding it so that it's out of the creek channel and try and fix the creek channel in that section.

Then the last comment has to do with capacity of the water system. And I guess this is more a question, which is: Is this project -- since it's going to increase the capacity for treated water, is it going to increase the rate at which water can be taken from Calaveras Reservoir and processed through the system? And if so, the EIR should look at potential impacts on

fish habitat in Calaveras Reservoir since there's land-locked trout in Calaveras Reservoir.

That's it. Thank you very much.

ERIKA LOVEJOY: Thank you.

Next, Stan Garcia.

STAN GARCIA: I live right in the middle of the project.

ERIKA LOVEJOY: Excuse me. Can you state your name, please?

STAN GARCIA: Stan Garcia, 6501 Calaveras Road.

My main interest is they put a row of trees on the north end of that filter plant and block the light coming my way. I can see one light right now from my house, my living room window, bedroom window. And also, I'd like to get the lights, any new lights, shaded on the north side.

The other thing of concern, which I think is still up in the air, is the pipeline. We've got three routes: one above my place, one through my place, and one below it. I prefer the one below it. That's unresolved, from my understanding.

And Jeff just mentioned the bridges. I'd like to see them get replaced too -- at least repaired. They're getting a lot of use right now with the gunite outfit and the soils outfit there in the -- packing in

the gravel pit. Nobody's repaired it in a couple years because I think they were figuring on replacing it. Last I heard, they're not going replacing it. So I don't know what's going on.

That's about it. That's my main concerns. The pipeline, which I can't do nothing about now or get too excited about -- we don't know where it's going. They're down there drilling test holes right now. See what the -- all there's going to find is rocks and sand. There's a quick bottom all the way down. They're on the first or second one right now.

I think that's it.

ERIKA LOVEJOY: Thank you.

Is there anyone else that wishes to speak that I missed?

(No response)

ERIKA LOVEJOY: Okay. So thanks for coming tonight everybody and everyone who spoke. So this is going to end the public comment portion of our meeting. If you came late, please be sure to sign in and get on our distribution list. And remember that you still have an opportunity to submit written comments for the scoping process by September 4th, 2007 at 5:00 p.m. to the San Francisco Planning Department. Here's more information on the screen here.

If you have any questions or comments concerning the environmental review process, you can contact Chris Kern at the Planning Department. His e-mail is there, and his telephone number is (415) 575-9037.

MICHELE LIAPES: You've got Chris's phone number after my name.

ERIKA LOVEJOY: Oh, I don't know who put that there.

So there's a mistake there. If you want information on the project, you should contact Michele Liapes.

Please tell them how to contact you, Michele.

MICHELE LIAPES: My number is (415) 554-3211. My contact information is on the project FAQ sheet, and I have a few cards over there on the table as well.

KAREN MOLINARI: So the correct information is on this FAQ sheet for both Chris and Michele.

ERIKA LOVEJOY: Okay. One last thing. Your comments tonight and the ones received in writing and between now and the end of the comment period will be reviewed and reflected in the draft EIR as applicable. And then written responses to the scoping period, however, will not be prepared.

Written responses will be prepared for comments

on the draft environmental impact report. So essentially, your comments here will be applied to what's written in the draft environmental impact report.

Thank you very much for coming, everyone. We're all going to hang out for a few minutes if you have some questions.

(Whereupon, the proceedings adjourned at 6:58 o'clock p.m.)

STATE OF CALIFORNIA)
) ss.
COUNTY OF MARIN)

I, DEBORAH FUQUA, a Certified Shorthand Reporter of the State of California, duly authorized to administer oaths pursuant to Section 8211 of the California Code of Civil Procedure, do hereby certify that the foregoing proceedings were reported by me, a disinterested person, and thereafter transcribed under my direction into typewriting and is a true and correct transcription of said proceedings.

I further certify that I am not of counsel or attorney for either or any of the parties in the foregoing proceedings and caption named, nor in any way interested in the outcome of the cause named in said caption.

Dated the 6th day of September, 2007.

DEBORAH FUQUA

CSR NO. 12948

Appendix B

California Department of Public Health
Compliance Order 02-0496C-001

MA Read 4/2/96

Compliance Order No. 02-04-96C-001

STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES

FEBRUARY 8 1996

IN RE: City and County of San Francisco
Public Utilities Commission
San Francisco Water Department
Sunol Valley Filtration Plant

TO: Mr. Anson Moran
General Manager
Public Utilities Commission
1155 Market Street
San Francisco, CA 94103

FINDINGS OF FACT

The San Francisco Public Utilities Commission (hereinafter, "SFPUC") and the San Francisco Water Department (hereinafter "SFWD") operate the Sunol Valley Filtration Plant (hereinafter "SVFP"). The SVFP treats water from local reservoirs and from the Hetch Hetchy transmission system and delivers that water to retail agencies and municipalities that serve customers in Alameda, San Mateo and Santa Clara Counties. On March 13, 1995, the SVFP was treating both local supplies and the Hetch Hetchy source during a period of heavy rain and elevated turbidities in the Hetch Hetchy system. During this time, individual filters at the SVFP exceeded 0.5 NTU after four hours of operation and those filters were not removed from service. The Department found the SFPUC to be in violation of Sections 64660 (b) (6) (C) and 64660 (b) (9), Title 22, of the *California Code of Regulations* (CCR). The Department issued Citation 02-04-95C-002 to the SFPUC for these violations. The

citation directed the SFPUC to arrange for third party investigations of the causes of the incidents, to develop or modify operations plans and procedures for its facilities and to develop communications procedures with its retail customers. The third party and Department investigations of the March events identified a number of organizational, operational and plant equipment deficiencies that contributed to the treatment failures. The SFPUC and the SFWD have taken steps to correct a number of the deficiencies. However, some deficiencies at the SVTP and in system operations remain and could result in a repeat of the violations of March 1995.

CONCLUSIONS OF LAW

Based on the above Findings of Fact, the Department finds that the SFPUC has violated Sections 64660 (b) (6) (C) and 64660 (b) (9) Title 22, CCR . Deficiencies in unit processes and operations at the SVTP remain and could result in a repeat of this violation. In accordance with Section 116650 of the California *Health and Safety Code* this violation is classified as a continuing violation.

ORDER

Pursuant to Section 116655 of the California *Health and Safety Code*, the Department hereby orders the Respondent, the SFPUC, to take the following actions to ensure that the water supplied to the public is at all times pure, wholesome, and potable.

1. At raw water turbidities of less than 10 NTU, peak plant flows at the SVFP shall not exceed 118 Million gallons per day (MGD) when operating in the conventional or direct filtration mode. At raw water turbidities equal to or greater than 10 NTU the SVFP shall be operated in the conventional filtration mode and peak plant flows shall

not exceed 87 MGD. These restrictions shall remain in effect until unit process capacity improvements found in Number 7 of this Order are completed or until the SFPUC demonstrates that the SVFP can meet the regulatory operational criteria in accordance with a Department approved operations plan.

2. The SFPUC shall evaluate the appropriate methods necessary to enable operators to adjust for changes in raw water alkalinity at the SVFP and shall install the necessary equipment by September 1, 1996.

3. The SFPUC shall investigate the feasibility of immediately increasing the backwash water supply capacity at the SVFP. The results of this investigation shall be submitted to the Department for review and approval by May 1, 1996.

4. The SFPUC shall investigate the feasibility of using the Niles Reservoir as a treated water storage facility. The results of this investigation shall be submitted to the Department review and approval by May 1, 1996.

5. The SFPUC shall establish unit process control targets, treatment criteria under a variety of raw water characteristics, and operational criteria to minimize flow variations for the SVFP based on a study of raw water treatability and optimum unit process operation. The results of this study shall be submitted to the Department by September 1,1996.

6. The SFPUC shall conduct an analysis of staffing levels in the Water Supply & Treatment and Water Quality Division. This analysis shall include a determination of roles and responsibilities, organization and appropriate staffing levels and classifications to operate, maintain, troubleshoot and provide emergency response for major water treatment facilities. The analysis shall specifically address the effects of sick leave, vacations, raw water treatability problems, mechanical breakdowns, required maintenance and regular in-service training on staff levels at the SVFP. This analysis shall be completed and submitted to the Department by September 1, 1996 and shall include an implementation plan.

7. By December 1, 1996, the SFPUC shall submit a plan and schedule to complete the following improvements to the SVFP.

a) Upgrade the flocculation and sedimentation basins to match the design capacity of the plant.

b) Provide alternate methods for recycle, treatment and /or disposal of filter backwash and sludge decant water during periods of elevated raw water turbidity. Look at #3

c) Increase the capacity of the backwash water supply, wash water recovery and sludge holding facilities to match the design capacity of the plant.

d) Provide treated water storage to serve as a balancing reservoir. The design criteria for this facility shall be subject to Department review and approval

The plan and schedule shall target the above noted improvements to be completed by the earliest possible date. If required, the environmental impact report for these improvements shall be completed by July 1, 1999, with all improvements completed by July 1, 2002. If the environmental impact report is not required, all improvements shall be completed by Janaury 1, 2000. The SFPUC shall submit quarterly progress reports for theses requirements to the Department. The first quarterly report shall be submitted by June 1, 1996.

8. By July 1, 1996, the SFPUC shall submit a plan and schedule to provide a system-wide System Control Automated Data Acquisition (SCADA) system to provide real-time water quality and supply information and control functions for operations and treatment personnel. The SFPUC shall submit quarterly progress reports for this requirement to the Department. The first quarterly report shall be submitted by September 1,1996.

9. The SFPUC shall develop and submit to the Department environmental regulatory compliance policies and procedures governing emergency discharges of water from all SFWD treatment and storage facilities by September 1, 1996.

10. The SFPUC shall develop comprehensive policies, procedures and training programs for treatment and operations personnel to ensure continuous compliance with the regulatory requirements for drinking water and to provide emergency response capabilities. This training shall include water quality and treatment issues and results of treatment and water quality studies conducted or contracted by SFWD. An implementation plan for this program shall be submitted to the Department by July 1, 1996.

11. The SFPUC shall provide process engineering support for water treatment operations. The SFPUC shall submit its plans to provide such support to the Department for approval by September 1, 1996. The personnel necessary to provide this support shall be available to treatment operations staff by January 1, 1997.

12. The SFPUC shall continue to develop a cooperative network with its retail customers. The SFPUC shall assess water supply and emergency response issues as they relate to the SFWD and all its retail customers. As a part of the implementation plan developed for Order Number 1 of this order, the SFPUC shall develop an Emergency Response Plan for its water supply systems in cooperation with its retail agencies and shall provide training to those retail agencies regarding its implementation. This plan shall include all foreseeable emergencies and shall identify the supply deficiencies of retail customers and operational criteria necessary to respond to emergencies and mitigate these deficiencies. A schedule for completion of the elements of this Order

shall be submitted for Department review and approval by April 1, 1996.

The Department reserves the right to make such modifications to this Order as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Order and shall be effective upon issuance.

All submittals required by this Order shall be addressed to:

Mr. Clifford L. Bowen, P.E.
District Engineer
San Francisco District
Drinking Water Field Operations Branch
California Department of Health Services
2151 Berkeley Way, Room 458
Berkeley, CA 94704.

If the Respondent is unable to perform the tasks specified in this Order for any reason, whether within or beyond the Respondent's control, and if the Respondent notifies the Department in writing no less than 90 days in advance of the due date, the Department may extend the time for performance if the Respondent demonstrates that it has made its best effort to comply with the schedules and other requirements of this Order. If the Respondent fails to perform any of the tasks specified in this Order by the time described herein or by the time as subsequently extended pursuant to this paragraph, the Respondent shall be deemed to have failed to comply with the

obligations of this Order and may be subject to additional judicial action, including civil penalties specified in Health and Safety Code, Section 116725.

The State of California shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by the Respondent, its employees, agents, or contractors in performing activities pursuant to this Order, nor shall the State of California be held as a party to any contract entered into by the Respondent or its agents in performing activities pursuant to this Order. By issuance of this Order, the Department does not waive any further enforcement actions.

CIVIL PENALTY

Section 116650 of the H&S Code allows for the assessment of a civil penalty for failure to comply with the requirements of Chapter 7 or any order issued thereunder. Failure to comply with this order may result in the Department imposing an administrative penalty for each day of violation of any provision of this order.

PARTIES BOUND

This Order shall apply to and be binding upon the Respondent, its officers, directors, agents, employees, contractors, successors, and assignees.

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SEVERABILITY

The requirements of this Order are severable, and the Respondent shall comply with each and every provision thereof notwithstanding the effectiveness of any provision.

February 5, 1996
Date

Catherine S. Ma

Catherine S. Ma, P.E., Chief,
North Coastal Region
Drinking Water Field
Operations Branch

CERTIFIED MAIL NO.P 868 698 622

cc: City and County of San Francisco Health Department
Art Jensen, BAWUA
Bill Robberson, EPA

Appendix C

WSIP PEIR Mitigation Measures Not Applicable to the Proposed Project

APPENDIX C

WSIP PEIR Mitigation Measures Not Applicable to the Proposed Project

C.1. Introduction

The Water System Improvement Program (WSIP) Program Environmental Impact Report (PEIR) mitigation measures were each evaluated for their applicability to the proposed project. In some cases, the mitigation measures proposed in the PEIR were relevant to the proposed project but because more detailed project-specific information and impact analysis is now available, the PEIR mitigation measure content was edited to better reflect project-specific information. Table C-1 lists the program-level impacts and significance determinations identified in the WSIP PEIR for the Sunol Valley Region projects and the project-level impacts and significance determinations identified in the Sunol Valley Water Treatment Plant Expansion & Treated Water Reservoir EIR. Table C-1 also explains any inconsistencies in the determinations between the two EIRs, and confirms whether the significance determinations and the underlying rationale for these determinations are consistent with the WSIP PEIR. Some mitigation measures from the PEIR that were included as project mitigation measures were edited for clarification, including cross-references to project-specific impact and mitigation measure numbers. Where these were the only edits made to a mitigation measure, it was not considered a substantive edit. WSIP PEIR mitigation measures that have been edited for use in this project EIR, as well as an explanation of the rationale for edits made, are provided in Table C-2.

C.2. Significance Determination Analysis

Table C-1. Significance Determinations

(Note: *Impacts in italics are additional impacts included in the [SVWTP] project EIR.*)

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
LAND USE AND VISUAL QUALITY				
Impact 4.3-1: Temporary disruption or displacement of existing land uses during construction	LS	LS	Y	No difference, Impact LU-1.
Impact 4.3-2: Permanent displacement or long-term disruption of existing land uses	PSU / N/A	LS	N	Proposed Project would permanently displace nursery operations at Nursery Site1; however, restoration of the site would not conflict with existing character of the vicinity.
Impact 4.3-3: Temporary construction impacts on scenic vistas or visual character	LS	LS	Y	No difference, AES-1, AES-3.
Impact 4.3-4: Permanent adverse impacts on scenic vistas or visual character	LS	LS	Y	No difference, AES-5, AES-7.
Impact 4.3-5: New permanent sources of light glare	PSM	LS	Y	The proposed project incorporates Alameda WMP Action des 5F, which includes use of non-reflective paint. Permanent lighting on the site would be directed downward and sited and shielded such that it is not highly visible or obtrusive, precluding the need for further mitigation.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
GEOLOGY, SOILS, AND SEISMICITY				
Impact 4.4-1: Slope instability during construction	PSM	LS	Y	To address slope instability, appropriate support and protection measures have been included in the project description to maintain the stability of slopes adjacent to newly graded access roads and project structures during and after construction, and to minimize potential for damage to project facilities.
Impact 4.4-2: Erosion during construction	LS	See Surface Water/Hydrology/Water Quality	N/A	Impact analysis included in Hydrology/Water Quality section.
Impact 4.4-3: Substantial alteration of topography	LS	LS	Y	No difference, Impact GEO-8.
Impact 4.4-4: Squeezing ground and subsidence during tunneling	N/A	N/A	Y	N/A
Impact 4.4-5: Surface fault rupture	LS	LS	Y	No difference, Impact GEO-2.
Impact 4.4-6: Seismically induced groundshaking	LS	LS	Y	No difference, Impact GEO-3.
Impact 4.4-7: Seismically induced ground failure, including liquefaction and settlement	LS	LS	Y	No difference, Impact GEO-4.
Impact 4.4-8: Seismically induced landslides or other slope failures	LS	LS	Y	No difference, Impact GEO-5.
Impact 4.4-9: Expansive or corrosive soils	PSM	LS	Y	The proposed project design includes use of passive cathodic protection and coating and lining to protect the steel pipes from corrosion. The treated water reservoir and the chlorine contact tank would both be constructed of concrete reinforced with steel. Only the concrete would be exposed to the soil. The steel would be embedded in the concrete. Therefore, these structures would not be susceptible to corrosion.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
SURFACE WATER HYDROLOGY AND WATER QUALITY				
Impact 4.5-1: Degradation of water bodies as a result of erosion and sedimentation or a hazardous materials release during construction	LS	LSM	Y	Includes Mitigation Measure HYD-1a, which would implement construction water quality BMPs developed by project team and consulted with RWQCB.
Impact 4.5-2: Depletion of groundwater resources	N/A	N/A	Y	N/A
Impact 4.5-3a: Degradation of water quality due to construction dewatering discharges	N/A	LSM	N	The proposed project includes implementation of a Dewatering Plan as part of Mitigation Measure HYD-1b.
Impact 4.5-3b: Degradation of water quality due to construction-related discharges of treated water	LS	LSM	Y	Includes Mitigation Measure HYD-2 to ensure that any discharges are conducted in compliance with discharge permit requirements.
Impact 4.5-4: Flooding and water quality impacts associated with impeding or redirected flood flows	N/A	LS	N	No sensitive receptors are located in the vicinity of the proposed encroachments that would be affected by a potential increase in 100-year water surface elevations.
Impact 4.5-5: Degradation of water quality and increased flows due to discharges to surface water during operation	LS	LS	Y	No difference, Impact HYD-4.
Impact 4.5-6: Degradation of water quality as a result of alteration of drainage patterns or an increase in impervious surfaces	LS	LSM	N	Includes Mitigation Measure HYD-7, which incorporates Alameda County Clean Water Program design measures to accommodate additional runoff from new impervious surfaces.
BIOLOGICAL RESOURCES				
Impact 4.6-1: Impacts on wetlands and aquatic resources	PSM	PSM	Y	No difference, Impacts BIO-11, BIO-13, BIO-14 and BIO-16, BIO-17.
Impact 4.6-2: Impact to sensitive habitats, common habitats, and heritage trees	PSM	PSM	Y	No difference, Impacts BIO-1 through BIO-10, BIO-12, BIO-13, BIO-22, and BIO-25.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.6-3: Impact on key special-status species – direct mortality and/or habitat effects	PSM	LS	Y	No special-status plant species were located during protocol surveys on the site and thus no significant impact identified. Impact BIO-1 through BIO-10
Impact 4.6-4: Water discharge effects on riparian and/or aquatic resources	LS	LS	Y	No difference, Impacts BIO-16
Impact 4.6-5: Conflict with adopted conservation plans or other approved biological resources plans	LS	LS	Y	No difference, discussed in "Approach to Analysis" section; no Impact number.
CULTURAL RESOURCES				
Impact 4.7-1: Impacts on paleontological resources	PSM	LSM	Y	No difference, Impact CR-1.
Impact 4.7-2: Impacts on unknown or known prehistoric and archaeological resources	LSM	LSM	Y	No difference, Impact CR-2.
Impact 4.7-3: Impacts to paleontological resources	LSM	LSM	Y	No difference, Impact CR-1.
Impact 4.7-4: Potential disturbance of buried human remains	LSM	LSM	Y	No difference, Impact CR-3.
TRAFFIC, TRANSPORTATION , AND CIRCULATION				
Impact 4.8-1: Temporary reduction in roadway capacity and increased traffic delays	LS	LSM	N	The proposed project would limit spoils hauling to non-peak hours to maintain acceptable LOS levels.
Impact 4.8-2: Short-term traffic increases on roadways	PSM	LS	N	The proposed project would result in a very small amount of construction traffic, added to roads and intersections that are generally operating at acceptable levels, and the project-related traffic increase would not substantially affect local roadways.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.8-3: Impaired access to adjacent roadways and land uses	LS	LS	Y	Project would not close roads or block access to any roads or adjacent lands.
Impact 4.8-4: Temporary displacement of on-street parking	LS	LS	Y	Project would not affect on-street parking.
Impact 4.8-5: Increased traffic safety hazards during construction	PSM	PSM	Y	No difference, Impact TRANS-3. Construction traffic would have the potential to conflict with non-project related auto traffic and bike traffic on Calaveras Road; project specific mitigation is included to require construction contractors to prepare project-specific traffic control plans.
Impact 4.8-6: Long-term traffic increases during facility operation	LS	LS	Y	No difference, Impact TRANS-5. Long-term traffic generation is limited to additional chemical and fuel delivery, estimated at approximately one to five per week.
AIR QUALITY				
Impact 4.9-1: Construction emissions of criteria pollutants	PSM	LSM	Y	No difference, Impact AIR-2
Impact 4.9-2: Exposure to diesel particulate matter during construction	LS/PSM	LS	Y	No difference, Impact AIR-3
Impact 4.9-3: Exposure to emissions (possibly including asbestos) tunneling	LS/N/A	N/A	Y	No geologic units contain naturally occurring asbestos, further analysis not needed.
Impact 4.9-4: Air pollutant emissions during project operation	LS	LS	Y	No difference, Impact AIR-7. Operational emissions would comply with best management practices specified in CEQA guidance, and NOx/ROG emissions would be less than significance thresholds.
Impact 4.9-5: Odors generated during project operation	LS	LS	Y	No difference, Impact AIR-8. Ammonia unloading station would be designed and operated according to industry practices.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.9-6: Secondary emissions at power plants	LS	LS	Y	No difference, Impact AIR-9.
Impact 4.9-7: Conflict with implementation of applicable regional air quality plans addressing criteria air pollutants and state goals for reducing GHG emissions	LS	LS	Y	No difference, Impact AIR-1, AIR-6, and AIR-9.
NOISE AND VIBRATION				
Impact 4.10-1: Disturbance from temporary construction-related noise increases	PSU	PSM	N	There are two noise sensitive land uses in the project area. Each would be more than 6,000 feet from the nearest active construction site. Noise from construction activities and pile driving is potentially significant. Mitigation Measure NOI-1 would reduce this impact to a less-than-significant level.
Impact 4.10-2: Temporary noise disturbance along construction haul routes	PSM	LS	N	There only two noise sensitive land uses in the project area. One is 2,000 feet from the haul route and the other is 300 feet from the route. This distance, in combination with relatively low anticipated project-related truck volumes results in a LS impact.
Impact 4.10-3: Disturbance due to construction-related vibration	LS	LS	Y	No difference, Impact NOI-2.
Impact 4.10-4: Disturbance due to long-term noise increases	LS	LS	Y	No difference, Impact NOI-5.
PUBLIC SERVICES AND UTILITIES				
Impact 4.11-1: Potential temporary damage to or disruption of existing regional or local public utilities.	LS	LSM	Y	Mitigation Measure UTL-2 would avoid conflicts with existing utilities and coordinate efforts with affected utilities
Impact 4.11-2: Temporary adverse effects on solid waste landfill capacity.	PSM	LS	Y	Existing landfills have sufficient capacity for all project-related solid waste

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.11-3: Impacts related to compliance with statutes and regulations related to solid waste.	PSM	N/A	Y	Existing landfills have sufficient capacity for all project-related solid waste.
Impact 4.11-4: Impacts related to the relocation of utilities.	PSM	N/A	Y	No existing utilities are being relocated.
RECREATIONAL RESOURCES				
Impact 4.12-1: Temporary conflicts with established recreational uses during construction	N/A	LSM	N	Calaveras Road experiences considerable bicycle traffic on the weekends and the East Bay Bicycle Coalition identifies Calaveras Road between I-680 and Milpitas as an on-road route recommended for bicycle travel. Mitigation Measure TRANS-1 would reduce impacts to a less than significant level.
Impact 4.12-2: Conflicts with established recreational uses due to facility siting and project operation	N/A	N/A	Y	No Impact.
AGRICULTURAL RESOURCES				
Impact 4.13-1: Temporary conflicts with established agricultural resources	PSM / N/A	N/A	Y	No impact
Impact 4.13-2: Conversion of farmlands to nonagricultural uses	PSM	LSM	Y	No difference, Impact AG-1.
HAZARDS				
Impact 4.14-1: Potential to encounter hazardous materials in soil and groundwater	LS	LSM	N	Because of the potential to encounter contaminated soils during construction, additional measures are included to protect construction workers, the environment, and public from exposure to hazardous materials. A Construction Risk Management Plan would be required as part of the project.
Impact 4.14-2: Exposure to naturally occurring asbestos	N/A	N/A	Y	Asbestos is not naturally occurring in the project site.

WSIP PEIR Impact	WSIP PEIR Significance Determination (SV-3/SV-5)	SVWTP Project-Level Significance Determination	Same Rationale for Significance Determination as WSIP PEIR? (Y/N)	Notes (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.14-3: Risk of fires during construction	LS	LS	Y	No difference, Impact HAZ-4.
Impact 4.14-4: Gassy conditions in tunnels	LS/N/A	LS	Y	No difference, Impact HAZ-5.
Impact 4.14-5: Exposure to hazardous building materials	N/A	N/A	Y	No impact.
Impact 4.14-6: Accidental hazardous materials release from construction equipment	LS	LS	Y	No difference, Impact HAZ-2.
Impact 4.14-7: Increased use of hazardous materials during operation	LS	LS	Y	No difference, Impact HAZ-6.
Impact 4.14-8: Emission of use of hazardous materials within ¼ mile of a school	N/A	N/A	Y	No schools are located within ¼ mile of the proposed project.
ENERGY				
Impact 4.15-1: Construction-related energy use	PSM	LS	Y	The project-related energy use would be LS, with implementation of greenhouse gas reduction measures, and construction contractors' practices and incentives to use energy efficiently.
Impact 4.15-2: Long-term energy use during operation	PSM	LS	Y	Increases in energy consumption are anticipated to be small relative to total regional water system facilities.

C.3. Mitigation Measure Analysis

Table C-2. Mitigation Measures

WSIP PEIR Mitigation Measures	Applicable to Proposed Project? (Y/N)	Notes (Explain why mitigation measure is either not applicable to proposed project or a different measure is more suitable)
LAND USE AND VISUAL QUALITY		
Measure 4.3-2: *Facility Siting Studies*	N	Project is sited on SFPUC owned lands and no siting study is necessary.
Measure 4.3-5: *Reduce Lighting Effects*	N	Project incorporates Alameda WMP Action des 5F, which calls for permanent lighting on the site to be directed downward and sited and shielded such that it is not highly visible or obtrusive. Therefore, additional mitigation is not necessary.
GEOLOGY, SOILS, AND SEISMICITY		
Measure 4.4-1: *Quantified landslide analysis*	N	Site specific geotechnical studies have verified slope stability during construction would be no impact
Measure 4.4-9: *Characterize extent of expansive or corrosive soil*	N	Site specific geotechnical studies have verified no expansive/corrosive soils exist at site.
BIOLOGICAL RESOURCES		
Measure 4.6-3b: *Standard mitigation measures for specific plants and animals*		
Invertebrates		
I.1 *Valley elderberry longhorn beetle*	N	No habitat present in study area
I.2 *Vernal pool crustaceans*	N	Habitat present along South Quarry Pit but highly disturbed in past and no records within 5 miles of project.
I.3 *Bay checkerspot and callipe silverspot butterflies*	N	Not present in study area
Fish		
F1 *central valley fall- and late-fall run DPS Chinook salmon*	N	Not present in study area
Reptiles and Amphibians		
RA.3 *San Francisco garter snake*	N	Project is not within the species' range and/or no suitable habitat within the study area

WSIP PEIR Mitigation Measures	Applicable to Proposed Project? (Y/N)	Notes (Explain why mitigation measure is either not applicable to proposed project or a different measure is more suitable)
Birds		
B.1 *Swainson's hawk*	N	Not present in study area
B.5 *Least bell's vireo*	N	Not present in study area
B.6 *California black rail; California clapper rail*	N	No habitat present in study area
B.7 *Western snowy plover*	N	No habitat present in study area
Mammals		
M.1 *Salt marsh harvest mouse*	N	No habitat present in study area
M.3 *Riparian woodrat*	N	Not present in study area
Plants		
P.1 *Vernal pool plants*	N	No habitat present in study area
P.2 *Delta button-celery*	N	No habitat present in study area
P.3 *large-flowered fiddleneck*	N	No habitat present in study area
P.4 *San Francisco woolly sunflower, Marin western flax, fountain thistle*	N	No habitat present in study area
TRAFFIC, TRANSPORTATION, AND CIRCULATION		
Measure 4.8-1a, *Traffic Control Plan Measures*: Require contractors to prepare traffic control plans	Y	Project incorporates a substantially modified version of this measure, revised to be project-specific and remove language in the WSIP measure that is not relevant to the proposed project.
AIR QUALITY		
Measure 4.9-2b: *Vacate SFPUC Land Managers' Residences in Sunol Valley*	N	The watershed keeper residence is located approximately 1.3 miles from the nearest project site boundary. Given the distance to this receptor potential health risks associated with DPM are considered less than significant.
NOISE AND VIBRATION		
Measure 4.10-1a: *Noise Controls*	Y	Replaced by Mitigation Measure NOI-1 which focuses on project-specific impact mechanisms.
Measure 4.10-1b: *Vacate SFPUC Caretaker's Residence at Tesla Portal*	N	Not applicable because this residence is not in the project area.
Measure 4.10-2a: *Limiting Hourly Truck Volume*	N	Not applicable because trucking impact is less than significant under the proposed project.

WSIP PEIR Mitigation Measures	Applicable to Proposed Project? (Y/N)	Notes (Explain why mitigation measure is either not applicable to proposed project or a different measure is more suitable)
Measure 4.10-2b: *Restricting Truck Operations*	N	Not applicable because trucking impact is less than significant under the proposed project.
Measure 4.10-2c: *Vacate SFPUC Land Manager's Residence*	N	Not applicable because this residence is not in the project area.
Measure 4.10-3a: *Vibration Controls to Prevent Cosmetic or Structural Damage*	N	Not applicable because the project will not result in significant vibration impacts.
Measure 4.10-3b: *Limit Vibration Levels at or Below Vibration Perception Threshold*	N	Not applicable the project will not result in significant vibration impacts.
Measure 4.10-3c: *Limit Tunnel-Related Detonation to Daylight Hours*	Y	Not applicable because the project will not result in significant vibration impacts.
PUBLIC SERVICES AND UTILITIES		
Measure 4.11-2: *Waste Reduction Measures*	N	Sufficient capacity exists in current landfills
AGRICULTURAL RESOURCES		
Measure 4.13-1b: *Avoidance or Soil Stockpiling*	Y	The proposed project avoids agricultural resources to the extent feasible

Appendix D

Air Quality Background Data

Appendix D

Air Quality Background Data

(Based on Draft GHG guidance, August 2007)

Sunol WTP Delivery Truck Tailpipe Emissions

Basis: 5 trucks/week; 52 weeks/yr; 50 miles/trip; 13,000 VMT/year on-road travel

Pollutant	EMFAC Emission Factor for 2012 (lbs/mile)	Annual Travel (miles/year)	On-Road Tailpipe Emissions (tons/year)
CO	0.0155	13000	0.10
Nox	0.0173	13000	0.11
ROG	0.0022	13000	0.014
Sox	0.000027	13000	0.00018
PM	0.00065	13000	0.0042

Sunol WTP Emergency Engine Testing Emissions

Basis: 600-kW engine; 50 hrs/year testing; 30,000 kW-hr/yr usage; EPA Tier-2 Emission Limits

Pollutant	EPA Tier-2 Emission Limit (g/kW-hr)	Annual Usage (kW-hr/year)	Annual Emissions (tons/year)
CO	0.46	30000	0.015
Nox	6.7	30000	0.221
ROG	0.31	30000	0.010
PM	0.15	30000	0.005

Sunol WTP Greenhouse Gas Emissions

Basis:

5 trucks/week; 52 weeks/yr; 50 miles/trip; 13,000 VMT/year on-road travel; 5 miles/gallon
500 kWe electricity purchases, 8760 hrs/year; 4,380 MW-hrs/year purchased
600 kW generator operates 50 hrs/yr @ 41.5 gal/hr fuel usage

Delivery Trucks:

13,000 VMT/year at 5 miles/gallon = 2,600 gallons/year (SFPUC GHG guidance)
Diesel truck CO2 emission factor = 9.96 kg CO2/gallon (SFPUC GHG guidance)
CO2 = 2600 gal/yr * 9.96 kg/gal * 1 mt/1000kg = 25.9 metric tons CO2 per year
CH4 = 13,000 mi/yr * 0.08 g/mi * 21 GWP /454/2200 = 0.02 MT/yr CO2-eq
N20 = 13,000 mi/yr * 0.05 g/mi * 310 GWP /454/2200 = 0.20 MT/yr CO2-eq
Total CO2-eq = 25.9 + 0.02 + 0.2 = 26.1 MT CO2-eq/yr

Purchased Electricity:

750 MW-hrs/year purchased

CO_2 emission factor for CAL1 e-grid subregion = 804.5 lbs/MW-hr (SFPUC GHG guidance)

CO_2 = 750 MW-hrs/yr * 805.4 lbs/MW-hr / 2200 lbs/metric ton = 274 metric tons CO_2 per year

CH_4 = 750 MW-hrs/yr * 0.0067 lbs/MWhr * 21 GWP / 2200 = 0.1 MT CO_2-eq/yr

N_2O = 750 MW-hrs/yr * 0.0037 lbs/MWhr * 310 GWP / 2200 = 1 MT CO_2-eq/yr

Total CO_2-eq = 274 + 0.1 + 1 = 276 MT CO_2-eq/yr

Emergency Generator Testing:

Fuel Usage at 2500 kWe = 173 gal/hr; fuel usage at 600 kWe = 41.5 gal/hr

Diesel fuel CO_2 emission factor = 10.15 kg CO_2/gallon (CCAR Table C-1)

Annual fuel usage = 41.5 gal/hr * 50 hrs/yr = 2,076 gal/yr

CO_2 = 2,076 gal/yr * 10.15 kg/gal * 1 mt/1000 kg = 21 metric tons/year

JW
11/20/08

SVWTP NH_3 Emission Rate

Alt Release = 2.9 lbs/min NH_3
21.4 lbs NH_3 total release
241 yds to ERPG-2
? yds to odor threshold
Naka Nursery 6825 Calaveras Rd

Filling Emissions:

VP @ 20°C, 30% NH_3 = 118 mm Hg
Vp @ 19% NH_3 = 75 mm Hg = 0.10 atm

Assume fill 1 - 8000 gal tank in one hour
Q = 8,000 gal / 3600 sec = 2.2 gal/sec / 7.48
= 0.30 ft^3/sec

NH_3 emission rate = $0.30 \frac{ft^3}{sec} \times 0.10$ atm = $0.03 \frac{ft^3}{sec}$

Assume V_m = $370 \frac{ft^3}{lbmole}$

lbmoles/rate = $0.03 \frac{ft^3}{sec} \times \frac{1 \text{ lbmole}}{370 ft^3} \times 17 \frac{lbs}{lbmole} \times \frac{454 g}{lb}$

= ~~6.2~~ 0.63 g/sec NH_3 during filling

Odor Threshold = 5 ppm x 710 $\frac{ug/m^3}{ppm}$

= 3,550 ug/m^3

SCREEN3 Results

Impact @ 100 m = 2,512 ug/m^3

Interpolated distance to 3,550 ug/m^3 odor threshold =

$$100m \times \frac{2512}{3550} \simeq 70 \text{ meters}$$

CLIP, Chemical Laboratory Information Profile

"Only when you know the hazards, can you take the necessary precautionary measures."

Ammonia, aqueous $NH_3(aq)$ CAS No.: 1336-21-6

(approximately 30% NH_3)

Synonyms: Aqua ammonia, ammonia water, Spirit of Hartshorn, ammonium hydroxide

Physical Properties

A colorless alkaline liquid with a pungent odor.

Vapor pressure at 20 °C:	118 torr
Melting point:	−77 °C
Boiling point:	36 °C

Exposure Limits

Limits pertain to the vapor, CAS No. 7664-41-7, not the liquid:

OSHA PEL:	50 ppm
ACGIH TLV:	25 ppm
STEL:	35 ppm

Hazardous Characteristics

Overall toxicity	Flammability	Destructive to skin/eye	Absorbed through skin	Sensitizer?	Self-reactive?	Incompatible with:
3	1	3	0	No	No	Acids, halogens and other oxidizing agents; aluminum, zinc, mercury, and other metals; silver oxide, hypochlorite solution.*

0: None (or very low); 1: Slight; 2: Moderate; 3: High; 4: Severe.

***Reactivity Hazards**

Although generally considered a weak base, aqueous ammonia reacts violently with most acids. It forms explosive compounds with mercury, silver oxide, and other compounds of silver. It corrodes many metals, notably those in Groups IIA, IIB, IIIA, and IIIB. With the halogens it forms the shock-sensitive, explosive nitrogen trihalides. With household bleach (sodium hypochlorite solution) it forms toxic and explosively unstable chloramines. The concentration of ammonia in the air above solutions of aqueous ammonia can be within the explosive limits for ammonia (15–28%). See Bretherick's *Handbook of Reactive Chemical Hazards* for details and for other incompatibilities.

Cited as known to be or reasonably anticipated to be carcinogenic in NTP-9?	No	Identified as a reproductive toxin in Frazier and Hage, *Reproductive Hazards of the Workplace*?	No

Typical symptoms of acute exposures:

Irritation of skin and eyes, which can be severe. Sore throat, abdominal pain, nausea if ingested. Coughing, labored breathing if inhaled; inhalation can result in lung edema but the symptoms often are delayed up to a few hours. Physical exertion during this period can aggravate the symptoms when they do appear. Rest and hospitalization are essential.

Principal target organ(s) or system(s):

Respiratory system, eyes, skin.

Storage Requirements

Store separately, away from acids and oxidizing agents, in a cool, dry, well-ventilated location.

Additional Remarks

In a warm environment, high pressures can develop within a closed container. The aqueous ammonia solutions sold for household uses typically contain approximately 14% ammonia along with a little soap or detergent and perfume. The formula, NH_4OH, sometimes used for aqueous ammonia solutions, is incorrect; the molecular species, NH_4OH, does not exist.

Notes

ReadMe

This Chemical Laboratory Information Profile is ***not*** a Material Safety Data Sheet. It is a brief summary for teachers and their students that describes some of the hazards of this chemical as it is typically used in laboratories. On the basis of your knowledge of these hazards and before using or handling this chemical, *you need to select the precautions and first-aid procedures to be followed.* For that information as well as for other useful information, refer to Material Safety Data Sheets, container labels, and references in the scientific literature that pertain to this chemical.

Reproductive Toxins

Some substances that in fact are reproductive toxins are not yet recognized as such. For the best readily available and up-to-date information, refer to "DART/ETIC". See the TOXNET home page at *www.sis.nlm.nih.gov* and click on "Toxicology search". *Note that some of the data in DART/ETIC have not been peer-reviewed.* See also Linda M. Frazier and Marvin L. Hage, *Reproductive Hazards of the Workplace*; Wiley, 1998; and T. H. Shepard, *Catalog of Teratogenic Agents*, 9th ed.; Johns Hopkins University Press, 1998.

Abbreviations

ACGIH TLV—American Conference of Governmental Industrial Hygienists–Threshold Limit Value. C—Ceiling. CAS—Chemical Abstracts Service. mg/m^3—milligrams per cubic meter. NA—Not applicable. NE—Not established. NI—No information. NTP-9—National Toxicology Program, Ninth Annual Report on Carcinogens. OSHA PEL—Occupational Safety and Health Administration–Permissible Exposure Limit. ppm—parts per million. STEL/C—Short-term exposure limit and ceiling.

Prepared by: Jay A. Young

Date of preparation: October 10, 2002


\\Filecorp1\Pub\Branch\Bellevue\Common\DAMESW~1\Models\SCREEN3\SCREEN3.EXE
****** SCREEN3 MODEL ******
**** VERSION DATED 96043 ****
ENTER TITLE FOR THIS RUN (UP TO 79 CHARACTERS):
SUWTP Ammonia During Tank Filling
ENTER SOURCE TYPE: P FOR POINT
F FOR FLARE
A FOR AREA
V FOR VOLUME
ALSO ENTER ANY OF THE FOLLOWING OPTIONS ON THE SAME LINE:
N - TO USE THE NON-REGULATORY BUT CONSERVATIVE BRODE 2 MIXING HEIGHT OPTION,
nn.n - TO USE AN ANEMOMETER HEIGHT OTHER THAN THE REGULATORY (DEFAULT) 10 METER HEIGHT,
SS - TO USE A NON-REGULATORY CAVITY CALCULATION ALTERNATIVE
Example - PN 7.0 SS (entry for a point source)
ENTER SOURCE TYPE AND ANY OF THE ABOVE OPTIONS:
p
ENTER EMISSION RATE (G/S):
0.62
ENTER STACK HEIGHT (M):
10
ENTER STACK INSIDE DIAMETER (M):
.5
ENTER STACK GAS EXIT VELOCITY OR FLOW RATE:
OPTION 1 : EXIT VELOCITY (M/S):
DEFAULT - ENTER NUMBER ONLY
OPTION 2 : VOLUME FLOW RATE (M**3/S):
EXAMPLE "VM=20.00"
OPTION 3 : VOLUME FLOW RATE (ACFM):
EXAMPLE "VF=1000.00"
1.1
ENTER STACK GAS EXIT TEMPERATURE (K):
300
ENTER AMBIENT AIR TEMPERATURE (USE 293 FOR DEFAULT) (K):
293
ENTER RECEPTOR HEIGHT ABOVE GROUND (FOR FLAGPOLE RECEPTOR) (M):
1.5
ENTER URBAN/RURAL OPTION (U=URBAN, R=RURAL):
r
CONSIDER BUILDING DOWNWASH IN CALCS? ENTER Y OR N:
y
ENTER BUILDING HEIGHT (M):
8
ENTER MINIMUM HORIZ BLDG DIMENSION (M):
20
ENTER MAXIMUM HORIZ BLDG DIMENSION (M):
20
USE COMPLEX TERRAIN SCREEN FOR TERRAIN ABOVE STACK HEIGHT?
ENTER Y OR N:
n
USE SIMPLE TERRAIN SCREEN WITH TERRAIN ABOVE STACK BASE?
ENTER Y OR N:
n
ENTER CHOICE OF METEOROLOGY:
1 - FULL METEOROLOGY (ALL STABILITIES & WIND SPEEDS)
2 - INPUT SINGLE STABILITY CLASS
3 - INPUT SINGLE STABILITY CLASS AND WIND SPEED
1
USE AUTOMATED DISTANCE ARRAY? ENTER Y OR N:
y
ENTER MIN AND MAX DISTANCES TO USE (M):
10,2000
*** SCREEN AUTOMATED DISTANCES ***
*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
DIST (M) CONC (UG/M**3) STAB U10M (M/S) USTK (M/S) MIX HT (M) PLUME HT (M) SIGMA Y (M) SIGMA Z (M) DWASH
10. .0000 0 .0 .0 .0 .00 .00 .00 NA
100. 2512. 6 1.0 1.0 10000.0 10.64 4.07 7.89 SS
200. 1428. 6 1.0 1.0 10000.0 10.64 7.73 9.20 SS
300. 1002. 6 1.0 1.0 10000.0 10.64 11.23 10.46 SS
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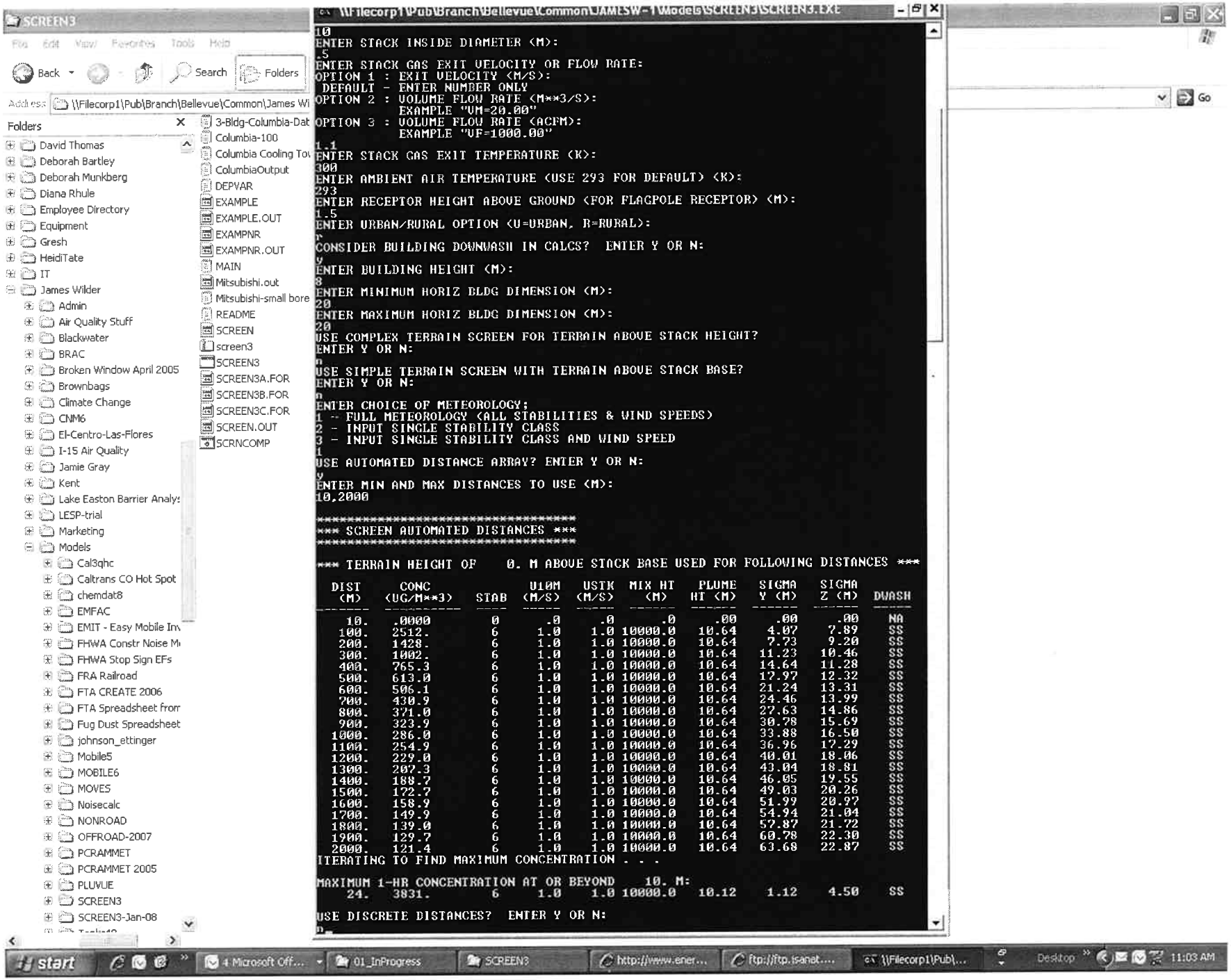
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Deborah Munkberg
Diana Rhule
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James Wilder
Admin
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Blackwater
BRAC
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I-15 Air Quality
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Kent
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Caltrans CO Hot Spot
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FHWA Stop Sign EFs
FRA Railroad
FTA CREATE 2006
FTA Spreadsheet from
Fug Dust Spreadsheet
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ENTER STACK INSIDE DIAMETER (M):
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ENTER STACK GAS EXIT VELOCITY OR FLOW RATE:
OPTION 1 : EXIT VELOCITY (M/S):
DEFAULT - ENTER NUMBER ONLY
OPTION 2 : VOLUME FLOW RATE (M**3/S):
EXAMPLE "VM=20.00"
OPTION 3 : VOLUME FLOW RATE (ACFM):
EXAMPLE "VF=1000.00"
1.1
ENTER STACK GAS EXIT TEMPERATURE (K):
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ENTER AMBIENT AIR TEMPERATURE (USE 293 FOR DEFAULT) (K):
293
ENTER RECEPTOR HEIGHT ABOVE GROUND (FOR FLAGPOLE RECEPTOR) (M):
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ENTER URBAN/RURAL OPTION (U=URBAN, R=RURAL):
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CONSIDER BUILDING DOWNWASH IN CALCS? ENTER Y OR N:
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ENTER BUILDING HEIGHT (M):
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ENTER MAXIMUM HORIZ BLDG DIMENSION (M):
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USE COMPLEX TERRAIN SCREEN FOR TERRAIN ABOVE STACK HEIGHT?
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ENTER CHOICE OF METEOROLOGY:
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USE AUTOMATED DISTANCE ARRAY? ENTER Y OR N:
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500. 613.0 6 1.0 1.0 10000.0 10.64 17.97 12.32 SS
600. 506.1 6 1.0 1.0 10000.0 10.64 21.24 13.31 SS
700. 430.9 6 1.0 1.0 10000.0 10.64 24.46 13.99 SS
800. 371.0 6 1.0 1.0 10000.0 10.64 27.63 14.86 SS
900. 323.9 6 1.0 1.0 10000.0 10.64 30.78 15.69 SS
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1400. 188.7 6 1.0 1.0 10000.0 10.64 46.05 19.55 SS
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1600. 158.9 6 1.0 1.0 10000.0 10.64 51.99 20.97 SS
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1900. 129.7 6 1.0 1.0 10000.0 10.64 60.78 22.30 SS
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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Staging Area 2009.urb9

Project Name: SVWTP Staging Area 2009

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (tons/year unmitigated)	0.02	0.17	0.09	0.00	0.13	0.01	0.14	0.03	0.01	0.04	15.27
2009 TOTALS (tons/year mitigated)	0.02	0.15	0.09	0.00	0.06	0.00	0.06	0.01	0.00	0.01	15.27
Percent Reduction	0.00	14.96	0.00	0.00	51.06	84.83	53.18	51.05	84.85	58.74	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2009	0.02	0.17	0.09	0.00	0.13	0.01	0.14	0.03	0.01	0.04	15.27
Fine Grading 12/15/2009-12/31/2009	0.02	0.17	0.09	0.00	0.13	0.01	0.14	0.03	0.01	0.04	15.27
Fine Grading Dust	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.03	0.00	0.03	0.00
Fine Grading Off Road Diesel	0.02	0.17	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	14.61
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66

Phase Assumptions

Phase: Fine Grading 12/15/2009 - 12/31/2009 - Default Fine Site Grading Description

Total Acres Disturbed: 4

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Spoils Haul 2009.urb9

Project Name: SVWTP Spoils Haul 2009

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (tons/year unmitigated)	0.68	6.28	3.09	0.00	13.76	0.31	14.07	2.88	0.29	3.16	614.42
2009 TOTALS (tons/year mitigated)	0.68	5.58	3.09	0.00	6.74	0.10	6.84	1.41	0.09	1.50	614.42
Percent Reduction	0.00	11.11	0.00	0.00	51.04	68.44	51.43	51.02	68.45	52.60	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2009	0.68	6.28	3.09	0.00	13.76	0.31	14.07	2.88	0.29	3.16	614.42
Mass Grading 01/01/2009-12/31/2009	0.68	6.28	3.09	0.00	13.76	0.31	14.07	2.88	0.29	3.16	614.42
Mass Grading Dust	0.00	0.00	0.00	0.00	13.75	0.00	13.75	2.87	0.00	2.87	0.00
Mass Grading Off Road Diesel	0.58	4.65	2.37	0.00	0.00	0.25	0.25	0.00	0.23	0.23	392.48
Mass Grading On Road Diesel	0.10	1.62	0.51	0.00	0.01	0.06	0.07	0.00	0.06	0.06	205.33
Mass Grading Worker Trips	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.62

Phase Assumptions

Phase: Mass Grading 1/1/2009 - 12/31/2009 - Spoils On-site Haul Routes

Total Acres Disturbed: 28

Maximum Daily Acreage Disturbed: 7

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 300 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 390.8

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Expansion 2010.urb9

Project Name: SVWTP Expansion 2010

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (tons/year unmitigated)	1.13	10.61	6.54	0.01	1.67	0.48	2.14	0.35	0.44	0.79	1,428.97
2010 TOTALS (tons/year mitigated)	1.13	9.76	6.54	0.01	0.83	0.24	1.07	0.18	0.22	0.39	1,428.97
Percent Reduction	0.00	8.00	0.00	0.00	49.98	50.68	50.14	49.44	50.75	50.16	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010	1.13	10.61	6.54	0.01	1.67	0.48	2.14	0.35	0.44	0.79	1,428.97

Mass Grading 01/04/2010-03/26/2010	0.27	3.70	1.35	0.00	1.65	0.15	1.79	0.35	0.13	0.48	481.21
Mass Grading Dust	0.00	0.00	0.00	0.00	1.63	0.00	1.63	0.34	0.00	0.34	0.00
Mass Grading Off Road Diesel	0.09	0.75	0.37	0.00	0.00	0.04	0.04	0.00	0.03	0.03	67.42
Mass Grading On Road Diesel	0.18	2.95	0.94	0.00	0.01	0.11	0.12	0.00	0.10	0.10	410.74
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06
Trenching 04/05/2010-06/25/2010	0.41	3.60	1.71	0.00	0.00	0.16	0.16	0.00	0.14	0.14	413.74
Trenching Off Road Diesel	0.40	3.59	1.56	0.00	0.00	0.16	0.16	0.00	0.14	0.14	400.74
Trenching Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00
Demolition 07/05/2010-09/24/2010	0.11	0.79	0.50	0.00	0.00	0.05	0.05	0.00	0.05	0.05	72.82
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.10	0.79	0.46	0.00	0.00	0.05	0.05	0.00	0.04	0.04	68.44
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
Demo Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.82
Building 09/27/2010-12/03/2010	0.29	2.21	2.77	0.00	0.01	0.10	0.12	0.00	0.10	0.10	432.21
Building Off Road Diesel	0.16	0.98	0.50	0.00	0.00	0.06	0.06	0.00	0.05	0.05	93.13
Building Vendor Trips	0.08	1.15	0.77	0.00	0.01	0.04	0.05	0.00	0.04	0.04	208.51
Building Worker Trips	0.05	0.08	1.50	0.00	0.01	0.00	0.01	0.00	0.00	0.01	130.57
Asphalt 11/29/2010-12/31/2010	0.05	0.30	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	28.99
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.05	0.29	0.17	0.00	0.00	0.02	0.02	0.00	0.02	0.02	24.57
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Paving Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.82

Phase Assumptions

Phase: Demolition 7/5/2010 - 9/24/2010 - Default Building Construction Description

Building Volume Total (cubic feet): 10000

Building Volume Daily (cubic feet): 100

On Road Truck Travel (VMT): 4.63

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Mass Grading 1/4/2010 - 3/26/2010 - Default Fine Site Grading Description

Total Acres Disturbed: 28

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 377 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3400.69

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 4/5/2010 - 6/25/2010 - Default Asphalt Description

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 11/29/2010 - 12/31/2010 - Type Your Description Here

Acres to be Paved: 1

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

3 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/27/2010 - 12/3/2010 - Default Architectural Coating Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

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1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name:

Project Name: SVWTP Pipeline Work 2010

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (tons/year unmitigated)	0.30	2.23	1.28	0.00	6.14	0.12	6.26	1.28	0.11	1.39	218.60
2010 TOTALS (tons/year mitigated)	0.30	1.90	1.28	0.00	3.01	0.02	3.02	0.63	0.02	0.64	218.60
Percent Reduction	0.00	14.94	0.00	0.00	51.07	84.73	51.69	51.06	84.76	53.64	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2010	0.30	2.23	1.28	0.00	6.14	0.12	6.26	1.28	0.11	1.39	218.60
Fine Grading 08/16/2010-12/31/2010	0.15	1.25	0.68	0.00	6.14	0.06	6.20	1.28	0.06	1.34	117.46
Fine Grading Dust	0.00	0.00	0.00	0.00	6.14	0.00	6.14	1.28	0.00	1.28	0.00
Fine Grading Off Road Diesel	0.15	1.25	0.62	0.00	0.00	0.06	0.06	0.00	0.06	0.06	112.37
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.10
Trenching 08/16/2010-12/31/2010	0.15	0.98	0.60	0.00	0.00	0.05	0.05	0.00	0.05	0.05	101.14
Trenching Off Road Diesel	0.14	0.97	0.50	0.00	0.00	0.05	0.05	0.00	0.05	0.05	92.22
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.92

Phase Assumptions

Phase: Fine Grading 8/16/2010 - 12/31/2010 - Default Fine Site Grading Description

Total Acres Disturbed: 1

Maximum Daily Acreage Disturbed: 0.08

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1034 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 8/16/2010 - 12/31/2010 - Default Asphalt Description

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

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1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Expansion TWR 2011.urb9

Project Name: SVWTP Expansion and TWR 2011

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	0.92	7.69	5.49	0.00	19.27	0.37	19.64	4.03	0.34	4.36	1,111.06
2011 TOTALS (tons/year mitigated)	0.92	6.90	5.49	0.00	9.47	0.14	9.61	1.98	0.13	2.11	1,111.06
Percent Reduction	0.00	10.23	0.00	0.00	50.87	61.74	51.07	50.84	61.84	51.69	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	0.92	7.69	5.49	0.00	19.27	0.37	19.64	4.03	0.34	4.36	1,111.06

Mass Grading 01/03/2011-03/25/2011	0.12	1.31	0.59	0.00	19.26	0.06	19.31	4.02	0.05	4.07	164.42
Mass Grading Dust	0.00	0.00	0.00	0.00	19.25	0.00	19.25	4.02	0.00	4.02	0.00
Mass Grading Off Road Diesel	0.08	0.70	0.36	0.00	0.00	0.04	0.04	0.00	0.03	0.03	67.42
Mass Grading On Road Diesel	0.04	0.61	0.20	0.00	0.00	0.02	0.03	0.00	0.02	0.02	93.94
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06
Trenching 04/04/2011-06/24/2011	0.39	3.32	1.63	0.00	0.00	0.14	0.14	0.00	0.13	0.13	413.75
Trenching Off Road Diesel	0.38	3.32	1.49	0.00	0.00	0.14	0.14	0.00	0.13	0.13	400.74
Trenching Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.01
Demolition 07/05/2011-09/23/2011	0.10	0.74	0.47	0.00	0.00	0.05	0.05	0.00	0.04	0.04	71.61
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.10	0.73	0.43	0.00	0.00	0.04	0.04	0.00	0.04	0.04	67.30
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
Demo Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.76
Building 09/26/2011-12/02/2011	0.27	2.03	2.59	0.00	0.01	0.10	0.11	0.00	0.09	0.09	432.29
Building Off Road Diesel	0.15	0.92	0.49	0.00	0.00	0.06	0.06	0.00	0.05	0.05	93.13
Building Vendor Trips	0.08	1.04	0.72	0.00	0.01	0.04	0.05	0.00	0.04	0.04	208.51
Building Worker Trips	0.04	0.08	1.38	0.00	0.01	0.00	0.01	0.00	0.00	0.00	130.65
Asphalt 11/28/2011-12/30/2011	0.05	0.28	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	28.99
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.04	0.28	0.17	0.00	0.00	0.02	0.02	0.00	0.02	0.02	24.57
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Paving Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.83

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Phase Assumptions

Phase: Demolition 7/5/2011 - 9/23/2011 - Default Building Construction Description

Building Volume Total (cubic feet): 10000

Building Volume Daily (cubic feet): 100

On Road Truck Travel (VMT): 4.63

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Mass Grading 1/3/2011 - 3/25/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 28

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 5354 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 777.78

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 4/4/2011 - 6/24/2011 - Default Asphalt Description

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 11/28/2011 - 12/30/2011 - Type Your Description Here

Acres to be Paved: 1

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

3 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/26/2011 - 12/2/2011 - Default Architectural Coating Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

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1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Pipeline 2010.urb9

Project Name: SVWTP Pipeline Work 2011

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	2.34	19.28	17.56	0.02	16.05	0.88	16.92	3.36	0.80	4.17	3,407.80
2011 TOTALS (tons/year mitigated)	2.34	17.46	17.56	0.02	7.89	0.36	8.25	1.66	0.33	1.99	3,407.80
Percent Reduction	0.00	9.47	0.00	0.00	50.81	59.21	51.25	50.64	59.41	52.33	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2011	2.34	19.28	17.56	0.02	16.05	0.88	16.92	3.36	0.80	4.17	3,407.80
Building 01/03/2011-12/30/2011	1.52	12.54	13.93	0.02	0.07	0.55	0.62	0.03	0.50	0.52	2,638.11
Building Off Road Diesel	0.90	6.76	3.02	0.00	0.00	0.33	0.33	0.00	0.30	0.30	874.49
Building Vendor Trips	0.39	5.39	3.74	0.01	0.04	0.20	0.24	0.01	0.18	0.20	1,084.23
Building Worker Trips	0.23	0.40	7.17	0.01	0.03	0.02	0.05	0.01	0.01	0.03	679.39
Fine Grading 01/03/2011-12/30/2011	0.45	4.35	2.12	0.00	15.97	0.20	16.17	3.34	0.18	3.52	506.71
Fine Grading Dust	0.00	0.00	0.00	0.00	15.97	0.00	15.97	3.33	0.00	3.33	0.00
Fine Grading Off Road Diesel	0.37	3.05	1.55	0.00	0.00	0.15	0.15	0.00	0.14	0.14	292.15
Fine Grading On Road Diesel	0.08	1.30	0.42	0.00	0.01	0.05	0.05	0.00	0.04	0.05	201.30
Fine Grading Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.26
Trenching 01/03/2011-12/30/2011	0.36	2.38	1.52	0.00	0.00	0.13	0.13	0.00	0.12	0.12	262.98
Trenching Off Road Diesel	0.35	2.37	1.27	0.00	0.00	0.13	0.13	0.00	0.12	0.12	239.77
Trenching Worker Trips	0.01	0.01	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.21

Phase Assumptions

Phase: Fine Grading 1/3/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 1

Maximum Daily Acreage Disturbed: 0.08

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1034 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 384.62

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 1/3/2011 - 12/30/2011 - Default Asphalt Description

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Building Construction 1/3/2011 - 12/30/2011 - Type Your Description Here

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

2 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Treated Water 2012.urb9

Project Name: SVWTP Treated Water Reservoir 2012

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	0.82	6.89	4.99	0.00	19.27	0.32	19.59	4.03	0.29	4.32	1,029.38
2011 TOTALS (tons/year mitigated)	0.82	6.21	4.99	0.00	9.47	0.13	9.60	1.98	0.12	2.10	1,029.38
Percent Reduction	0.00	9.83	0.00	0.00	50.88	58.95	51.01	50.85	59.07	51.40	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2011	0.82	6.89	4.99	0.00	19.27	0.32	19.59	4.03	0.29	4.32	1,029.38
Mass Grading 01/03/2011-03/25/2011	0.12	1.25	0.57	0.00	19.26	0.05	19.31	4.02	0.05	4.07	154.36
Mass Grading Dust	0.00	0.00	0.00	0.00	19.25	0.00	19.25	4.02	0.00	4.02	0.00
Mass Grading Off Road Diesel	0.08	0.70	0.36	0.00	0.00	0.04	0.04	0.00	0.03	0.03	67.42
Mass Grading On Road Diesel	0.03	0.54	0.18	0.00	0.00	0.02	0.02	0.00	0.02	0.02	83.88
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06
Trenching 04/04/2011-06/24/2011	0.39	3.32	1.63	0.00	0.00	0.14	0.14	0.00	0.13	0.13	413.75
Trenching Off Road Diesel	0.38	3.32	1.49	0.00	0.00	0.14	0.14	0.00	0.13	0.13	400.74
Trenching Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.01
Building 09/26/2011-12/02/2011	0.27	2.03	2.59	0.00	0.01	0.10	0.11	0.00	0.09	0.09	432.29
Building Off Road Diesel	0.15	0.92	0.49	0.00	0.00	0.06	0.06	0.00	0.05	0.05	93.13
Building Vendor Trips	0.08	1.04	0.72	0.00	0.01	0.04	0.05	0.00	0.04	0.04	208.51
Building Worker Trips	0.04	0.08	1.38	0.00	0.01	0.00	0.01	0.00	0.00	0.00	130.65
Asphalt 11/28/2011-12/30/2011	0.05	0.28	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	28.99
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.04	0.28	0.17	0.00	0.00	0.02	0.02	0.00	0.02	0.02	24.57
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Paving Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.83

Phase Assumptions

Phase: Mass Grading 1/3/2011 - 3/25/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 28

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 5354 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

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On Road Truck Travel (VMT): 694.44

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 4/4/2011 - 6/24/2011 - Default Asphalt Description

Off-Road Equipment:

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 11/28/2011 - 12/30/2011 - Type Your Description Here

Acres to be Paved: 1

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

3 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/26/2011 - 12/2/2011 - Default Architectural Coating Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

1 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day

1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mslavick\Application Data\Urbemis\Version9a\Projects\SVWTP Pipeline 2012.urb9

Project Name: SVWTP Pipeline Work 2012

Project Location: Alameda County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.10	0.74	0.45	0.00	2.33	0.04	2.37	0.49	0.03	0.52	83.08
2012 TOTALS (tons/year mitigated)	0.10	0.63	0.45	0.00	1.14	0.01	1.15	0.24	0.01	0.24	83.08
Percent Reduction	0.00	14.94	0.00	0.00	51.07	84.70	51.60	51.06	84.73	53.30	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2012	0.10	0.74	0.45	0.00	2.33	0.04	2.37	0.49	0.03	0.52	83.08
Fine Grading 01/02/2012-02/22/2012	0.05	0.42	0.24	0.00	2.33	0.02	2.35	0.49	0.02	0.51	44.64
Fine Grading Dust	0.00	0.00	0.00	0.00	2.33	0.00	2.33	0.49	0.00	0.49	0.00
Fine Grading Off Road Diesel	0.05	0.42	0.22	0.00	0.00	0.02	0.02	0.00	0.02	0.02	42.70
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94
Trenching 01/02/2012-02/22/2012	0.05	0.33	0.22	0.00	0.00	0.02	0.02	0.00	0.02	0.02	38.44
Trenching Off Road Diesel	0.05	0.32	0.18	0.00	0.00	0.02	0.02	0.00	0.02	0.02	35.04
Trenching Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39

Phase Assumptions

Phase: Fine Grading 1/2/2012 - 2/22/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 1

Maximum Daily Acreage Disturbed: 0.08

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1034 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 1/2/2012 - 2/22/2012 - Default Asphalt Description

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

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1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

2 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Appendix E

Biological Resources Background Report

Appendix E

Biological Survey Report for the Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir

Introduction

This report summarizes biological surveys and data collection efforts conducted for the San Francisco Public Utilities Commission's (SFPUC's) proposed Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir (proposed project).

May & Associates' botanists conducted botanical surveys for special-status plant species during the spring and summer 2005 and 2006, and Jones & Stokes botanists conducted botanical surveys on additional areas not covered in the 2005/2006 surveys in spring 2007. Tree surveys were conducted by Jones & Stokes biologists in November 2007. Jones & Stokes wildlife biologists conducted reconnaissance-level habitat-based wildlife field surveys in summer and fall 2007. A Jones & Stokes botanist/wetland ecologist conducted a formal delineation of waters of the United States, including wetlands in October 2007. Methodology and results of these surveys are described below.

2005-2006 Botanical Surveys

May & Associates' botanists conducted botanical surveys for special-status species according to California Department of Fish and Game (CDFG) guidelines (CDFG, 2000) on the following dates: March 23, May 25, and July 28, 2005, and March 30, May 15, and July 14, 2006. Surveys were conducted on these dates for SFPUC's Alameda Siphons project and for the Irvington Tunnel No. 2 project, and encompassed some of the proposed project area.

Methodology

A list of special-status plants was developed during data compilation to focus the botanical plant survey timing on the optimum time periods to detect special-status plant species, if present. Survey timing was based on the reported blooming period for the targeted species, and then adjusted annually based on local conditions (e.g. temperature, rainfall, observed local blooming patterns, and observations of nearby known special-status species blooming periods). Botanical surveys were also timed to occur during the optimum growing season for most plant species known from the region (i.e., early spring, late spring, and summer) in order to detect as many plant species that were present in the study area as possible.

All plant species encountered during the botanical surveys were identified to the genus or species level. For all species that were closely related to a targeted sensitive plant species, or whose identification could not be conclusively determined in the field, a reference specimen was collected, then the plant was keyed in the laboratory using a dissecting microscope and May & Associates' in-house herbarium collection (for common forbs and grasses). In some instances, the reference specimen was also compared to herbarium specimens located at the University of California, Berkeley or the University of California at Davis to confirm the identification of the plant.

Results

Despite the presence of potentially suitable habitat for as many as 18 special status species, no special status plant species were found during the 2005 or 2006 botanical surveys. Sensitive plant communities located in the study area included willow riparian forest and scrub and wetlands.

Detailed survey results are found in the SFPUC New Irvington Tunnel and Alameda Siphon Upgrade Projects Botanical Survey Report 2005-2006 (May & Associates, 2006).

2007 Botanical Surveys

In April and June 2007, Jones & Stokes botanists conducted additional special-status plants surveys in areas that were not included in the 2005–2006 surveys. Two surveys were conducted to capture various flowering times of special-status species.

Methodology

The special status plant survey focused on species identified as having potential to be found in the study area by May and Associates (2006). Survey methods followed CDFG protocols for preparation of botanical inventories for CEQA. A list of special-status plant species with the potential to occur in the project area was generated using existing information from May & Associates (2006) and the California Natural Diversity Database (2007) (**Table 1**, following the text). The study area for the survey consisted of the location of proposed new facilities (flocculation and sedimentation basins, chlorine contact tank, chemical storage building, and treated water reservoir) adjacent to the existing SVWTP.

During the survey, Jones & Stokes botanist Joel Gerwein traversed the study area by foot along meandering transects. Gerwein determined the location and direction of transects by visually assessing the terrain ahead for microhabitats with higher potential for the occurrence of special-status species, as indicated by the plant community, topography, slope aspect, and presence of features such as riparian vegetation or wetlands. All plants encountered along these transects were identified to the extent possible; at a minimum, every plant was thoroughly examined to determine whether it was a special-status taxon. A checklist of plant species observed was accumulated for the study area.

Results

The study area contains a number of vegetation communities, including non-native grasslands, mixed oak woodland, and willow riparian forest and scrub. A small portion of Alameda Creek and a small seasonal wetland adjacent to Alameda Creek are also located in the study area. No special status plant species were identified during the surveys. Sensitive plant communities, including willow riparian forest and scrub and one seasonal wetland, were identified in the study area.

A portion of the proposed site of the treated water reservoir and chlorine contact tank supports a significant component of native grasses, notably blue wildrye (*Elymus glaucus*). Because the site appeared to have been disturbed for construction in the past, it is likely that the native bunchgrasses present were planted after the last disturbance during post-construction restoration.

Wildlife Reconnaissance Surveys

Jones & Stokes wildlife biologists with experience in the project region conducted reconnaissance-level habitat-based field assessments to determine the presence, distribution, and amount of habitat capable of supporting special-status wildlife species that could occur in the study area. Prior to the field visit biologist

generated a list of wildlife species with the potential to occur in the project area using CNDDB (2007), U.S. Fish and Wildlife Service species lists, and professional opinion. Following the field visit that list was finalized, including note on whether habitat is available in the project area for each species (**Table 2**, following the text). The field surveys were conducted on June 21 and October 18, 2007.

Methodology

The wildlife survey study area covered the entire project area. Biologists also walked along Alameda Creek in the vicinity of the project, evaluating the creek's suitability for special-status fish, amphibians and aquatic reptiles.

Surveys were conducted by walking meandering transects through the study area. The biologist noted each habitat type present and evaluated it for potential to support special-status species. The wildlife biologist took photographs of portions of the project area and made notes describing the habitats present. No focused searches for nests of migratory birds or searches for dens of burrowing species were conducted during the surveys; however, nests and burrows were noted when they were observed. No protocol-level surveys were conducted.

Results

Though no special-status species were observed during reconnaissance-level wildlife surveys, habitat is present for several special-status species. These species include California tiger salamander (*Ambystoma californiense*) (upland habitat), California red-legged frog (*Rana aurora draytonii*), foothill yellow-legged frog (*Rana boylii*), western pond turtle (*Clemmys marmorata*), Alameda whipsnake (*Mastcophis lateralis euryxanthus*), golden eagle (*Aquila chrysaetos*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), western burrowing owl (*Athene cunicularia hypugaea*), pallid bat (*Antrozous pallidus*), and hoary bat (*Lasiurus cinereus*) (**Table 2**, following the text).

Wetland Delineation

Waters and wetlands of the United States in the study area were delineated in November of 2006 (Arcadis, 2006), and updated October 18, 2007, March 6, 2008, and February 4, 2009 by an ICF Jones & Stokes botanist/wetland ecologist.

Methodology

All delineations were conducted using the routine on-site determination method described in the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987), and the supplemental procedures and wetland indicators described in the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Arid West Region (Environmental Laboratory, 2006). The boundaries of non-wetland waters (i.e., streams) within the project area at each location were identified by locating the ordinary high water mark (OHWM), which represents the lateral limit of USACE jurisdiction over non-tidal, non-wetland waters in the absence of adjacent wetlands (33 Code of Federal Regulations [CFR] 328.4[c]). The OHWM was identified using the field indicators provided in 33 CFR 328.3(e) and 329.11(a)(1), and in recent guidance issued by the USACE.

Additionally, waters under jurisdiction of the state, as regulated by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the CDFG, were delineated. Waters of the state regulated by the RWQCB and CDFG include hydrologic and biologic features that are excluded from federal jurisdiction, such as isolated waters under the Supreme Court's SWANCC decision and riparian areas. These were identified according to guidelines established by these state agencies.

Results

A total of 12.16 acres of waters were delineated in the project area. Of this, 0.26 acres were preliminarily determined to be water of the United States and the State, including a perennial wetland (0.13 acres—0.01 acres within and 0.12 acres outside of the project boundary); a perennial spring wetland (0.04 acres); a perennial stream, Alameda Creek (0.07 acres); and a section of asphalt lined v-ditch with perennial flow (0.02). Features that are not likely to be found to be under state or federal jurisdictional include 11.7 acres of quarry ponds and 0.17 acres of asphalt- or concrete-lined v-ditch.

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Table 1. Special-Status Plant Species with Potential to Occur in the Vicinity of the SUNOL WTP STUDY Area

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Amsinckia lunaris	Bent-flowered fiddleneck	–/–/1B.2	Inner North Coast Ranges, San Francisco Bay Area, west central Great Valley	Coastal bluff scrub, cismontane woodland, valley and foothill grassland from 3 to 500 meters in elevation	Mar-Jun	Suitable habitat present in the study area, but no plants found during detailed botanical surveys.
Astragalus tener var. *tener*	Alkali milk-vetch	–/–/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area	Grassy flats and vernal pool margins, on alkali soils, below 200'	Mar-Jun	No alkaline habitats present in the study area. No plants found during detailed botanical surveys.
Atriplex cordulata	Heartscale	–/–/1B.2	Western Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, alkali scrub, below 660'	May-Oct	No alkaline habitats present in the study area. No plants found during detailed botanical surveys.
Atriplex depressa	Brittlescale	–/–/1B.2	Western and eastern Central Valley and adjacent foothills on west side of Central Valley	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools in alkaline habitats and clay soils from 1 to 320 meters in elevation	May-Oct	No alkaline habitats present in the study area. No plants found during detailed botanical surveys.
Atriplex joaquiniana	San Joaquin spearscale	–/–/1B.2	West edge of Central Valley from Glenn County to Tulare County	Alkali meadow, chenopod scrub, seeps in valley and foothill grassland, often in seasonal alkali wetlands or alkali sink scrub, from 1 to 835 meters in elevation	Apr-Sept	No alkaline habitats present in the study area. No plants found during detailed botanical surveys.
Balsamorhiza macrolepis var. *macrolepis*	Big-scale balsamroot	–/–/1B.2	Scattered occurrences in the Coast Ranges and Sierra Nevada foothills	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes in serpentinite soils, from 90 to 1,400 meters in elevation	Mar-June	Marginally suitable grassland present, but no serpentine soils present in the study area. No plants found during detailed botanical surveys.
Blepharizonia plumosa	Big tarplant	–/–/1B.1	Alameda, Contra Costa, San Joaquin, San Luis Obispo, Solano*, Stanislaus	Dry hills and plains in valley and foothill grassland, clay to clay loam soils, 30-505 meters in elevation	July-Oct	Marginally suitable grassland present. No plants found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Erodium macrophyllum	Round-leaved filaree	–/–/1B.1	Scattered occurrences in the Great Valley, southern North Coast Ranges, San Francisco Bay Area, South Coast Ranges, Channel Islands, Transverse Ranges, and Peninsular Ranges	Grasslands, on friable clay soils	Mar-May	Suitable habitat present in study area, but no plants found during detailed botanical surveys.
Campanula exigua	Chaparral harebell	–/–/1B.2	San Francisco Bay region, northern inner south Coast Ranges: Alameda, Contra Costa, San Benito, Santa Clara, and Stanislaus Counties	Rocky, usually serpentinite, substrates in chaparral habitat; 275 to 1,250 meters in elevation	May-June	Study area lacks serpentine soils and chaparral. No plants found during detailed botanical surveys.
Castilleja affinis ssp. *neglecta*	Tiburon Indian paintbrush	E/T/1B.2	San Francisco Bay Area: Marin, Napa, and Santa Clara Counties	Serpentinite soils in valley and foothill grassland from 60 to 400 meters in elevation	Apr-Jun	Study area lacks serpentine soils. No plants were found during detailed botanical surveys.
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	–/–/1B.2	East San Francisco Bay Area, Salinas Valley, Los Osos Valley	Valley and foothill grassland with alkaline soils from 1 to 230 meters in elevation	Jun-Nov	No alkaline soils with grassland vegetation present. No plants found during detailed botanical surveys.
Chorizanthe robusta var. *robusta*	Robust spineflower	E/–/1B.1	Coastal central California, from San Mateo to Monterey County	Coastal bluff scrub, coastal dunes openings in cismontane woodland, on sandy soil	May-Sep	No habitat present in study area. No plants found during detailed botanical surveys.
Cirsium andrewsii	Franciscan thistle	E/–/1B.2	Coastal California, from Sonoma County to San Mateo County	Coastal bluff scrub, broadleaved upland forest and coastal scrub, sometimes on serpentine seeps, 0-135 meters in elevation.	Mar-Jul	Marginal habitat present in the study area, but no plants found during detailed botanical surveys.
Clarkia concinna ssp. *automixa*	Santa Clara red ribbons	–/–/4.3	Southern San Francisco Bay foothills: Alameda and Santa Clara Counties	Chaparral and cismontane woodland from 90 to 1,500 meters in elevation	Apr-Jul	No habitat present in the study area. No plants found during detailed botanical surveys.
Clarkia franciscana	Presidio clarkia	E/E/1B.1	San Francisco Bay, Presidio, Oakland hills: Alameda and San Francisco Counties	Serpentine outcrops in coastal scrub and valley and foothill grasslands.	May-July	Study area lacks serpentine soils. No plants found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Cordylanthus maritimus ssp. *palustris*	Point Reyes bird's-beak	–/–/1B.2	Coastal northern California, from Humboldt to Santa Clara County; Oregon	Coastal salt marsh	Jun-Oct	No habitat in the study area. No plants found during detailed botanical surveys.
Cordylanthus mollis ssp. hispidus	Hispid bird's-beak	–/–/1B.1	Central Valley: Alameda, Kern, Merced, Placer, and Solano Counties	Meadow, grassland, playa, on alkaline soils, 1-155 meters in elevation	Jun-Sept	No alkaline soils present. No plants found during detailed botanical surveys.
Cordylanthus palmatus	Palmate-bracted bird's-beak	E/E/1B.1	Livermore Valley and scattered locations in the Central Valley from Colusa County to Fresno County	Alkaline clay soils in Chenopod scrub and valley and foothill grasslands	May-Oct	No alkaline soils present. No plants found during detailed botanical surveys.
Coreopsis hamiltonii	Mount Hamilton coreopsis	–/–/1B.2	Diablo Range	Steep shale talus slopes	Mar-May	No habitat in study area. No plants found during detailed botanical surveys.
Deinandra bacigalupi	Livermore tarplant	–/–/1B.2	Endemic to Alameda County (Livermore Valley)	Alkaline meadows, not in Jepson Manual, 150-185 meters in elevation	June-Oct	No alkaline meadows in study area. No plants found during detailed botanical surveys.
Delphinium californicum ssp*. interius*	Hospital Canyon larkspur	–/–/1B.2	Inner South Coast Ranges, eastern San Francisco Bay: Alameda, Contra Costa, Merced, San Benito, Santa Clara, San Joaquin, and San Luis Obispo Counties	Openings in chaparral, mesic cismontane woodland, on moist slopes and ravines, 750-3,600'	Apr-Jun	No chaparral or mesic cismontane woodland habitat present. No plants found during detailed botanical surveys.
Dirca occidentalis	Western leatherwood	–/–/1B.2	San Francisco Bay region, Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma Counties	Broadleafed upland forest, chaparral, closed-cone conifer forests, cismontane woodland, north coast conifer forests, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen & foothill woodland communities.	Jan-Apr	Suitable woodland habitats present in the study area, but no plants were found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Eriogonum luteolum var. *caninum*	Tiburon Buckwheat	–/–/1B.2	Central inner north Coast Range, northern Central coast, and northern San Francisco Bay area: Alameda, Colusa, Lake, Marin, Napa, Santa Clara, San Mateo, Sonoma*	Serpentinite soils in chaparral, coastal prairie, and valley and foothill grassland from 10 to 500 meters in elevation	Jun-Sept	Site lacks serpentine soils, serpentine grassland and chaparral habitats. No plants found during detailed botanical surveys.
Eriogonum nudum var. *decurrens*	Ben Lomond buckwheat	–/–/1B.1	Contra Costa and Santa Cruz Counties	Chaparral, cismontane woodland, maritime ponderosa pine sandhills.	Jun-Oct	No habitat present–site lacks sandy soils. No plants found during detailed botanical surveys.
Eryngium aristulatum var. *hooveri*	Hoover's button celery	–/–/1B.1	San Benito, Santa Clara, and San Luis Obispo Counties	Vernal pools	Jul	No vernal pools present on site. No plants found during detailed botanical surveys.
Eriophyllum jepsonii	Jepson's woolly sunflower	–/–/4.3	Alameda, Contra Costa, Kern, San Benito, Santa Clara, Stanislaus, and Ventura Counties	Chaparral, cismontane woodland, coastal scrub, sometimes serpentinite, on dry, rocky slopes, 1,000 to 3,500'	Apr-Jun	Site lacks serpentine soils with woodland habitats. Study area is below elevation range of species. No plants were found during detailed botanical surveys.
Eschscholzia rhombipetala	Diamond-petaled California poppy	–/–/1B.1	Interior foothills of south Coast Ranges from Contra Costa County to Stanislaus Counties, Carrizo Plain in San Luis Obispo County	Grassland, chenopod scrub, on clay soils, where grass cover is sparse enough to allow growth of low annuals	Mar-Apr	Suitable grassland habitat present in the study area, but no plants were found during detailed botanical surveys
Fritillaria agrestis	Stinkbells	–/–/4.2	Alameda, Contra Costa, Fresno, Kern, Mendocino, Monterey, Mariposa, Placer, Sacramento, Santa Barbara, San Benito, San Luis Obispo, San Mateo, Stanislaus, and Tuolumne Counties	Chaparral, cismontane woodlands, pinyon and juniper woodland, valley and foothill grassland, on clay, sometimes serpentinite substrate; from 10 to 1,555 meters in elevation	Mar-May	Suitable habitat present in study area, but no plants found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Fritillaria liliacea	Fragrant fritillary	–/–/1B.2	Coast Ranges from Marin County to San Benito County	Adobe soils of interior foothills, coastal prairie, coastal scrub, annual grassland, often on serpentinite, below 1,350'	Feb-Apr	Suitable habitat present in study area, but no plants found during detailed botanical surveys.
Grindelia hirsutula var. maritima	San Francisco gumplant	–/–/1B.2	Coastal California: Monterey, Marin, Santa Cruz, San Francisco, San Luis Obispo, and San Mateo Counties	Coastal bluff scrub, coastal scrub, sandy soils on serpentine grassland	Aug-Sep	No suitable sandy or serpentine habitat present in study area, but and no plants were found during detailed botanical surveys. Closest reported occurrence is ~30 miles west of study area.
Helianthella castanea	Diablo helianthella (Diablo rock rose)	–/–/1B.2	San Francisco Bay area: Alameda, Contra Costa, Marin*, San Francisco*, and San Mateo Counties	At chaparral/oak woodland ecotone, often in partial shade, on rocky soils, (60-1300 m) 80-3,800'	Apr-Jun	Marginally suitable habitat present in study area, but no plants found during detailed botanical surveys. No plants found during detailed botanical surveys.
Hoita strobilina	Loma Prieta hoita	–/–/1B.1	Alameda*, Contra Costa*, Santa Clara, and Santa Cruz Counties	Mesic sites in chaparral, cismontane woodland, and riparian woodland, usually in serpentinite soils, from 30 to 600 meters in elevation	May-Oct	Marginally suitable habitat present in the study area, however the site lacks serpentine soils. No plants found during detailed botanical surveys.
Horkelia cuneata ssp. sericea	Kellogg's horkelia	–/–/1B.1	Coastal California from Marin to Santa Barbara Counties	Openings in closed-cone coniferous forest, coastal scrub, maritime chaparral, on sandy or gravelly soils	Apr-Sep	No suitable sand dune habitat present in the study area. No plants found during detailed botanical surveys.
Lasthenia conjugens	Contra Costa goldfields	E/–/1B.1	Scattered occurrences in Coast Range valleys and southwest edge of Sacramento Valley, Alameda, Contra Costa, Mendocino, Monterey, Napa, Santa Barbara*, Santa Clara*, and Solano Counites.	Mesic sites in cismontane woodland, alkaline playas, valley and foothill grassland, and vernal pools from 0 to 470 meters in elevation	Mar-Jun	No vernal pools or seasonally wet vernal pool habitats present in study area.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Legenere limosa	Legenere	–/–/1B.1	Central Valley /OR/ Primarily located in the lower Sacramento Valley, also from north Coast Ranges, northern San Joaquin Valley and the Santa Cruz mountains.	Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks, below 500'	Apr-Jun	No deep, seasonally wet habitat in study area. No plants found during detailed botanical surveys.
Lessingia hololeuca	Woolly-headed lessingia	–/–/3	Southern north Coast Ranges, southern Sacramento Valley, northern San Francisco Bay region, Alameda, Monterey, Marin, Napa, Santa Clara, San Mateo, Solano, Sonoma, and Yolo Counties	Clay or serpentinite soils of coastal scrub, lower montane coniferous forest, valley and foothill grassland, below 1,000'	Jun-Oct	Suitable habitat present in the study area, but no plants found during detailed botanical surveys.
Malacothamnus arcuatus	Arcuate bush mallow	–/–/1B.2	Santa Clara, Santa Cruz, and San Mateo Counties	Chaparral, between 15-355 m	Apr-Sep	No chaparral present in study area. No plants found during detailed botanical surveys.
Malacothamnus hallii	Hall's bush mallow	–/–/1B.2	Contra Costa, Santa Clara, and Merced counties	Chaparral, between 800 1,350 feet	May-Sep	No chaparral present in study area. No plants found during detailed botanical surveys.
Meconella oregana	Oregon meconella	–/–/1B.1	Contra Costa and Santa Clara Counties, also known from Oregon, Washington and elsewhere	Coastal prairie, coastal scrub, not in Jepson Manual, 250-500 meters	March-April	There is no coastal prairie or coastal scrub habitat in the study area and no plants were found during detailed botanical surveys.
Monardella antonina ssp. antonina	San Antonio Hills monardella	–/–/3	San Francisco Bay area and Central coast	Chaparral, cismontane woodland, open rocky slopes	Jun-Aug	No suitable habitat present in the study area. No plants found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Monardella villosa ssp. *globosa*	Robust monardella	–/–/1B.2	North Coast Ranges and Eastern San Francisco Bay Area: Alameda, Contra Costa, Humboldt, Lake, Marin, Mendocino, Napa, San Mateo, and Sonoma Counties	Oak woodland and grassy openings in chaparral and coastal scrub	June-July	Suitable habitat present in study area, but no plants found during detailed botanical surveys.
Myosurus minimus ssp. *apus*	Little mousetail	–/–/3.1	Central Valley, South Coast: Alameda, Butte, Contra Costa, Colusa, Kern, Riverside, San Bernardino, San Diego, Solano, and Stanislaus Counties	Alkaline vernal pools and marshes	Mar-Jun	No alkaline vernal pools or marshes in study area. No plants found during detailed botanical surveys.
Navarretia prostrata	Prostrate navarettia	–/–/1B.1	Western San Joaquin Valley, interior South Coast Ranges, central South Coast, Peninsular Ranges: Los Angeles, Merced, Monterey, Orange, Riverside, San Bernardino, and San Diego Counties	Vernal pools and mesic areas in coastal scrub and alkali grasslands	Apr-Jul	No vernal pool or mesic coastal scrub habitat present in study area. No plants found during detailed botanical surveys.
Pentachaeta bellidiflora	White rayed pentachaeta	E/E/1B.1	One occurrence in San Mateo County, historically known also from Marin and Santa Cruz Counties	Annual grassland, often on serpentinite	Mar-May	Site supports marginally suitable habitat; however, the site lacks serpentine soils. No plants found during detailed botanical surveys. Limited range: unlikely to occur
Perideridia gairdneri ssp. *gairdneri*	Gairdner's yampah	–/–/4.2	Kern, Los Angeles*, Mendocino, Monterey, Marin, Napa, Orange*, San Benito, Santa Clara, Santa Cruz, San Diego*, San Luis Obispo, San Mateo*, Solano, and Sonoma Counties	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools, in mesic areas	Jun-Oct	Suitable habitat present in study area, but no plants found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status	California Distribution	Habitat	Blooming Period	Comments/Survey Results
		Fed/State/CNPS				
Plagiobothrys glaber	Hairless popcorn-flower	–/–/1A	Coastal valleys from Marin County to San Benito Counties	Alkaline meadows and seeps, coastal salt marshes, alkaline areas	Apr-May	No suitable alkaline or saline habitats exist in the project area. No plants found during detailed botanical surveys. Possibly EXTIRPATED.
Sidalcea malachroides	Maple-leaved checkerbloom	–/–/4.2	North Coast and northern Central Coast: from Humboldt to Monterey County	Openings in coastal scrub, perennial grassland, Redwood forest, Douglas-fir forest, often in disturbed areas, 5-2,300'	May-Aug	Habitat present considered marginal because site lacks coastally influenced areas required by the species. No plants were found during detailed botanical surveys.
Streptanthus albidus ssp. *peramoenus*	Most beautiful jewel-flower	–/–/1B.2	Eastern San Francisco Bay area, Central south coastal outer ranges. Alameda, Contra Costa, Monterey, and Santa Clara Counties	Chaparral, annual grassland, on ridges and slopes on serpentinite outcrops, 450-3,200'	Apr-Jun	Site lacks serpentine soils. No plants found during detailed botanical surveys.
Streptanthus callistus	Mt. Hamilton jewel-flower	–/–/1B.3	Endemic to Mount Hamilton in Santa Clara County	Chaparral, oak woodland, and cismontane woodland from 600 to 790 meters in elevation	May-Jul	No plants found during detailed botanical surveys. Study area is below elevation range of species.
Streptanthus hispidus	Mt. Diablo jewel-flower	–/–/1B.3	Endemic to Mount Diablo	Annual grassland, chaparral, on talus or rocky outcrops, between 2,000 3,850 feet; blooms	Mar-Jun	No plants found during detailed botanical surveys. Study area is below elevation range of species.
Suaeda californica	California seablite	E/–/1B.1	Morro Bay, San Luis Obispo County, historically found in the south San Francisco Bay	Margins of tidal salt marsh	Jul-Oct	No habitat present in study area; however the site lacks serpentine soils.
Trifolium amoenum	Showy Indian clover	E/–/1B.1	Coast Range foothills, San Francisco Bay region from Mendocino County to Santa Clara County	Low elevation grasslands, including swales, disturbed areas, and coastal bluff scrub, sometimes on serpentinite soils; from 5 to 415 meters in elevation	Apr-Jun	Site lacks serpentine soils. No plants were found during detailed botanical surveys.

Scientific Name	Common Name	Legal Status Fed/State/CNPS	California Distribution	Habitat	Blooming Period	Comments/Survey Results
Trifolium depauperatum var. *hydrophilum*	Saline clover	–/–/1B.2	Sacramento Valley, central western California	Salt marsh, mesic alkaline areas in grasslands, vernal pools	Apr-Jun	No salt marsh or alkaline habitats in study area; however, the site lacks serpentine soils.
Tropidocarpum capparideum	Caper-fruited tropidocarpum	–/–/1B.1	Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills	Grasslands in alkaline hills below 1,500'	Mar-Apr	Site lacks alkaline soils. No plants were found during detailed botanical surveys. Considered extinct.

Status explanations:

Federal

E = listed as endangered under the federal Endangered Species Act.

T = listed as threatened under the federal Endangered Species Act, which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list.

– = no listing.

State

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.

– = no listing.

California Native Plant Society

1A = List 1A species: presumed extinct in California.

1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

3 = List 3 species: plants about which more information is needed to determine their status.

* = known populations believed extirpated from that County.

[b] Definitions of levels of occurrence likelihood:

Low: Plant not known to occur in the region from the California Natural Diversity Database, or from other documents related to the project vicinity; or due to habitat conditions of poor quality.

( ) Parentheses indicate months during which flowering is possible, but rare.

Table 2. Special-Status Wildlife Species with Potential to Occur in the Vicinity of the SUNOL WTP STUDY Area

Common and Scientific Name	Status[a] Federal/State	California Distribution	Habitats	Occurrence in the Study Area
INVERTEBRATES				
Conservancy fairy shrimp *Branchinecta conservatio*	E/–	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	No vernal pool habitat present in study area
Longhorn fairy shrimp *Branchinecta longiantenna*	E/–	Eastern margin of central Coast Ranges from Contra Costa County to San Luis Obispo County; disjunct population in Madera County	Small, clear pools in sandstone rock outcrops of clear to moderately turbid clay- or grass-bottomed pools	Suitable habitat not present in study area
Vernal pool fairy shrimp *Branchinecta lynchi*	T/–	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	No vernal pool habitat present in study area
Vernal pool tadpole shrimp *Lepidurus packardi*	E/–	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds	No vernal pool habitat present in study area
Bay checkerspot butterfly *Euphydryas editha bayensis*	T/–	Vicinity of San Francisco Bay including San Francisco peninsula in San Mateo Co., and mountains near San Jose, Santa Clara County	Native grasslands on outcrops of serpentine soil; California plantain and owl's clover are host plants	Suitable habitat not present in study area –no serpentine soil in study area
Callippe silverspot *Speyeria callippe callippe*	E/–	San Bruno Mountain, San Mateo County, and a single location in Alameda County.	Open hillsides where wild pansy (*Viola pedunculata*) grows; larvae feed on Johnny jump-up plants, whereas adults feed on native mints and non-native thistles.	Suitable habitat not present –no larval host plant in study area
AMPHIBIANS AND REPTILES				
California tiger salamander *Ambystoma californiense*	T/SSC	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	High– suitable upland habitat in and adjacent to study area and known populations in the vicinity

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
Western spadefoot *Spea hammondii*	–/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	Suitable habitat not present in study area
California red-legged frog *Rana aurora draytoni*	T/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May aestivate in rodent burrows or cracks during dry periods	High– suitable aquatic and upland habitat in and adjacent to study area and known populations in the vicinity
Foothill yellow-legged frog *Rana boylii*	–/SSC	Occurs in the Klamath, Cascade, north Coast, south Coast, Transverse, and Sierra Nevada Ranges up to approximately 6,000 feet	Creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. Usually found near riffles with rocks and sunny banks nearby.	High– suitable breeding habitat in Alameda Creek within the study area, and species occurrence records in Alameda Creek
Western pond turtle *Clemmys marmorata*	–/SSC	The range of the northwestern subspecies extends from Oregon border of Del Norte and Siskiyou Counties south along coast to San Francisco Bay, inland through Sacramento Valley, and on the western slope of Sierra Nevada; the southwestern subspecies occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; the subspecies' range overlaps through the Delta and Central Valley to Tulare County	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation	High– suitable breeding habitat in and adjacent to study area and species occurrence records in project vicinity
California horned lizard *Phrynosoma coronatum frontale*	–/SSC	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging	Suitable habitat not present in study area
Alameda whipsnake *Masticophis lateralis euryxanthus*	T/T	Restricted to Alameda and Contra Costa Counties	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging	Moderate– suitable habitat in and adjacent to study area and occurrence records in project vicinity

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	E/E, FP	Northern San Mateo County southward along the coast and the eastern slope of the Santa Cruz Mountains to the Santa Cruz County line	Favors ponds, lakes, slow moving streams and marshy areas containing abundant vegetation, which it uses for cover; nearby upland habitat is important during fall and winter	Suitable habitat not present in study area
San Joaquin whipsnake *Masticophis flagellum ruddocki*	–/SSC	From Colusa county in the Sacramento Valley southward to the grapevine in the San Joaquin Valley and westward into the inner coast ranges. An isolated population occurs at Sutter Buttes. Known elevation range from 20 to 900 meters	Occurs in open, dry, vegetative associations with little or no tree cover. It occurs in valley grassland and saltbush scrub associations. Often occurs in association with mammal burrows	Suitable habitat not present in study area
BIRDS				
Golden eagle *Aquila chrysaetos*	–/SSC, FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Moderate– may nest or forage in or adjacent to the study area
Bald eagle *Haliaeetus leucocephalus*	T/–	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin. Reintroduced into central coast. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean	No suitable nesting habitat in the study area
Sharp-shinned hawk *Accipiter striatus*	–/SSC	Permanent resident in the Sierra Nevada, Cascade, Klamath, and north Coast Ranges at mid elevations and along the coast in Marin, San Francisco, San Mateo, Santa Cruz, and Monterey Counties. Winters over the rest of the state except at very high elevations	Dense canopy ponderosa pine or mixed-conifer forest and riparian habitats	Moderate– may nest in or adjacent to the study area
Cooper's hawk *Accipiter cooperii*	–/SSC	Throughout California except high altitudes in the Sierra Nevada. Winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range	Nests in a wide variety of habitat types, from riparian woodlands and digger pine-oak woodlands through mixed conifer forests	Moderate– may nest in or adjacent to study area

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
Ferruginous hawk *Buteo regalis*	–/SSC	Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, east-ward to the Sierra Nevada foothills and south-eastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County	Open terrain in plains and foothills where ground squirrels and other prey are available	Does not nest in California
White-tailed kite *Elanus leucurus*	–/FP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands	Moderate– could nest or forage in or adjacent to study area
American peregrine falcon *Falco peregrinus anatum*	–/E	Permanent resident along the north and south Coast Ranges. May summer in the Cascade and Klamath Ranges and through the Sierra Nevada to Madera County. Winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations	No suitable nesting habitat in the study area
Prairie falcon *Falco mexicanus*	–/SSC	Permanent resident in the south Coast, Transverse, Peninsular, and northern Cascade Ranges, the southeastern deserts, Inyo-White Mountains, foothills surrounding the Central Valley, and in the Sierra Nevada in Modoc, Lassen, and Plumas Counties. Winters in the Central Valley, along the coast from Santa Barbara County to San Diego County, and in Marin, Sonoma, Humboldt, Del Norte, and Inyo Counties	Nests on cliffs or escarpments, usually overlooking dry, open terrain or uplands	No suitable nesting habitat in the study area
California clapper rail *Rallus longirostris obsoletus*	E/E	Marshes around the San Francisco Bay and east through the Delta to Suisun Marsh	Restricted to salt marshes and tidal sloughs; usually associated with heavy growth of pickle-weed; feeds on mollusks removed from the mud in sloughs	Suitable habitat not present in study area
California black rail *Laterallus jamaicensis coturniculus*	–/T	Permanent resident in the San Francisco Bay and east-ward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations	Suitable habitat not present in study area

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
Western snowy plover (coastal populations) *Charadrius alexandrinus nivosus* (nesting)	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent	Suitable habitat not present in study area
California least tern *Sterna antillarum (=albifrons) browni* (nesting colony)	E/E	Nests on beaches along the San Francisco Bay and along the southern California coast from southern San Luis Obispo County south to San Diego County	Nests on sandy, upper ocean beaches, and occasionally uses mudflats; forages on adjacent surf line, estuaries, or the open ocean	Suitable habitat not present in study area
Western burrowing owl *Athene cunicularia hypugaea*	–/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	Low– grassland habitat present but limited mammal burrows on site
California horned lark *Eremophila alpestris actia*	–/SSC	Found throughout much of the state, less common in mountainous areas of the north coast and in coniferous or chaparral habitats	Common to abundant resident in a variety of open habitats, usually where large trees and shrubs are absent. Grasslands and deserts to dwarf shrub habitats above tree line	Suitable habitat not present in study area
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	–/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties	Breeds in fresh and brackish marsh associated with and close to Bay wetlands. Freshwater marshes are used in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover	Suitable habitat not present in study area
Tricolored blackbird *Agelaius tricolor*	–/SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	Suitable habitat not present in study area

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
Alameda (South Bay) song sparrow *Melospiza melodia pusillula*	–/SSC	Found only in marshes along the southern portion of the San Francisco Bay	Brackish marshes associated with pickleweed; may nest in tall vegetation or among the pickleweed	Suitable habitat not present in study area
Salt marsh vagrant (wandering) shrew *Sorex vagrans halicoetes*	–/SSC	Restricted to southern and northwestern San Francisco Bay	Mid-elevation salt marsh habitats with dense growths of pickleweed; requires driftwood and other objects for nesting cover	Suitable habitat not present in study area
MAMMALS				
Hoary bat *Lasiurus cinereus*	–/SSC	Scattered throughout much of California, although distribution is patchy in southeastern deserts.	Generally roosts in dense foliage of medium to large trees, hidden from above.	Moderate – suitable roosting habitat in study area
Pacific Townsend's (=western) big-eared bat *Corynorhinus townsendii townsendii*	–/SSC	Coastal regions from Del Norte County south to Santa Barbara County	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings. Very sensitive to disturbances and may abandon a roost after one onsite visit	Suitable roosting habitat not present in study area. Foraging habitat present along Alameda Creek
Pallid bat *Antrozous pallidus*	–/SSC	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations.	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts.	Moderate – could day roost in trees in study area
Salt marsh harvest mouse *Reithrodontomys raviventris*	E/E, FP	San Francisco, San Pablo, and Suisun Bays; the Delta	Salt marshes with a dense plant cover of pickle-weed and fat hen; adjacent to an upland site	Suitable habitat not present in study area
San Joaquin kit fox *Vulpes macrotis mutica*	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	Not considered to be present in the Sunol Valley or hills of Fremont

Common and Scientific Name	Status[a]	California Distribution	Habitats	Occurrence in the Study Area
	Federal/State			
American badger *Taxidea taxus*	–/SSC	Throughout California, except for the humid coastal forests of northwestern California in Del Norte County and the northwestern portion of Humboldt County	Requires sufficient food, friable soils, and relatively open uncultivated ground. Preferred habitat includes grasslands, savannas, and mountain meadows near timberline.	Low– no appropriately-sized burrows in study area

[a]Status explanations:

Federal
E = listed as endangered under the federal Endangered Species Act.
T = listed as threatened under the federal Endangered Species Act.
C = species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.
-- = no listing.
State
E = listed as endangered under the California Endangered Species Act.
T = listed as threatened under the California Endangered Species Act.
FP = fully protected under the California Fish and Game Code.
SSC = species of special concern in California.
-- = no listing.

The determination of the potential for each species to occur is generally based on the following criteria:
Low: The project site is within the species range and suitable habitat for the species occurs in the project vicinity, but was not identified in the project area.
Moderate: The project site is within the species range and suitable habitat for the species is present at the project site; however there are no records for the species in the project vicinity.
High: The project site is within the species range and suitable habitat for the species is present at the project site, and there are one or more records of the species in the project vicinity or the species was observed at the project site or in the project vicinity.

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Appendix F

Phase I Environmental Site Assessment Report

PHASE I ENVIRONMENTAL SITE ASSESSMENT

NOVEMBER 2007

Sunol Valley Water Treatment Plant
Improvement Project
Sunol, California

For:

Jones & Stokes Associates
Oakland, California

Y7347-00.00860

5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686

BASELINE

ENVIRONMENTAL CONSULTING

November 30, 2007
Y7347-00.00860

Ms. Jill Sunahara
Water Resources Specialist
Jones & Stokes Associates
268 Grand Avenue
Oakland, CA 94610

Subject: Phase I Environmental Site Assessment, Sunol Valley Water Treatment Plant Improvement Project, Sunol, California

Dear Ms. Sunahara:

Please find enclosed our report documenting activities and findings of a Phase I Environmental Site Assessment prepared for the Sunol Valley Water Treatment Plant Improvement Project in Sunol, California. If you have any questions or comments, please contact us at your convenience.

Sincerely,

Yane Nordhav
Principal
Prof. Geologist No. 4009

Patrick Sutton
Environmental Scientist

YN:PS:km

Enclosure

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

NOVEMBER 2007

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BASELINE Environmental Consulting
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PHASE I ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION

This report describes the activities and presents the findings and recommendations of a Phase I Environmental Site Assessment (ESA) for the Sunol Valley Water Treatment Plant (SVWTP) Improvement Project (Project) proposed by the San Francisco Public Utilities Commission (SFPUC) in Alameda County, California (Figure 1). The SVWTP is equipped to treat water from the Hetch Hetchy, Calaveras, and San Antonio Reservoirs before distribution to users in the Bay Area. The Project consists of expanding the capacity of the existing SVWTP, and constructing an access road to haul soil excavated during Project construction from the SVWTP approximately 1.7 miles north to a spoils reuse site (Figures 1 and 2). BASELINE Environmental Consulting (BASELINE) performed this ESA at the request of the SFPUC's consultant, Jones & Stokes Associates, in support of California Environmental Quality Act (CEQA) environmental review of the Project.

This Phase I assessment evaluates whether recognized environmental conditions (RECs) are present on the Project site and/or adjoining properties based on historical and current land uses. The scope of work for this Phase I assessment included the following: a review of historical land use information, including aerial photographs and topographic maps; a site reconnaissance; a review of Federal, State, and local regulatory agency lists and databases; interviews with a key site manager and adjoining property manager, and the development of recommendations for further actions. The Phase I activities were performed in accordance with the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, established by the American Society for Testing and Materials (ASTM) in Method E1527-05.

SITE DESCRIPTION

The Project is located entirely on SFPUC-managed land in the Sunol Valley of Alameda County and is within the Alameda Creek watershed. The major improvements of the Project will occur at the SVWTP (Figure 3), an area of undeveloped land directly north of the plant (Figure 3), and land occupied by a tree nursery northeast of the plant (Figure 2). The SVWTP is located at 8653 Calaveras Road, approximately three miles south of the intersection of Calaveras Road and Interstate-680 in Sunol. Spoils from the proposed excavation activities would be transported on a proposed haul road to be located parallel to and east of Calaveras road and stockpiled at the

proposed spoil reuse site, about 1.7 miles north of the SVWTP, located between the San Antonio Pump Station, a gravel quarry pit, and Calaveras Road (Figure 2). The SFPUC currently leases the haul road and spoils reuse site to the Valley Crest Tree Company (Valley Crest Tree), who operates a potted tree nursery located north and northeast of the SVWTP.

The area surrounding the Project is generally undeveloped and is characterized by rolling terrain of grasses, scrubs, and trees. The SVWTP is located on a terrace along the west side of Sunol Valley. The SVWTP terrace gradually slopes toward the east and the elevation ranges between approximately 400 and 480 feet above mean sea level (msl). The topography steeply drops away from the SVWTP terrace toward the east and then levels into the valley floor. The spoils reuse area is located along the base of the Sunol Valley on relatively flat terrain at about 280 feet above msl (Figure 4).

According to a 2004 *Phase II Soil and Groundwater Investigation* (Phase II) report prepared for the SVWTP by Aeolus-Northgate JV of Oakland, California, soils encountered in an area of the terrace immediately north of the SVWTP consisted of silty clay, clayey silt, and clayey gravel. Bedrock consisted of hard siltstone, sandstone, or fractured shale and was encountered at depths ranging from 20 to 74 feet below ground surface (bgs) on the terrace. Soils near the spoils reuse site were reported to consist of alluvial deposits of sand, gravel, silt, and clay over bedrock, with a thickness ranging from 30 to 500 feet below ground surface (bgs) (SFPUC, 2005).

The nearest surface water body to the Project is Alameda Creek, which meanders through a portion of the Project and flows toward the north. The San Antonio and Calaveras Reservoirs are located approximately 2.2 miles to the northeast and 3.5 miles to the south of the SVWTP, respectively (Figure 1). According to the 2004 Phase II report, groundwater was encountered at depths ranging from 50 to 75 feet bgs in the terrace north of the SVWTP (Aeolus-Northgate JV, 2004). However, groundwater is reported to be present at depths ranging from 1.5 to 18 feet bgs in the valley floor of Sunol Valley (SFPUC, 2005). Shallow groundwater would be presumed to follow surface topography and flow north and toward Alameda Creek.

PROJECT DESCRIPTION

The SVWTP was originally constructed in 1965 and treats water from the San Antonio Reservoir, the Calaveras Reservoir, and the Hetch Hetchy system. The plant was expanded in 1974 to increase the total sustainable capacity to 120 million gallons per day (mgpd). The SFPUC proposes to increase the total sustainable treatment capacity of the SVWTP to 160 mgpd and construct a treated water reservoir facility. The improvements are proposed in response to the Delivery Reliability Level of Service (LOS) and Water Quality LOS goals required by the California Department of Health Services (DHS) and have been requested in a DHS compliance order (No. 02-04-96C-001) issued to the SVWTP. The major components of the Project include the following: construction of filter basins, a water recovery basin, a treated water reservoir, a chlorine contact tank, and a 78-inch transport pipeline, and also the development of a spoils haul road and reuse site. Two staging areas for the proposed construction activities would be located within a portion of the Valley Crest Tree nursery north of the existing SVWTP access road and bridge, near Calaveras Road. Proposed improvements are shown on Figures 2 and 3.

Filter Basins

Three new filter basins and associated equipment and pipelines would be installed adjacent to the SVWTP to expand the total sustainable treatment capacity of the SVWTP. Pending further evaluation, the new filter basins would be located on either the west or east side of the SVWTP (Figure 3). The proposed area on the west side of the SVWTP is currently a wooded area with a steep slope and is adjacent to the access road around the SVWTP. The proposed area on the east side of the SVWTP is currently a partially wooded area on a moderate slope and is also adjacent to the access road around the SVWTP. The filter basins would be approximately 150 feet long and 88 feet wide. The existing hillside slopes would need to be excavated to accommodate the filter basins at either location. The excavation at either location would be to a depth of approximately 30 feet bgs. An access tunnel would be constructed under the roadway to connect the filter basins to the existing building.

Washwater Recovery Basin

A washwater recovery basin (No. 4) and associated equipment and pipelines would be installed adjacent to three existing washwater recovery basins on the south side of the SVWTP (Figure 3). A relatively flat and grass-covered terrain currently occupies the proposed area. The washwater recovery basin would be approximately 80 feet long and 60 feet wide. Excavation for construction would be to a depth of approximately 20 feet bgs.

Chlorine Contact Tank

A new three million-gallon (MG) chlorine contact tank and associated equipment and pipelines would be installed in an area north of the SVWTP (Figure 3). The proposed area is currently occupied by a hillside covered in grass and non-native shrubs. The hillside has previously been used as a staging area during previous construction projects at the SVWTP (Aeolus-Northgate JV, 2004). The chlorine contact tank would be approximately 190 feet long, 135 feet wide, and 30 feet high. The deepest portions of the excavation for the chlorine water tank may extend to approximately 40 feet bgs. A chemical feed facility including two 10,000-gallon ammonia aboveground storage tanks (ASTs), two 13,000-gallon sodium hypochlorite ASTs, and two 5,000-gallon hydrofluosilicic ASTs would also be installed adjacent to the south side of the chlorine contact tank. The ASTs would be installed on a concrete pad with secondary containment. The maximum depth of excavation for piping associated with the proposed chlorine contact tank and chemical feed facility would be 20 feet bgs.

Treated Water Reservoir

A 17.5 MG treated water reservoir and associated pipelines would also be installed in an area north of the SVWTP (Figure 3). The proposed area is immediately north of the proposed chlorine contact tank and is currently occupied by a hillside covered in grass and non-native shrubs. The treated water reservoir would be 340 feet diameter and approximately 35 feet high. The depth of excavation would range from 80 feet bgs on the west side and 15 feet bgs on the east side of the reservoir. The maximum depth of excavation for piping associated with the proposed treated

reservoir would be 20 feet bgs. Dewatering activities may need to be employed if groundwater is encountered during excavation.

78-Inch Pipeline

A new 78-inch diameter pipeline would be installed to connect the treated water reservoir to the existing 78-inch diameter Calaveras Pipeline (Figure 3). The new 78-inch pipeline would increase the capacity for peak flow rates and also provide partial backup capability for maintenance and/or emergency outages of the existing SVWTP discharge pipeline. The new pipeline would extend approximately 2,730 feet and be installed using an open-cut trench method and trenchless installation techniques. The trenchless installation techniques would be used for the section under Alameda Creek, which may include a bore and jack method or a micro-tunneling method. The depth of the trenches would range between 15 and 20 feet bgs. Dewatering activities may need to be employed in the valley floor of Sunol Valley.

The pipeline would first extend north of the proposed treated water reservoir down a steep slope to the southeast corner of the former sludge disposal area. The topography is relatively flat, as the pipeline would extend along the western perimeter of the former sludge disposal area for the SVWTP, which is currently wooded. The pipeline would then turn northeast, crossing through another wooded area, under Alameda Creek, a portion of the Valley Crest Tree nursery, and connect to the Calaveras Pipeline (Figure 3).

Haul Road and Spoils Reuse Site

A total of approximately 360,000 cubic yards of spoils would be excavated during the Project construction and require disposal. A proposed 35-acre spoils reuse site for disposal of the excavated spoils would be located north of the San Antonio Pump Station and in between the quarry pit and Calaveras road (Figure 2). A temporary 1.7 mile long, 2-lane, 24-foot wide gravel haul road would be constructed to connect the spoils reuse site and the SVWTP. The haul road would be constructed across the existing Valley Crest Tree nursery and portions of grass-covered terrain parallel to Calaveras Road. The Valley Crest Tree nursery currently occupies the majority of the proposed spoils reuse site. Excavation activities would not be required for construction of the haul road or spoils reuse site (Figure 2).

HISTORICAL LAND USES

Historical land uses at and adjacent to the Project were determined by reviewing historical topographic maps from 1906 through 1996 (EDR, 2007a) and historical aerial photographs from 1940 through 1998 (EDR, 2007b). Sanborn Fire Insurance Maps, which generally include more detailed information regarding historical land uses, were not available for the project vicinity (EDR, 2007c). City Directory listings of properties in proximity to the Project were reviewed from 1971 to 2006 (EDR, 2007d). Historical land use resources reviewed for this Phase I are included in Appendix A.

Project Land Use History

In 1906, the date of the first available topographic map, the Project area appeared largely undeveloped. An unnamed road was shown along Alameda Creek corresponding to the current Calaveras Road (EDR, 2007a). By 1940, land use near the Project area appeared to be a mix of undeveloped land and agricultural (EDR, 2007b).

Filter Basins

Since the first available aerial photograph of the Project area in 1940, the filter basin alternative proposed for the west side of the SVWTP has been covered with trees. The alternative area proposed for filter basins on the east side of the SVWTP was covered in grass from as early as 1940 to as late as 1965. In 1965, construction of the SVWTP was in progress and the eastern alternative for the filter basins area was graded, and by 1982, a line of trees had been planted (EDR, 2007b).

Washwater Recovery Basin

The area for the proposed washwater recovery basin (No. 4) was covered in grass in the 1940 aerial photograph. The area was developed in 1965 for the SVWTP and three washwater recovery basins were constructed (EDR, 2007b).

Chlorine Contact Tank and Treated Water Reservoir

The proposed area for the chlorine contact tank and treated water reservoir was a grass covered hillside in the 1940 aerial photograph. Access dirt roads and staging areas were constructed on portions of the hillside and area surrounding the proposed chlorine contact tank and treated water reservoir during the 1965 construction of the SVWTP. The hillside has not been improved since the 1965 construction activities (EDR, 2007b).

Treated Water Reservoir

The proposed area for the treated water reservoir was a grass covered hillside as early as 1940. Portions of the hillside adjacent to the proposed treated water reservoir were developed into dirt access roads and potential staging areas during the 1965 construction of the SVWTP. The hillside has not been improved since the 1965 construction activities (EDR, 2007b).

78-Inch Pipeline

Aerial photographs from 1940 to 1958 show grass-covered terrain in the former sludge disposal area where the proposed 78-inch pipeline will traverse. In 1940, the land located in the Valley Crest Tree nursery east of Alameda Creek, where the proposed pipeline would traverse was used for agriculture (EDR, 2007b). The 1953 topographic map depicted two structures near the southeast corner of the former sludge disposal area (EDR, 2007a). Because agricultural lands were located to the east of the structures across Alameda Creek, the two structures may have been storage buildings and/or residences. The two structures were also visible in the 1958 aerial photograph (EDR, 2007b) and again in a 1960 topographic map (EDR, 2007b), but by 1965 the two structures had been demolished prior to the construction of the SVWTP. From 1965 to 1998,

aerial photographs show an access road around the former sludge disposal area. The Valley Crest Tree Company, located east of Alameda Creek where the pipeline would traverse, was first listed in the City Directories in 1986 and the operation could be seen in a 1993 aerial photograph (EDR, 2007b).

Haul Road

The 1940 aerial photograph shows agricultural fields along the west side of Calaveras Road corresponding to portions of the proposed haul road (EDR, 2007b). The Hetch Hetchy Aqueduct was depicted in a 1953 topographic map of the Project area crossing under the northern portion of the proposed haul road (EDR, 2007a). Aerial photographs and topographic maps from 1953 through 1978 did not show significant changes in land use near the proposed haul road (EDR, 2007a and 2007b). By 1982, the San Antonio Pump Station and Sunol Valley Chloramination Facility had been constructed east of the northern-most portion of the proposed haul road (EDR, 2007b and Figure 2).

Spoils Reuse Site

According to aerial photographs and topographic maps from 1940 through 1982, the proposed spoils reuse site was has remained undeveloped (EDR, 2007a and 2007b). Gravel mining operations had expanded to the area immediately west of the proposed spoils reuse site by 1968 (EDR, 2007a). By 1982, the San Antonio Pump Station and Sunol Valley Chloramination Facility had been constructed immediately south of the proposed spoils reuse site (EDR, 2007b).

Land Uses Associated With Hazardous Materials

Two categories of land uses with possible associations with hazardous materials were identified within and adjacent to the Project: agricultural land uses and water supply treatment facilities. If present, hazardous materials from these land uses could potentially pose a health risk to construction workers and/or require special soil management and disposal procedures. The hazardous materials associated with each type of land use are described, below.

Agricultural Land Uses

Agricultural uses of land within portions of the Project may have occurred since at least 1940 and continues with the Valley Crest Tree nursery operations. Most agricultural chemicals in use today quickly degrade into less toxic compounds. Some classes of agricultural chemicals commonly used in the past, however, such as organochlorine pesticides and inorganic compounds, can leave residues in shallow soils that persist for many decades. If these classes of agricultural chemicals were used at the Project during historical cultivation, residues could potentially be present in shallow soils.

Water Supply Facilities

The SVWTP has used a variety of chemicals to disinfect, dechlorinate, and fluorinate water supplies. In addition, fuels and maintenance chemicals for equipment have been used at these facilities. Although current hazardous materials storage and use is regulated by a several

hazardous materials programs, these programs did not exist until the 1970s and 1980s. Prior to this time, unreported releases of hazardous materials could have occurred, and if present, may have the potential to affect the proposed project activities.

PROJECT INTERVIEWS

On 24 October 2007, BASELINE interviewed Mark Demeduk, the acting Chief Stationary Engineer of the SVWTP. Mr. Demeduk was identified as a key site manager of the SVWTP operations and was also present during the site reconnaissance to provide information regarding the location and use of known hazardous material at the SVWTP (see discussion in the Current Land Use and Site Reconnaissance section, below). Mr. Demeduk was not aware of any known hazardous material releases or underground storage tanks at the Project site. He did observe a gasoline release from a break in the Bay Area Product Pipeline located north of the SVWTP along Calaveras road in August 2005 (see discussion in Regulatory Agency Information section, below).

The SVWTP is heated by a diesel boiler. Floor drains are located throughout the SVWTP building and drainage inlets are located in the loading dock areas and access roads around the SVWTP. All floor drains and drainage inlets discharge to one of the eight unlined lagoons located south and downhill of the SVWTP (Figure 3). Mr. Demeduk was aware of sludge from the plant being stockpiled in a sludge disposal area north of the plant during the early years of the plant's operations (Figure 3). Sumps are located in multiple locations in and around the SVWTP. Water collected in the sumps are pumped into either the building's floor drains or drainage inlets and discharged into one of the lagoons. Mr. Demeduk was not aware of any hazardous releases into the sumps or drain systems (Demeduk, 2007).

A transformer is located on the northwest side of the SVWTP. Mr. Demeduk did not know the age of the transformer or if it contained oil with polychlorinated biphenyls (PCBs). A septic system for the SVWTP is located on the south side of the plant. Mr. Demeduk reported that water supply wells, dry wells, pits, or ponds are not present at the SVWTP. Mr. Demeduk was not aware of any plant operations that would indicate a potential REC (Demeduk, 2007).

On 6 November 2007, BASELINE interviewed John Serviss, Branch Manager of the Valley Tree Crest nursery. According to Mr. Serviss, multiple fungicides, herbicides and insecticides registered with Alameda County are selectively applied to the trees at the nursery. The pesticides are stored in a locked containment on the central nursery property, located immediately northwest of the SVWTP. Mr. Serviss did not know if secondary containment was present in the chemical storage area (Serviss, 2007).

Two gasoline ASTs and one diesel AST are also located on the central nursery property and all the ASTs have concrete secondary containment. Abandoned irrigation pipelines are present in the subsurface of the nurseries. Mr. Serviss was not aware of USTs ever being located on the nursery properties. Mr. Serviss reported that water supply wells, dry wells, pits, ponds, or lagoons are not present at the nursery properties and was not aware of any other nursery operations that would indicate a potential REC (Serviss, 2007).

An ASTM User Questionnaire was filled out by a SFPUC staff representative and is included in Appendix B.

CURRENT LAND USE AND SITE RECONNAISSANCE

Current land uses were determined by a site reconnaissance performed by BASELINE on 24 October 2007. Observations were supplemented by information from SFPUC staff, Mr. Demeduk (see previous section), and hazardous materials business plans for the SVWTP. The site reconnaissance was conducted to identify evidence of past or current use, storage, disposal, or releases of hazardous materials at the Project or on adjoining properties that may represent a REC. Evidence of hazardous material releases could include apparent odors, stained or discolored surfaces, and/or stressed vegetation. Photographs from the site reconnaissance are included in Appendix C.

Hazardous chemicals currently used in the plant treatment process include hydraulic oil, diesel fuel, carbon dioxide, sodium hydroxide, sodium hypochlorite, cationic polymer, and aluminum sulfate. Potassium permanganate was formerly used during the treatment process. Solids removed during the treatment process are discharged to a series of eight lagoons located in the valley floor south of the SVWTP. Floor drains and drainage inlets located along the access road around the SVWTP also drain into one of the lagoons (Demeduk, 2007). Potential release of hazardous materials into the lagoons would not likely adversely affect subsurface conditions at the Project based upon the downgradient location of the lagoons relative to the Project.

Filter Basins

The following hazardous materials were observed stored in ASTs located within approximately 200 feet of the proposed filter basins:

- Waste Oil (One AST, 240 gallons)
- Diesel Fuel (Two ASTs, containing 1,000 and 3,000 gallons)
- Sodium Hydroxide (Two ASTs, containing 25,000 gallons each)
- Sodium Hypochlorite (Three ASTs, containing 12,000 gallons each)
- Aluminum Sulfate (Five ASTs, containing 10,000 gallons each)
- Cationic Polymer (One AST, containing 4,200 gallons)
- Liquid Carbon Dioxide (One AST, containing 60,000 pounds)
- Potassium Permanganate (One AST, approximately 300 gallons)

Filter Basins East of the SVWTP

The proposed filter basins area on the east side of the SVWTP is located along a moderate slope lined with trees. The liquid carbon dioxide AST was the only hazardous material observed in proximity to the location. The liquid carbon dioxide AST was contained by a concrete berm. Apparent staining or stressed vegetation was not observed around the liquid carbon dioxide AST. A septic system is located near the east side of the proposed filter basins (Demeduk, 2007).

Filter Basins West of the SVWTP

The proposed filter basins area on the west side of the SVWTP is located on a steeply wooded slope. An area had been cleared immediately south of the proposed filter basins and contained piles of miscellaneous metal debris.

A hazardous waste storage area, consisting of a concrete berm, metal canopy, and a sump, was located immediately northeast of the proposed filter basins. Two 55-gallon steel containers of latex paint, four car batteries, and an approximate ten-gallon container of waste oil were stored in the hazardous waste storage area with secondary containment. Adjacent to the hazardous waste storage area was a chemical storage shed that was locked and reportedly contained latex paints. Nine 55-gallon steel containers of waste oil were observed stored on pallets adjacent to the chemical storage shed without secondary containment (Photo 1 in Figure C1). Staining was not observed on the ground in the vicinity of the hazardous waste storage area.

The diesel and waste oil ASTs were also located northeast of the proposed filter basins area near the hazardous waste storage. Minor staining was observed on the concrete pad around the base of the waste oil AST, but not around the diesel ASTs (Photo 2 in Figure C1 and Photo 3 in Figure C2). The diesel ASTs provide fuel for the boiler system and a 350-kilowatt generator and a 600-kilowatt generator located near the diesel ASTs (Demeduk, 2007). Staining was not observed on the ground surfaces surrounding the generators.

An AST containing potassium permanganate was being temporarily stored in loading dock area northeast of the proposed filter basins and was scheduled for off-site disposal (Demeduk, 2007). Secondary containment was not present around the permanganate AST. Staining was not observed on the ground surfaces surrounding the permanganate AST.

The sodium hydroxide, sodium hypochlorite, aluminum sulfate, and cationic polymer ASTs were stored immediately southeast of the proposed filter basins. A concrete vault contained the ASTs. The access roadway to the ASTs drained into drainage inlets (Photo 4 in Figure C2), which drain into a lagoon south of the SVWTP (Demeduk, 2007). Staining was not observed on the ground surrounding the tanks or along the access road.

Washwater Recovery Basin

The proposed washwater recovery basin area is located (adjacent to the existing washwater recovery basins) on relatively flat ground covered in grass (Photo 5 in Figure C3). Storage or use of hazardous materials was not observed near the proposed washwater recovery basin area. Stressed, stained or damaged vegetation was not observed in the area.

Chlorine Contact Tank and Treated Water Reservoir

The proposed chlorine contact tank and treated water reservoir area are located north of the SVWTP (Photo 6 in Figure C3). The area is a grass hillside that gradually slopes down toward the east and was formerly used as a staging area for construction activities at the SVWTP. Small quantities of roofing tar were observed stored in this area. Anthracite filter media was stored and subsequently mixed into the soil in the southeast portion of the field (Aeolus-Northgate JV, 2004). Anthracite is an inert material and does not present an environmental concern

Overhead electrical wires cross the field from east to west and connect to an existing 324,000-gallon treated water reservoir, located uphill of the proposed 17.5 MG treated water reservoir. A transformer was observed on top of an electric utility pole located in the southeast corner of the field. The age of the transformer was not known and may have once contained oil with PCBs (Demeduk, 2007). Staining or stressed vegetation was not observed in the vicinity of the utility pole.

Aeolus-Northgate JV advanced four borings (B-2, B-3, B-5, and B-6) in the proposed chlorine contact tank and treated water reservoir area and soil samples were collected at depths ranging from 4 to 69.5 feet bgs during a 2004 Phase II investigation (Aeolus-Northgate JV, 2004). Three borings were also advanced in the hillside area crossgradient and to the north of the proposed treated water reservoir (B-1, B-4, and B-8) and soils samples were collected at depths ranging from 4 to 28.5 feet bgs.

Soil samples were selectively analyzed for total recoverable petroleum hydrocarbons (TRPH), total petroleum hydrocarbons as gasoline range organics (TPH-GRO), total petroleum hydrocarbons as diesel range organics (TPH-DRO), total petroleum hydrocarbons as oil (TPH-Oil), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), reactivity, corrosivity, ignitability (collectively RCI), and asbestos. All of the soil samples were analyzed for metals.

Individual soil sample were collected and analyzed discretely within 4 and 9 feet bgs from borings B-2, B-3, B-5, and B-6. Six soils samples were collected from borings B-2, B-3, B-5, and B-6 at depths ranging from 9 to 69.5 feet bgs and composited across multiple borings and sample depths.

Concentrations of TRPH were reported above the laboratory reporting limit (LRL) in three of the soil samples collected from borings B-5 and B-6. TRPH was detected at a concentration of 370 milligrams per kilogram (mg/kg) in the discrete soil sample collected from borings B-5 at 9.5 feet bgs (B5-9.5). TRPH was detected at a concentration of 200 mg/kg in the composite soil sample collected from borings B-5 and B-6 at 34.5 feet bgs and 9 feet bgs, respectively (B5-34.5, B6-9). TRPH was detected at a concentration of 480 mg/kg in the composited soil sample collected from borings B-5, B-6 and B-8 at depths of 49 feet bgs, 29 feet bgs, and 28.5 feet bgs, respectively (B5-49, B6-29, B8-28.5). Concentrations of TRPH were not detected above the LRLs in soil samples collected from borings B-2 and B-3.

Concentrations of TPH-GRO, TPH-DRO, TPH-Oil, VOCs, and SVOCs were not detected above LRLs in any of the soils samples collected from borings B-2, B-3, B-5, and B-6 in the Project construction area or from borings B-1, B-4, and B-8 located nearby. The reported concentrations of TRPH may represent naturally occurring organic material, based on the absence of other petroleum constituents in the soils samples collected. Asbestos was not detected and RCI were not found to be reactive, corrosive, or ignitable in any of the soil samples.

Metal concentrations in all of the soil samples collected in the chlorine contact tank and treated water reservoir area during the Phase II investigation were generally within a narrow range. With the exception of vanadium and cadmium, metal concentrations were below Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for residential land use when groundwater is a potential source of drinking water (RWQCB, 2007a). Concentrations of vanadium ranged from 36 mg/kg to 62 mg/kg in the ten soil samples collected from borings B-2, B-3, B-5, and B-6, which exceed the RWQCB ESLs of vanadium (15 mg/kg) in shallow soils for residential land use where groundwater is a potential source of drinking water (RWQCB, 2007a); however, the vanadium concentrations do not exceed the commercial/industrial ESL (190 mg/kg) or direct-exposure ESL of 500 mg/kg established for construction/trench workers (RWQCB, 2007b). Concentrations of cadmium ranged from 4.5 to 7.4 mg/kg in the ten soil samples collected from borings B-2, B-3, B-5, and B-6, which exceed the RWQCB ESL of cadmium (1.7 mg/kg) in shallow soils for residential and equal to the commercial/industrial ESL (7.4 mg/kg) land use where groundwater is a potential source of drinking water (RWQCB, 2007a); however, the vanadium concentrations do not exceed the direct-exposure ESL of 500 mg/kg established for construction/trench workers (RWQCB, 2007b).

Groundwater samples were collected from borings B-2 and B-3 at approximately 50 feet bgs and analyzed for TPH-GRO, TPH-DRO, benzene, toluene, ethylbenzene, total xylenes, and methyl tert-butyl ether; None of the constituents were detected above LRLs. A groundwater sample was also collected from boring B-8 and analyzed for dissolved metals. Dissolved metals were not detected above LRLs with the exception of barium and molybdenum, which were reported at concentrations of 0.059 milligrams per liter (mg/L) and 0.013 mg/L (Aeolus-Northgate JV, 2004), respectively, and below the groundwater ESLs for potential drinking water source (RWQCB, 2007a).

Proposed construction activities in this area would include grading and excavation to approximately 80 feet bgs. RECs were not identified at or in proximity to the proposed chlorine contact tank and treated water reservoir areas indicative of a potential release of hazardous materials.

78-Inch Pipeline Alignment

Prior to 1994, an area north of the SVWTP was used for disposal of sludge generated at the SVWTP (Figure 3). In 1993, the DPW analyzed the sludge generated at the SWTP and detected low concentrations of PCBs. Samples were then collected in the sludge disposal area and the presence of low concentrations of PCBS were confirmed; however, the PCB concentrations reportedly did not represent a significant risk to human health (Aeolus-Northgate JV, 2003).

Aeolus-Northgate advanced a soil boring (B-9A) at the base of a slope adjacent to the southeast corner of the former sludge disposal area to collect a composite soil sample from 1 and 5 feet bgs and another composite sample from 10 and 15.5 feet bgs during the 2004 Phase II investigation. The soil samples were analyzed for metals and PCBs. Copper was reported at a concentration of 1,100 mg/kg in the soil sample composited from one foot and five feet bgs (B9A-1, B9A-5), which exceeds the RWQCB ESL of 230 mg/kg in shallow soils for residential and commercial/industrial land use where groundwater is a potential source of drinking water (RWQCB, 2007a); however, the copper concentration does not exceed the direct-exposure ESL of 28,000 mg/kg established for construction/trench workers (RWQCB, 2007b). While the total cooper concentrations is below the Total Threshold Limit Concentration (TTLC) criteria for a California hazardous waste, the soluble concentration determined using the Waste Extraction Test (WET) may exceed the Soluble Threshold Limit Concentrations (STLC) criteria for a California hazardous waste. The relative location of boring B-9A to the excavation for the 78-inch pipeline alignment is unclear. It is possible that at least apportion of the excavation spoils may be classified as a California hazardous waste for disposal purposes. PCBs were not detected above the LRLs in the soil samples collected from boring B-9A (Aeolus-Northgate JV, 2004).

The extent and significance of potential soil and groundwater impacts have not been defined in former sludge disposal area, which constitutes a REC. Potential soil contamination could affect construction workers and management of impacted soil for the proposed 78-inch pipeline.

Evidence of hazardous material use, storage or releases was not apparent in the Valley Crest Tree nursery east of Alameda Creek. A previous Phase I investigation by BASELINE in May 2006 (BASELINE, 2006) indicated that the Valley Crest Tree nursery uses the fungicide Daconil on their trees. The active ingredient in Daconil is chlorothalonil, which is a carcinogen identified under California's proposition 65. Chlororthalonil is also a known eye and respiratory irritant and a skin sensitizer. Daconil has low mobility in soils, but may be present in shallow soils where excavation activities have been proposed. According to an interview with Mr. Serviss on 6 November 2007, other pesticides are also selectively used on the nursery trees (see Project Interviews and User Questionnaire section, above). The use of pesticides in the nursery and the area of proposed excavation for the 78-inch pipeline is a REC that could affect construction activities.

Haul Road and Spoils Reuse Site

The proposed spoils haul road from the SVWTP to the proposed reuse site is occupied by portions of the Valley Crest Tree nursery (Photo 7 in Figure C4). The terrain is relatively flat and evidence of hazardous material use, storage or releases was not apparent; however, as previously noted, pesticides may be present in shallow soils of the Valley Crest Tree nursery where portions of the haul road and spoils reuse site are proposed. The potential accumulation of pesticides in the soils is a REC.

The San Antonio Pump Station and Sunol Valley Chloramination Facility are located south of the proposed spoils reuse area and slightly upgradient (Figure 2). During site reconnaissance activities on 24 October 2007, BASELINE observed the following chemicals stored in ASTs: diesel fuel, sodium bisulfate, sodium hypochlorite, sodium hydroxide, aqua ammonia, and

hydrofluosilicic acid. Secondary containment was present around all of the ASTs and evidence of a potential release was not apparent.

Summary of Land Use and Site Reconnaissance

Evidence of odors, standing pools of liquid, pits, ponds, or stressed vegetation that would indicate a potential REC was not observed during the site reconnaissance activities. Minor staining was observed around the base of the waste oil AST located on the northwest side of the SVWTP. Based on the limited extent of staining, the waste oil AST was not identified as a REC. RECs were not observed at or in proximity to the proposed filter basins, washwater recovery basin, chlorine contact tank, and treated water reservoir.

Sludge from the SVWTP was formerly disposed in an area north of the SVWTP where low concentrations of PCBs were previously reported during a DPW investigation (Aeolus-Northgate JV, 2003). The elevated copper concentration in the composite sample collected from one foot and five feet bgs from boring B-9A installed in 2004 indicates that shallow soils in the former sludge disposal area may be a REC. The unknown extent and significance of potential soil contamination is a REC, indicating that subsurface conditions could affect construction workers and management of excavated soils for the 78-inch pipeline.

The use of pesticides on the Valley Crest Tree nursery properties may have resulted in the accumulation of pesticides in the shallow soil (BASELINE, 2006 and Serviss, 2007). The use of pesticides is a REC that could affect construction workers and management of soils excavated for the proposed 78-inch pipeline, haul road and spoils reuse site. Even though the haul road and spoils site would not require excavation, site preparation activities such as grading may generate dust containing pesticides. Other RECs were not observed at or in proximity to the proposed 78-inch pipeline, haul road, and spoils reuse site.

REGULATORY AGENCY INFORMATION

BASELINE contracted with Environmental Data Review, Inc. (EDR), an environmental information service, to search Federal, State, and local regulatory agency databases and historical land use databases pertaining to hazardous material use and releases on properties within one mile of the Project (EDR, 2007e). The environmental database report is included as Appendix D on a compact disc. Additional regulatory information was reviewed and summarized from previous environmental investigations. Seven sites associated with hazardous materials were identified in the database search within a one-mile radius of the Project (Figure 5 and Table 1).

Sites Within Construction Areas

Four of the seven sites were identified within the Project construction:

Site 1 - Sunol Valley Water Treatment Plant, 8653 Calaveras Road

This site is listed in the State's AST, Historical UST (HIST UST), Hazardous Waste Information System (HAZNET), Waste Discharge Requirements System (WDS), and Statewide

Environmental Evaluation and Planning System (SWEEPS) databases for hazardous material use, storage, and disposal. Hazardous waste manifests associated with the site include inorganic waste, organic waste, solvent mixtures, latex waste, waste oil, alkaline solutions, PCBs, sludge waste, and asbestos-containing waste. One 4,000-gallon diesel UST, one 500-gallon waste oil UST, and one 4,000 gallon AST (contents unspecified) were registered at the site (EDR, 2007e). The current ASTs at the SVWTP was discussed in the Current Land Use and Site Reconnaissance section, above. In 1991, Alameda County Health Services Agency representatives inspected the removal of a UST adjacent to the northwest corner of the SVWTP. The UST was reported to be in excellent condition and soil impacts were not apparent (Aelous-Northgate, 2003).

According to the Federal and state databases for hazardous materials incidents (ERNS and CHMIRS, respectively), and the State's list of hazardous material release sites (Cortese), potassium permanganate was released from a storage tank and the runoff entered Alameda Creek in 1992. In 1993, residual aluminum sulphate in a storage tank mixed with rain water and was released. Information about the remedial status of the releases was not included in the EDR report and was not listed in the RWQCB GeoTracker database. Potassium permanganate is a chemical oxidant that would not persist in the environment and, therefore, does not pose a REC. Aluminum sulfate is used as a coagulant to removed impurities during the water treatment process and would not be expected to constitute a REC.

Site 2 – Rosalyn C. Hays, 6501 Calaveras Road

According to the HIST UST and SWEEPS databases, a 300-gallon gasoline UST was formerly registered at this site. The status of the UST was not listed in the EDR report or the RWQCB GeoTracker database. The location of this site shown on Figure 5 was based on the reported address, but could not be identified during the site reconnaissance activities and evidence of a former UST was not observed at the Project. According to an interview with Mr. Serviss (Serviss, 2007), USTs have not been used on the nursery properties. Based on the location of the San Antonia Pump Station at 5555 Calaveras Road and the Sunol Quarry at 6527 Calaveras Road, the UST was likely registered in the vicinity of these two properties. The proposed haul road and spoils reuse site are also located in this area; however, a hazardous material release from the UST would not likely affect construction of the proposed haul road and spoils reuse site since soils would not be excavated.

Site 3 - Chevron Sunol Pipeline, 2793 Calaveras Road

This site was listed on the County Contaminated Sites (CS) database due to a hazardous materials release. Although details were not available in the environmental database report, the site was listed as an active remedial site in the RWQCB GeoTracker database. According to the GeoTracker database, the Chevron Pipe Line Company owns the Bay Area Product Pipeline, which transports unleaded gasoline fuel and extends along the east side of Calaveras Road. The fuel pipeline was damaged in August 2005 and approximately 29,400 gallons of fuel was released to the surface between the pipeline and Calaveras road. Approximately 152 tons of impacted soil was excavated during emergency remedial activities. A soil vapor extraction system was installed and operated from November 2005 to February 2006. Groundwater impacts have been

delineated and groundwater quality is currently being monitored on a quarterly basis. The site is located approximately 300 feet east of the proposed haul road. Based on the remedial status of the site and the distance to proposed excavation activities for the Project, the release is not expected to adversely affect proposed construction activities.

Site 4 - San Antonio Pumping Station, 5555 Calaveras Road

The San Antonio Pump Station was listed on the leaking underground storage tank (LUST) and State Cortese databases due to a release of gasoline from a former UST at the site. The release was discovered when the UST was removed in 1990. The release was classified as a "soil only" release, indicating that the contamination was limited to soils in the former UST area and did not migrate via groundwater. This case was closed in August 1996. Based on the remedial status of the site, the former release is not expected to affect proposed construction activities.

Sites Within One Mile of Construction Areas

Hazardous Material Use, Storage and Disposal

Site 5- Sunol Quarry/RMC Pacific Materials, 65627 Calaveras Road

The site was listed in the Mines database as a gravel and sand quarry for construction materials and is located adjacent to the western boundary of the proposed spoils reuse area. The site was listed on the WDS, HAZNET, EMI, and AST databases for hazardous material use, storage, and disposal. The site was also listed for a hazardous material release, which is discussed, below.

Site 6 – Mobil Station (18-HL8), 26051 La Paz Road

This site was listed in the UST, SWEEPS, and HAZNET. La Paz Road was not listed in the City telephone directory for Sunol and the site was not observed in the vicinity of the Project during the site reconnaissance. The site has prepared hazardous waste manifests for hydrocarbon solvents, waste oil, and aqueous solution with less than ten percent organic residues. The USTs registered at the site contained petroleum fuels. The site was not listed on the RWQCB GeoTracker database. Based upon the absence of any reported hazardous material releases, the site is not likely to affect proposed construction activities.

Hazardous Material Releases

Site 5- Sunol Quarry/RMC Pacific Materials, 65627 Calaveras Road

According to the ERNS, CHMIRS, SLIC, CS and Cortese databases, diesel fuel was released from a UST in 1990 and another release of diesel fuel occurred from a broken transfer pipeline in 1997. These releases were reportedly cleaned up at the time of the incidents. According to the RWQCB GeoTracker database, the remedial status of the site is closed. Based upon the remedial status of the site, the releases are not likely to affect the proposed construction activities.

Site 7 – Y's Equipment Rental Inc., 3540 Andrade Road

According to the Drycleaner database, a release of an unknown solution containing dissolved metals was reported at the site. The remedial status is active. The site is located approximately 0.75 miles west and across a ridgeline from the nearest proposed construction area and therefore is not expected to affect construction activities.

Orphan Sites

The EDR report listed 38 sites with known hazardous materials uses and releases from poor or inaccurate address information in an "orphan summary." Three of the orphan sites, Chevron Sunol Pipeline, SFWD San Antonio Pumping Station, and Sunol Quarry/RMC Pacific Materials, were listed and identified as Sites 3, 4, and 5, respectively, in Table 1 and Figure 5. The remaining orphan sites were evaluated to determine whether they could potentially affect conditions at the Project. Based on available address information, the remaining sites listed in the orphan summary were considered unlikely to affect the conditions of the Project based on geographical distance from the Project.

Summary of Regulatory Agency Information

Although seven hazardous materials sites were identified within one mile of the Project, and five of those sites have reported hazardous material releases, none of the reported hazardous materials releases would be expected to affect proposed construction, based on the relative locations and remedial status of those sites.

DATA GAPS

The ASTM Standard Method E 1527-05 requires the identification of data gaps, along with actions taken to address these gaps, and an opinion as to whether these gaps are significant. Intervals between available information sources greater than five years between sources from the present to 1940 or the first developed use, whichever is earlier, can be considered a data gap. In addition, the inability to perform activities required by the ASTM Standard (i.e., site reconnaissance or interview with the owner/key site manager) may constitute a data gap.

A 1940 aerial photograph indicated the first developed uses of the Project area. From 1940 to 1953, aerial photographs and historical topographic maps for the Project were not available at intervals of five years or less. By definition, this would constitute a data gap in accordance with the ASTM Standards. However, this data gap is not considered significant because historical land use resources available for the Project indicated only agricultural and water supply pipeline development in the vicinity of the Project from 1940 until 1965 when the SVWTP was constructed. The lack of information sources between 1982 to 1993 was also not considered a significant because the land uses of properties at and near the Project indicated in the 1982 aerial photograph were confirmed during the site reconnaissance, indicating no change in land uses at these properties during intervening years.

Elevated copper concentrations in one composited shallow sample was collected from a boring in the former sludge disposal are. The relative location of the boring and the proposed 78-inch pipeline is unclear. If the elevated copper concentrations were associated with the sludge

disposal in the area and the 78-inch pipeline excavation were to intersect disposed sludge, then at least a portion of the excavated soil would represent a REC. These uncertainties represent a data gap.

A 300-gallon gasoline UST was formerly registered at 6501 Calaveras Road. Information about the age, status, and precise location of the UST was not available in the EDR report or RWQCB GeoTracker database. The unknown details of the UST constitutes a significant data gap; however, based upon the inferred location of the UST which is near the northern-most portion of the haul road and spoils reuse area, the UST would not be expected to affect the Project.

CONCLUSIONS

- Historical land uses at and near the Project have included agricultural, residential, and industrial land uses. Identified historical land uses that have the potential to affect the proposed project include the use of agricultural pesticides and historical water supply treatment operations. These land uses have been present at and near the proposed construction areas as early as 1940.

- Current land uses potentially associated with hazardous materials in the vicinity of the Project include the same land uses identified during the historical land use review: agricultural fields and water supply treatment operations. The use and storage of pesticides was reported at the Valley Crest Tree nursery. The potential presence of pesticides in the soil of the nursery constitutes a REC, which could affect construction workers and excavated soil management. The potential presence of pesticides in the subsurface of the proposed haul road and spoils reuse site could be a concern because surface construction activities may generate and emit dust contaminated with residual pesticides. Hazardous material use and storage was observed for water supply treatment operations at the San Antonio Pump Station, Sunol Valley Chlorimination Facility, and SVWTP. Staining, odors, stressed vegetation or other evidence of RECs was not observed at the water supply treatment facilities or near the Project during the site reconnaissance.

- Evidence of RECs was not observed at or in proximity to the proposed filter basins and washwater recovery basin during the site reconnaissance.

- Based on a Phase II soil and groundwater investigation performed by Aeolus-Northgate JV in 2004 and observations during the site reconnaissance, RECs are not present at or in proximity to the proposed chlorine contact tank and treated water reservoir area.

- Elevated concentrations of copper that may exceed the STLC criteria for California hazardous waste were detected in a shallow soil sample collected from boring B-9A located in the southeast corner of the former sludge disposal area near the proposed 78-inch pipeline. Low levels of PCBs were previously reported in samples collected from the former sludge disposal area adjacent to a portion of the proposed excavation for the 78-inch pipeline. The unknown extent and significance of soil contamination from the former sludge disposal area poses a REC. Impacted soil could affect construction

workers and excavated soil management during installation of the 78-inch pipeline in the vicinity of the former sludge disposal area.

- Seven hazardous materials sites within one mile of the Project were identified in the regulatory database review. Five of the sites had reported hazardous material releases, but the reported hazardous materials releases are not considered RECs that would affect proposed construction, based on the relative locations and remedial status of the sites.

- A significant data gap exists pertaining to a 300-gallon gasoline UST formerly registered at 6501 Calaveras Road in the HIST UST and SWEEPS databases. The UST is a potential REC, but based on the presumed location of the UST downgradient of proposed Project excavation activities, the UST would not likely affect the Project. The relative location of boring B-9A to the proposed 78-inch pipeline is unclear. If the elevated copper concentrations reported in the shallow soil sample collected from boring B-9A were associated with the sludge disposal in the area and the 78-inch pipeline excavation were to intersect disposed sludge, then at least a portion of the excavated soil would represent a REC.

RECOMMENDATIONS

- Representative soil samples should be collected from the west perimeter of the former sludge disposal area where soils will be excavated for installation of the proposed 78-inch pipeline. These samples should be analyzed for total metals (including copper) and PCBs.

- Representative soil samples should be collected in the portion of the Valley Crest Tree nursery where surface soils will be disturbed for the proposed 78-inch pipeline, haul road, and spoils reuse site. These samples should be analyzed for total copper, arsenic, and mercury (metals commonly contained in inorganic pesticides), and organochlorine pesticides. Also, groundwater samples should be collected if excavations would extend to the groundwater table.

- Depending on the analytical results, additional analysis may be required to properly classify soils for waste disposal. Analytical results should be screened against hazardous waste thresholds and ESLs for construction/trench workers. Depending on the findings of the investigation, special soil management and disposal procedures may be required, and/or additional construction worker health and safety procedures implemented, during project construction.

- Prior to project construction, a Construction Risk Management Plan (CRMP) should be prepared to address potential hazardous material issues encountered during construction at the Project. The CRMP should include available data from sampling conducted at the project construction areas, including the investigation recommended above. The CRMP should also include emergency procedures for accidental releases of hazardous materials used or stored during construction activities.

LIMITATIONS

This Phase I Environmental Site Assessment has been conducted and this report has been prepared for the exclusive use of the SFPUC. It is intended to provide an understanding of the current environmental conditions and the potential of onsite environmental degradation from past use or release of hazardous or petroleum based substances at the Project or at adjoining properties. BASELINE's interpretations and conclusions regarding this information and presented in this report are based on the expertise and experience of BASELINE in conducting similar assessments and current local, state, and federal regulations and standards.

In evaluating the Project, BASELINE has also relied upon representations and information furnished by individuals and other outside sources noted in the report, with respect to existing operations and property conditions and the historic uses of the property, to the extent that the information obtained has not been contradicted by data obtained from other sources. Accordingly, BASELINE accepts no responsibility for any deficiency, misstatements, or inaccuracy contained in this report as a result of misstatements, omissions, misrepresentations, or fraudulent information provided by the persons interviewed or documents reviewed.

BASELINE's objective is to perform our work with care, exercising the customary thoroughness and competence of earth science, environmental, and engineering consulting professionals, in accordance with the standard for professional services for a consulting firm at the time these services are provided. It is important to recognize that even the most comprehensive scope of services may fail to detect environmental conditions and potential liability at a particular site. Therefore, BASELINE cannot act as insurers and cannot "certify or underwrite" that a site is free of environmental contamination, and no expressed or implied representation or warranty is included or intended in this report except that the work was performed within the limits prescribed with the customary thoroughness and competence of our profession.

The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, conclusions, and recommendations expressed in the report.

The findings, observations, conclusions, and recommendations expressed by BASELINE in this report are limited by the scope of services and should not be considered an opinion concerning the compliance of any past or current owner or operator of the site with any federal, state, or local law or regulation. No warranty or guarantee, whether express or implied is made with respect to the data reported or findings, observations, conclusions, and recommendations expressed in this report.

ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 Code of Federal Regulations, Part 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and

performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. The qualifications of the document preparers are provided in Appendix E.

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EDR, 2007c, Sanborn Maps Report, Sunol Water Treatment Plant, Sunol, CA 94586, Inquiry Number: 2056446.3s, 19 October.

EDR, 2007d, EDR-City Directory, Sunol Water Treatment Plant, Sunol, CA 94586, Inquiry Number: 2056446.6, 19 October.

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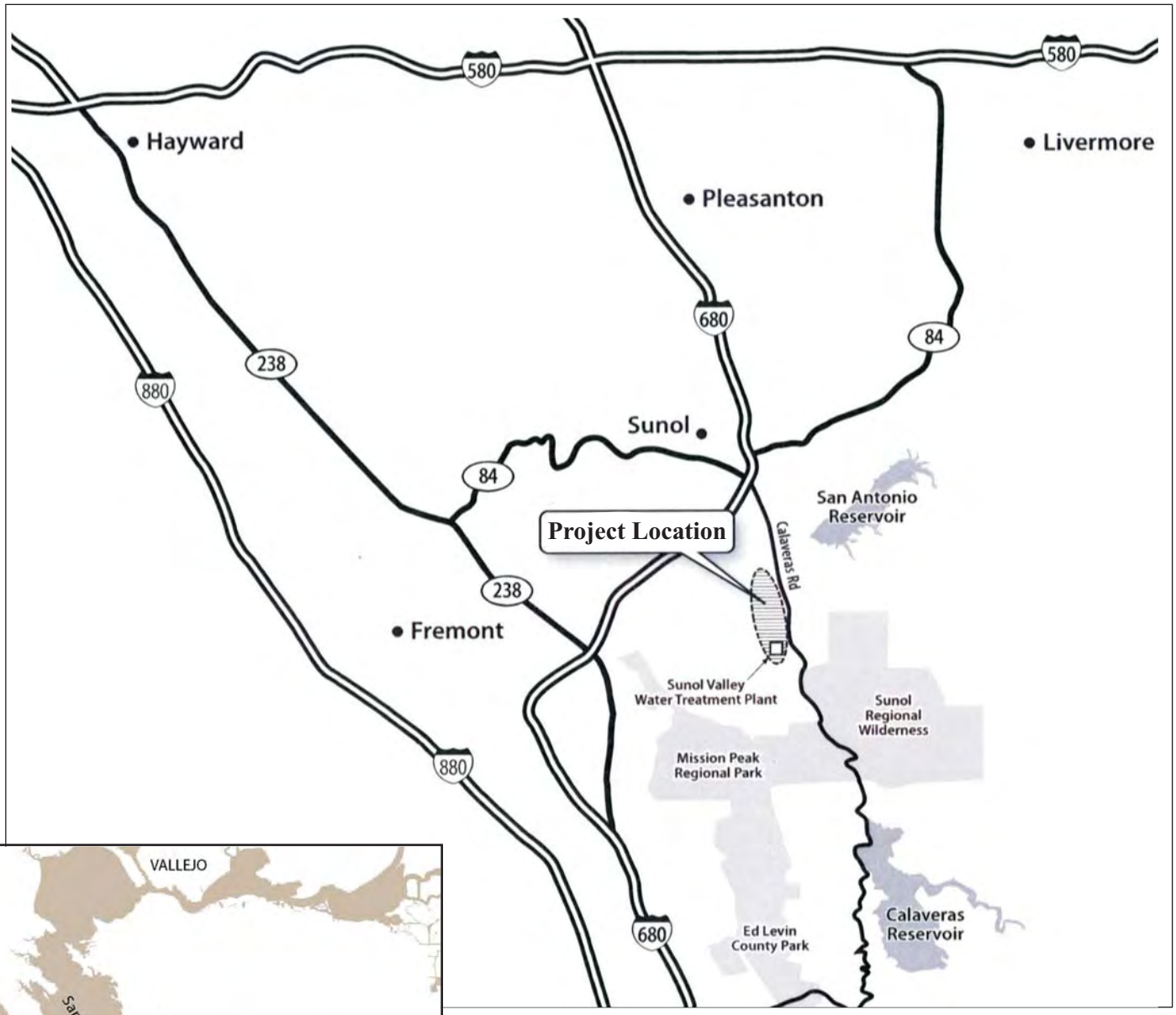
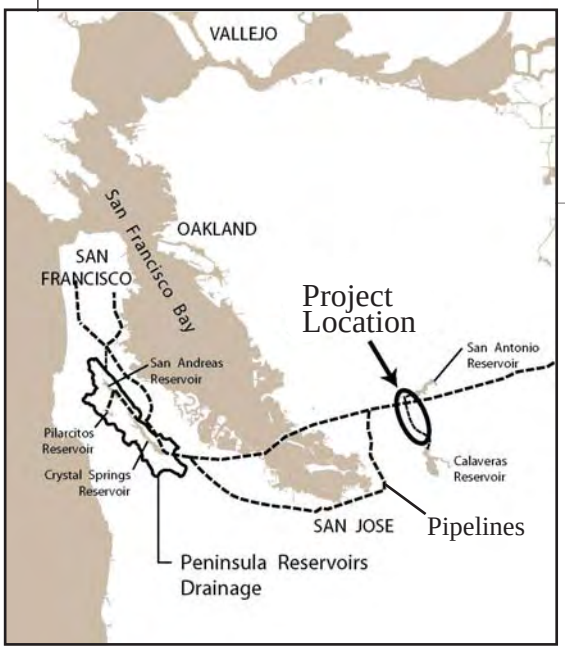
FIGURES

REGIONAL LOCATION

Figure 1





Base maps: SFPUC, 2007.

Sunol Valley Water Treatment Plant Improvement Project
Sunol Valley, California

N

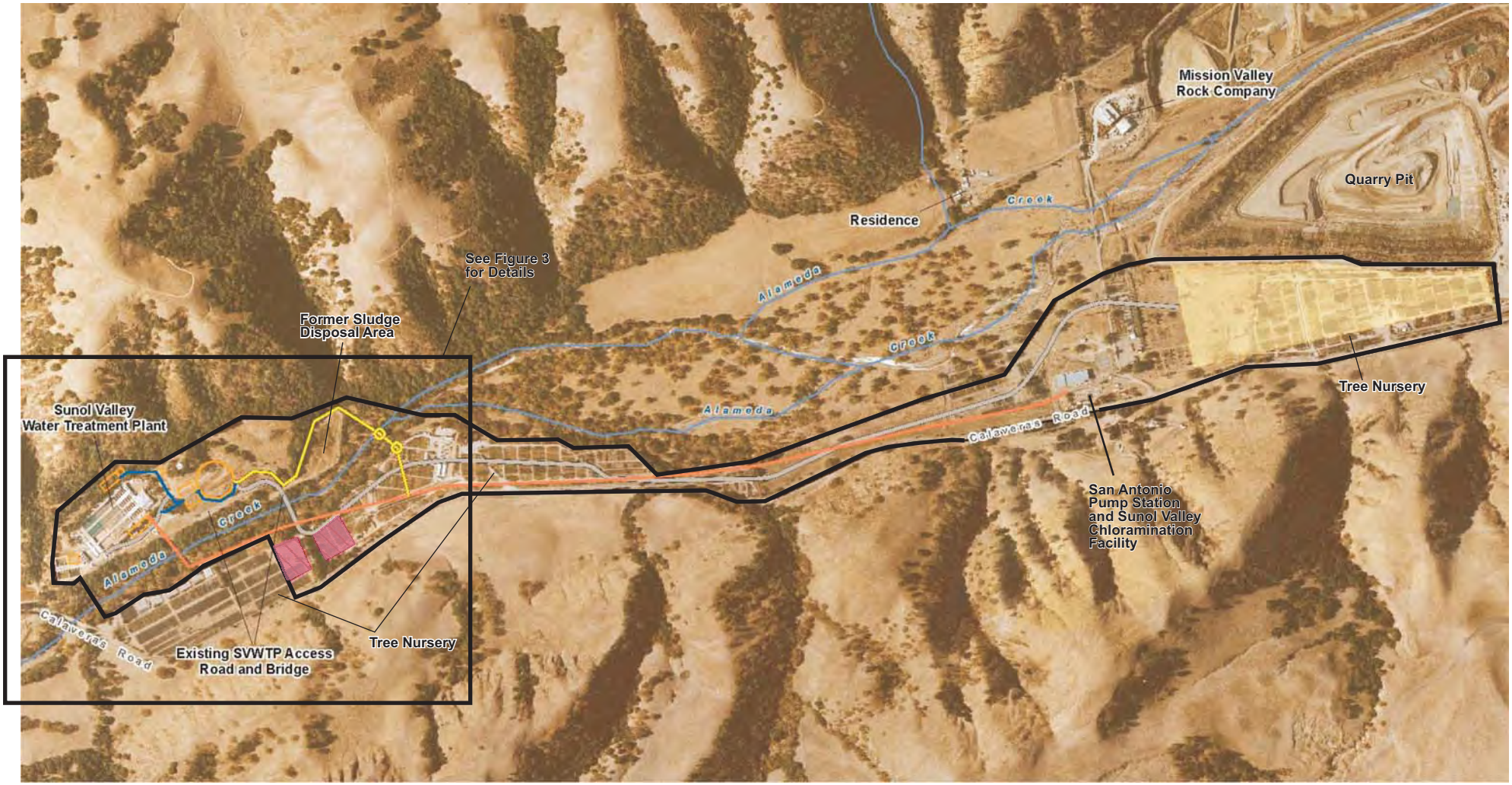
Not to Scale

BASELINE

Y7347-00.00860.Fig1.cdr 11/19/07

PROJECT LOCATION

Figure 2



Legend

- Proposed 78" Pipeline
- Existing 78" Calaveras Pipeline
- Proposed Effluent Pipelines
- Proposed Haul Roads
- Staging Areas
- Proposed Structures
- Proposed Spoils Reuse Site
- Project Study Area

Notes: Base map: SFPUC, 2007.

N

0 1250 Feet

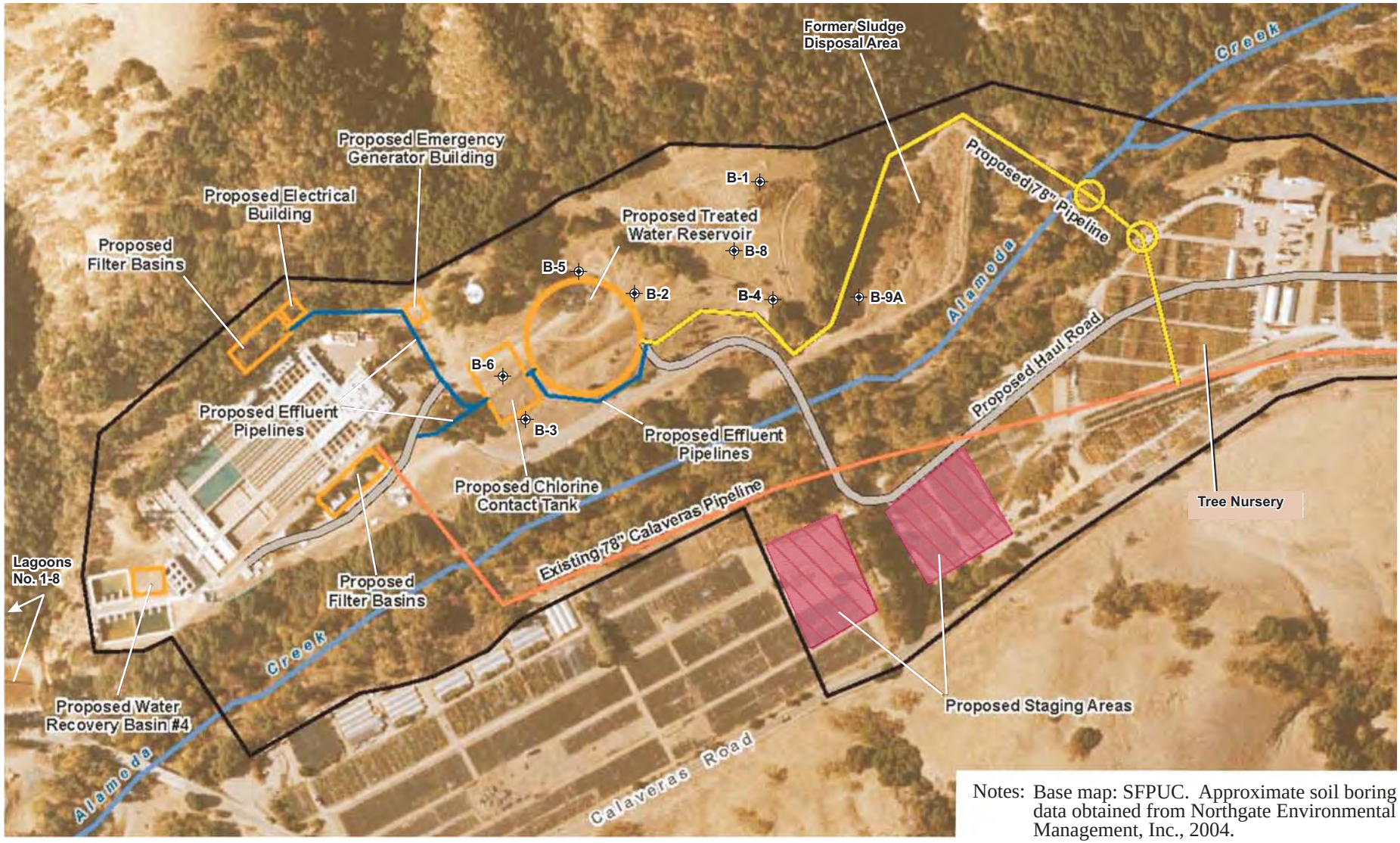
Sunol Valley Water Treatment Plant Improvement Project
Sunol Valley, California

BASELINE

Y7347-00.00860.Fig2.cdr 11/19/07

PROPOSED SVWTP IMPROVEMENTS

Figure 3



Notes: Base map: SFPUC. Approximate soil boring data obtained from Northgate Environmental Management, Inc., 2004.

Legend

- Proposed 78" Pipeline
- Existing Calaveras Pipeline
- Proposed Effluent Pipelines
- Proposed Haul Roads
- Approximate Boring Location
- Staging Areas
- Proposed Structures
- Project Site Boundary

N

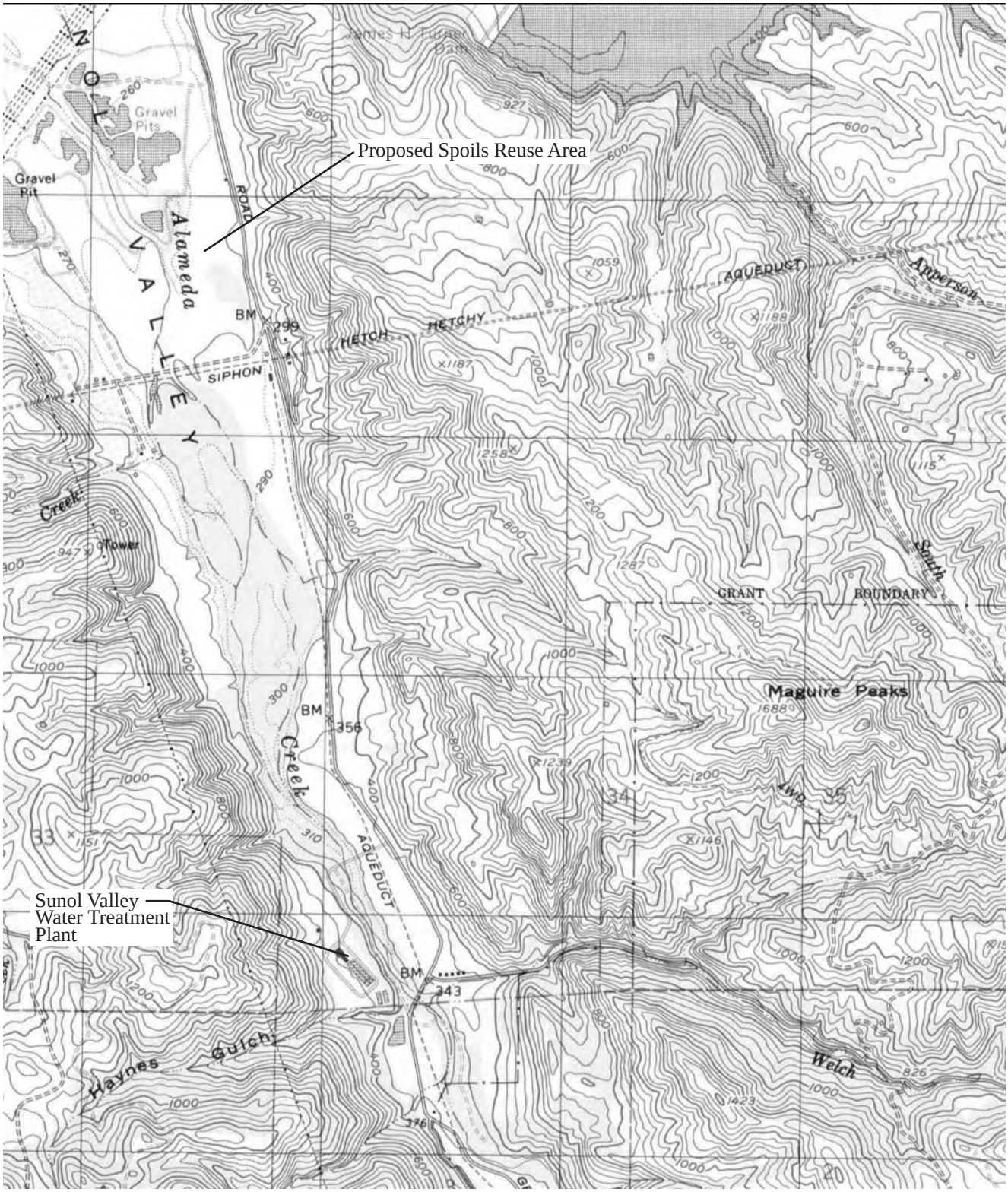
0 400 Feet

Sunol Valley Water Treatment Plant Improvement Project
Sunol Valley, California

BASELINE

Y7347-00.00860.Fig3.cdr 11/19/07

TOPOGRAPHIC MAP OF PROJECT LOCATION Figure 4



Source: USGS, 1996 La Costa Valley 7.5-Minute Quadrangle Map.

Sunol Valley Water Treatment Plant Improvement Project
Sunol Valley, California

N

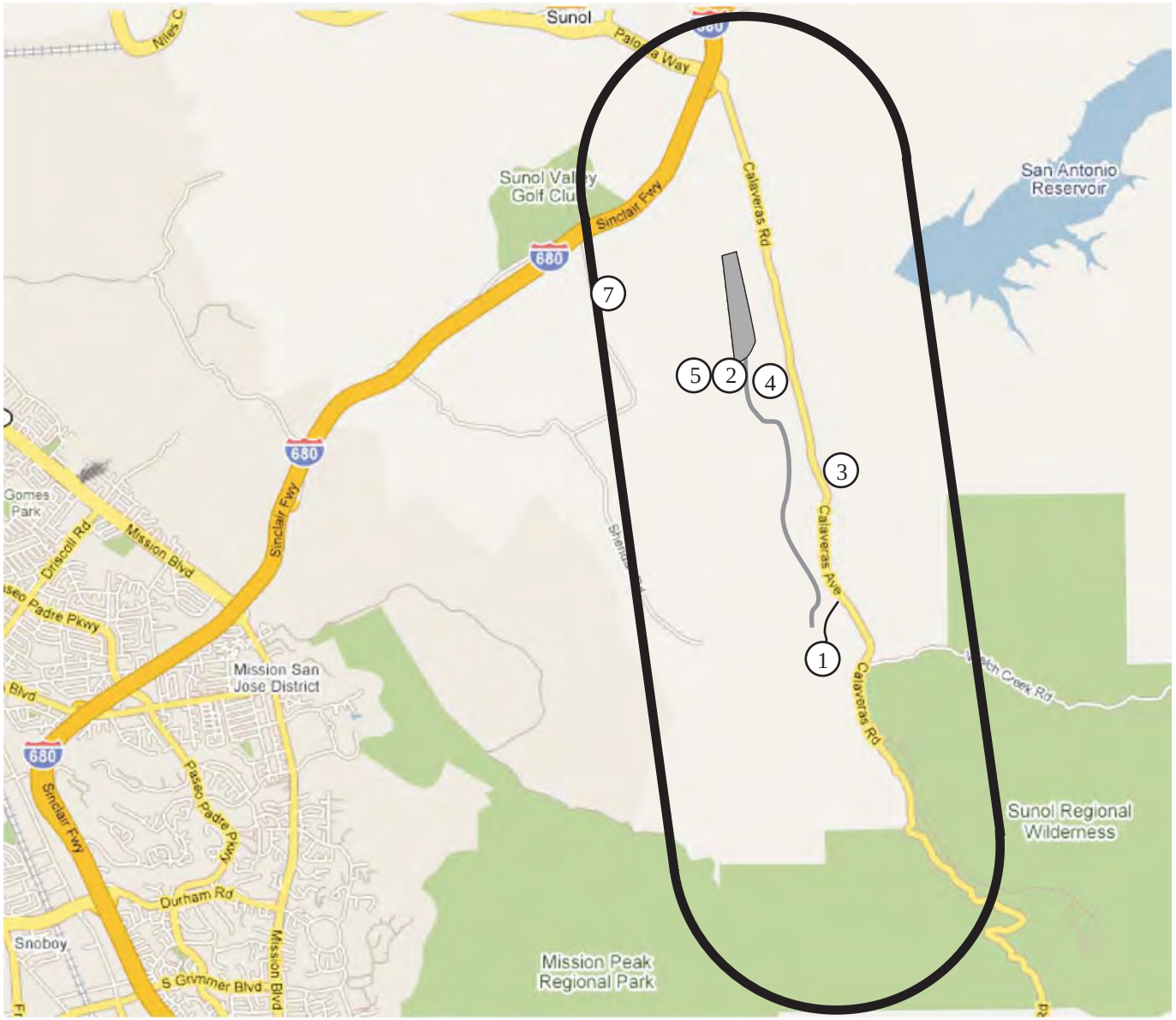
0 2000 Feet

BASELINE

Y7347-00.00860.Fig4.cdr 11/19/07

SITES ON REGULATORY DATABASES WITHIN ONE MILE OF THE PROJECT

Figure 5



Legend

1 — Site on Regulatory Agency List or Database

Approximate One Mile Radius Boundary

Project

Notes:

Numbers inside circles denote site numbers. See Table 2 for site names, addresses, and status.

The address of Site 6 is not listed in the telephone directory, and the street address was not found on a street map of the area.

Site 2 location unknown.

N

0 1 Mile

BASELINE

Sunol Valley Water Treatment Plant Improvement Project
Sunol Valley, California

Source: EDR, 2007.

Y7347-00.00860.Fig5.cdr 11/19/07

TABLE

TABLE 1

SITES ON REGULATORY LISTS AND DATABASES WITHIN ONE MILE OF PROJECT LOCATION

Site No.	Name/Address	List	Status
1	Sunol Valley Water Treatment Plant/City and County of San Francisco Public Utility Commission/Sunol Plant/CCSF-PUC Sunol Filter 8653 Calaveras Road	AST ; HIST UST; HAZNET; WDS; SWEEPS	The site is a listed generator of 74 hazardous waste manifests for inorganic waste, organic waste, solvent mixtures, latex waste, waste oil, alkaline solutions, PCBs, sludge waste, and asbestos containing waste. The site has an industrial waste discharge permit. One 4,000-gallon diesel UST, one 500-gallon waste oil UST, and one 4,000 gallon AST (contents unknown) are registered at the site.
		ERNS; CHMIRS; CORTESE	An estimated quantity of 100 pounds of potassium permangante was released from a storage tank into Alameda Creek on July 20, 1992. In 1993, an empty cut-up storage tank containing residual aluminum sulphate was left uncovered during a rain storm. Runoff from the uncovered tank may have reached Alameda Creek.
2	Rosalyn C. Hays 6501 Calaveras Road	HIST UST; SWEEPS	One 300-gallon gasoline UST historically present at site. UST is not currently registered.
3	Chevron Sunol Pipeline 2793 Calaveras Road	CS	No details available in environmental database report. See text for details of release near alignment.
4	SFWD San Antonia Pumping Station 5555 Calaveras Road	CORTESE; LUST	A release of gasoline from a UST affected soil at the site in November 1990. Contaminated soils excavated and disposed of off-site. Pollution characterization was completed in March 1992 and case was closed in August 1996 according to the CORTESE list and LUST database.
5	Sunol Quarry/RMC Lone Star Sunol Plant/RMC Pacific Materials/Santa Clara Sand and Gravel/CEMEX/Sunol Aggregate Plant #120 6527 Calaveras Road	ERNS; CHMIRS; CORTESE; Alameda CS; CA SLIC	A release of approximately 675-gallons of diesel affected soil at the site in August 1990. In December of 1997, approximately 120 gallons of diesel fuel was released from a broken transfer pipeline. According to the Alemeda CS and SLIC databases, the remediation status for the site is closed.
		WDS; HAZNET; EMI; AST; Mines	One 11,000-gallon AST (contents unkown) is registered at the site. The facility has an industrial waste discharge permit. Construction sand and gravel mine. The site is listed as a generator of two hazardous waste manifests of organic hazardoues waste. Site was listed on BAAQMD inventory in 1987 and 1990 for carbon monoxide emissions. A total of 69 mining regulation violations reported in database records from 2002-2007, with a total of $7,212 reported in fines.
6	Mobil Station (18-HL8) 26051 La Paz Road	UST; SWEEPS; HAZNET	The site is a listed generator of 19 hazardous waste manifests for hydrocarbon solvents, waste oil, and aqueous solution with less than 10 percent organic residues. One 1,000-gallon petroleum UST, one 12,000-gallon unleaded gasoline UST, one 10,000-gallon leaded gasoline UST, and one 10,000-gallon diesel UST are registered at the site.
7	Y's Equipment Rental Inc. 3540 Andrade Road	Drycleaners	Equipment repair and maintenance for laundry services. A release of an unknown solution containing dissolved metals was reported during a facility inspection. The site status is open.

Source: EDR, 2007.

Notes:
AST = State list of aboveground storage tank sites.
CHMIRS = California database of hazardous materials incidents.
CORTESE = State list of hazardous material release sites.
CS = Alameda County Contaminated Sites Database.
EMI = Bay Area Air Quality Management District Toxics Inventory site.
ERNS = Federal database of hazardous materials incidents
HAZNET = State database of hazardous waste generators, based on manifest data.
LUST = State, County, and RWQCB databases of leaking underground storage tank sites.
MINES = Federal database of mining sites.
UST = State registered underground storage tanks database.
WDS = State Waste Discharge Requirements System database of industrial wastewater dischargers.
SWEEPS = Statewide Environmental Evaluation and Planning System listed registered USTs in the 1980s.
HIST UST = Historical UST registered database.
SLIC = California Regional Water Qaulity Control Board database of hazardous materials incidents.
Drycleaners = Drycleaner related facilities identified by the Environmental Protection Agency.
See Figure 13 for site locations.

APPENDICES
(in portable document format on CD-ROM)

A: Historical Land Use Resources

B: ASTM Questionnaire

C: Site Reconnaissance Pictures

D: Environmental Database Report

E: Qualifications of Preparers

Appendix G

List of Preparers

Appendix G

List of Preparers

ICF Jones & Stokes

Project Management Team

Patty Cook	Project Director
Harlan Glines	Project Manager
Laurie Karlinsky	Deputy Project Manager

Technical Team

Alex Hardy	Transportation and Circulation, Aesthetics
Joanne Grant	Cultural Resources
Brent Bouldin	Lead Editor
Dave Buehler	Noise
Jim Wilder	Air Quality
Michelle Jerman	Cultural Lead
Kate Bode	Biology Lead
Jasmin Mejia	Recreation, Population and Housing, Hazards and Hazardous Materials
Kate Walsh	Publications Specialist
Heidi Lypps	Publications Specialist

Avila and Associates Consulting Engineers, Inc.

Ernie Avila	Agricultural Resources, Hydrology and Water Quality, Land Use, Utilities and Service Systems, Public Services
Catherine Avila	Agricultural Resources, Hydrology and Water Quality, Land Use, Utilities and Service Systems, Public Services

Geotechnical Consultants, Inc. (GTC)

Jim Thurber	Geology and Soils, Mineral Resources
Megan Simpson	Geology and Soils, Mineral Resources

Baseline Environmental Consulting

Patrick Sutton	Phase I Environmental Site Assessment

CHS Consulting Group

Byung Lee	Transportation

San Francisco Public Utilities Commission, Bureau of Environmental Management

Kimberley Stern	Environmental Project Manager
Ravi Krishnaiah, P.E.	Senior Project Manager
Kathleen Price	Project Engineer
Steve Shaw	Sunol Regional Operations Liaison

San Francisco Planning Department, Major Environmental Analysis Division

Bill Wycko	Environmental Review Officer
Brett Becker, AICP	EIR Coordinator