NOTICE OF PREPARATION

From: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Project Title: Anderson Dam Seismic Retrofit Project

Project Location: Santa Clara County, California

The Santa Clara Valley Water District will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the above project. The District would like to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached Initial Study.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days after receipt of this notice**. The District will also hold a scoping meeting to provide an additional opportunity for input on the scope and content of the information to be addressed in the draft EIR. The scoping meeting will be held at **6:30 pm on Monday, August 26, 2013,** in the Hiram Morgan Hill Room of the Morgan Hill Community & Cultural Center located at 17000 Monterey Road, Morgan Hill.

Please send your response to:

Kurt Lueneburger
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
(408) 630-3055
klueneburger@valleywater.org

Please provide the name for a contact person in your agency.

Beau Goldie
Chief Executive Officer

8-13-13
Date

Anderson Dam Seismic Retrofit Project

FERC Project 5737

Initial Study

August 2013

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Project No. 91864005

Table of Contents

A. PROJECT DESCRIPTION 1
1.0 INTRODUCTION 1
1.1 CEQA Review 1
1.2 DSOD Requirements 3
1.3 FERC Requirements 3
2.0 GOALS AND OBJECTIVES 3
3.0 PROJECT SETTING 4
4.0 PROJECT DESCRIPTION 4
4.1 Dam Embankment Remediation 4
4.2 Dam Crest Raise and Spillway Capacity Increase 9
4.3 Intake and Outlet Works 9
4.4 Borrow Area Mining 9
4.5 Spoils Disposal 10
5.0 PROJECT CONSTRUCTION 10
5.1 Preliminary Schedule 10
5.2 Personnel and Equipment 11
5.3 Reservoir Dewatering 11
5.4 Access and Staging Areas 12
5.5 Potentially Affected Properties 12
6.0 PROJECT OPERATION 16
7.0 ENVIRONMENTAL REVIEW AND PERMITTING REQUIREMENTS 16
7.1 Topics to be Analyzed in the EIR 17
7.2 Environmental Procedures 18
8.0 CONTACT INFORMATION 18
B. ENVIRONMENTAL CHECKLIST 19
1.0 OVERVIEW 19
2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 20
3.0 EVALUATION OF ENVIRONMENTAL IMPACTS 20
4.0 CEQA ENVIRONMENTAL CHECKLIST 21
C. DETERMINATION 66
D. LIST OF INITIAL STUDY PREPARERS 67
E. REFERENCES 68
F. APPENDIX A-1

List of Figures

Figure 1 Project Location
Figure 2 Project Site
Figure 3 Proposed Project
Figure 4 Cross Section of Proposed Dam Embankments
Figure 5 Potential Borrow Area Mining and Spoils Disposal Sites
Figure 6 Park Closures
Figure 7 Potentially Affected Properties

List of Tables

Table 1 Preliminary Schedule
Table 2 Property Details
Table 3 Proposed Project Regulatory Permits, Approvals, and Consultations

A. PROJECT DESCRIPTION

1.0 Introduction

Anderson Dam and Reservoir is a major water supply facility located adjacent to the City of Morgan Hill, California, about 18 miles southeast of San Jose (See **Figure 1**). Anderson Reservoir is the largest of the ten reservoirs owned and operated by the Santa Clara Valley Water District (District) and provides a greater water storage capacity than the rest of the nine reservoirs combined. It is thus a critical facility to the District and to the communities it serves. The dam was completed in 1950 as a zoned, rockfill embankment, has a maximum height of approximately 240 feet, and impounds approximately 90,373 acre-feet of water at its maximum reservoir operating elevation.

Anderson Dam and Reservoir is subject to dam safety regulation by both the California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC) as FERC Project 5737. Anderson Dam is classified under FERC guidelines as a “High Hazard Potential” dam due to the potential incremental loss of life should failure occur.

As a result of a 2011 Seismic Stability Evaluation (AMEC 2011) that identified potential embankment instability as a result of seismic shaking and liquefaction, the proposed Anderson Dam Seismic Retrofit Project (ADSRP or Project) was initiated. A reservoir restriction to 45 feet below the crest of the dam (equivalent to approximately 61,000 acre-feet of reservoir storage) was voluntarily established by the District in 2009. The reservoir restriction has subsequently been reviewed and accepted by dam safety regulators. Between 2008 and 2012, several dam safety deficiencies associated with seismic shaking, fault offset, flood capacity, and emergency drawdown capabilities were identified. These deficiencies include:

- The presence of liquefiable materials in the embankment and foundation of the dam that could result in major slumping and failure of the embankment following a future large earthquake,
- The presence of *conditionally active* faults in the foundation that could rupture the existing low level outlet,
- A spillway that is inadequate to safely pass large floods, and
- Limitations in being able to quickly draw down the reservoir during floods or other emergency events.

The ADSRP consists of construction activities associated with remedying these seismic, flood capacity, and reservoir drawdown deficiencies at Anderson Dam. The ADSRP is being conducted by the District in coordination with resource agencies, stakeholders, and the public. The District has established a target date of December 31, 2018 for the completion of all necessary remedial work to correct the identified deficiencies.

1.1 CEQA Review

As the lead agency responsible for compliance with the California Environmental Quality Act (CEQA), the Santa Clara Valley Water District (District) has determined that ADSRP is a “project” for the purposes of CEQA (pursuant to CEQA Guidelines §15378), and would have the potential to result in significant environmental effects. Accordingly, the District will be preparing an EIR for the project (CEQA Guidelines §15064).

Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 1
Project Location

This Initial Study, which is presented together with the Notice of Preparation (NOP) required by CEQA and the state's CEQA Guidelines (CCR §15082), contains a brief description of the project, including its goals and objectives and potential environmental impacts. It also discusses the process that will be used to determine the scope of analysis in the EIR, and provides an overview of the opportunities for participation in review of the EIR, along with contact information.

1.2 DSOD Requirements

DSOD requires that outlets at major dams have the capacity to draw down the reservoir during an emergency. The DSOD requirements include the capability of drawing down 10 percent of the reservoir elevation in 7 to 10 days, and drawn down to a minimum pool within 120 days. The Anderson Dam outlet does not currently meet these requirements. DSOD drawdown standards apply to new projects and existing dams when the outlet is modified. Because the outlet needs to be modified to meet fault rupture concerns, outlet design must also employ current drawdown criteria. As a result, the replacement outlet at Anderson Dam would be designed to have sufficient capacity to meet these emergency drawdown requirements.

1.3 FERC Requirements

In addition to the seismic deficiencies present at the dam, the spillway at Anderson Dam lacks the capacity to safely pass the flood flows associated with the updated Probable Maximum Flood (PMF). An updated PMF evaluation was recently completed (HDR 2013) and predicts a peak spillway discharge of 95,700 cubic feet per second (cfs) at a reservoir stage of elevation 652.5 feet during the PMF. The peak PMF flow exceeds the current spillway capacity by 50 percent and would cause overtopping of the existing dam embankment by several feet. Overtopping of the dam could lead to failure of the dam. District, DSOD, and FERC dam safety criteria require spillways to be sized to safely pass PMF flows without significant impact to the dam (e.g., overtopping). Consequently, an enlarged spillway, in conjunction with raising the dam crest, is planned to address this deficiency.

2.0 Goals and Objectives

It is the mission of the District to provide Silicon Valley safe, clean water for a healthy life, environment, and economy. The District's primary goals for the proposed Project are to make improvements necessary to:

- Stabilize the dam embankment for the maximum credible earthquakes on the Calaveras and Coyote Creek Faults.
- Modify or replace the outlet works to protect against potential fault rupture risk from the maximum credible earthquake on the Coyote Creek-Range Front fault zone.
- Incorporate other measures to comply with FERC, DSOD and District dam safety requirements, including potential spillway modifications.

In addition to the above project goals, project objectives include:

- Minimize short-term and long-term impacts to the environment, reservoir and water operations, and recreational use of the reservoir.
- Improve operational flexibility.
- Provide access to inspect and maintain the embankment, outlet works, and spillway, without substantially affecting dam and reservoir operations.

3.0 Project Setting

Anderson Dam is located in Santa Clara County, California, 0.8 miles east of U.S. Highway 101 (Cochrane Road exit), about 18 miles southeast of downtown San Jose, and 2.5 miles northeast of downtown Morgan Hill (See **Figure 1**). The dam is situated on Coyote Creek, a tributary to the San Francisco Bay, which creates Anderson Reservoir. Existing project site features are shown in **Figure 2**. The proposed Project site is on land owned either by the District, County of Santa Clara, or private parties.

4.0 Project Description

The proposed Project includes the following elements to retrofit Anderson Dam:

- **Dam Embankment Remediation**
- **Dam Crest Raise and Spillway Capacity Increase**
- **Intake and Outlet Works Construction**
- **Borrow Areas Mining**
- **Spoils Disposal**

The general layout for these elements is shown in **Figures 3** and **5**. Key components of the project are described further below.

4.1 Dam Embankment Remediation

Embankment seismic remediation would consist of excavating a substantial portion of both the upstream and downstream slopes of the dam, removing potentially liquefiable fill and alluvium exposed in the excavations, replacing the excavated material with compacted rockfill, and constructing buttresses on both sides of the dam. In addition, Cochrane Road would be realigned around the expanded downstream embankment.

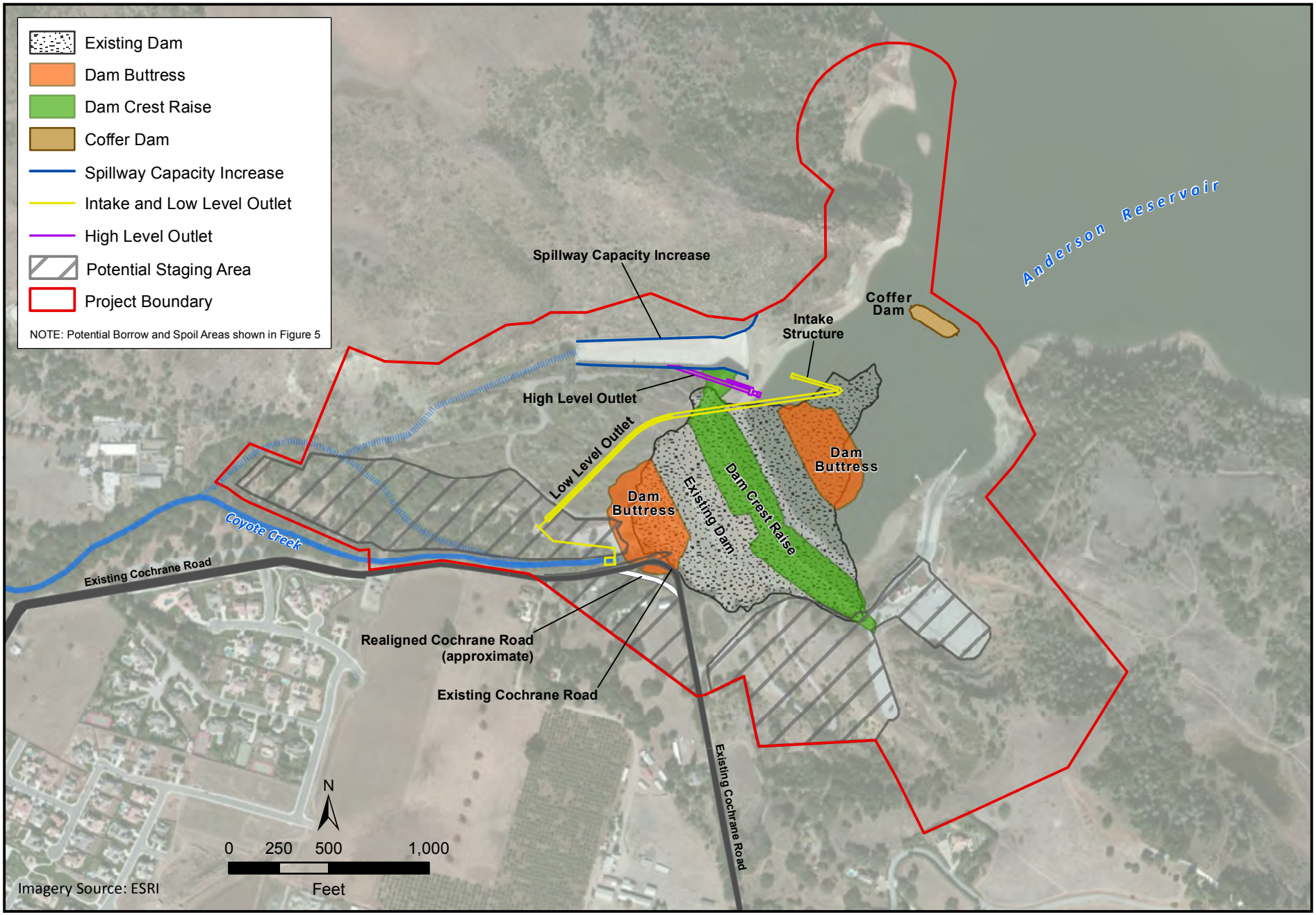
Figure 4 presents a generalized cross section illustrating the embankment measures for the proposed Project. After the reservoir elevation is lowered, the cofferdam is built, and the work area has been prepared, excavation of the downstream and upstream slopes of the dam embankments can proceed.

> *Downstream Slope Stabilization.* Excavation would begin at about elevation 615 feet of the downstream dam slope and proceed to bedrock anticipated to be about 225 feet deep (to elevation 390 feet). The excavation would extend about 100 feet downstream of the existing dam. The downstream embankment would then be reconstructed to match the current dam slope using well compacted rockfill. A new buttress composed of rockfill would also be added to the base of the dam extending the dam footprint about 100 feet downstream.
>
> *Upstream Slope Stabilization.* Excavation would begin at about elevation 610 feet of the upstream dam slope and proceed to bedrock anticipated to be about 220 feet deep (to elevation 390 feet) within the historical stream channel. The excavation would extend about 100 feet upstream of the existing dam. Similar to the downstream face of the dam, the upstream embankment would be reconstructed to match the current dam slope using well compacted rockfill and a new buttress composed of rockfill would be added to the base of the dam. The new upstream buttress would extend the dam footprint about 140 feet into the reservoir.

Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 2
Project Site

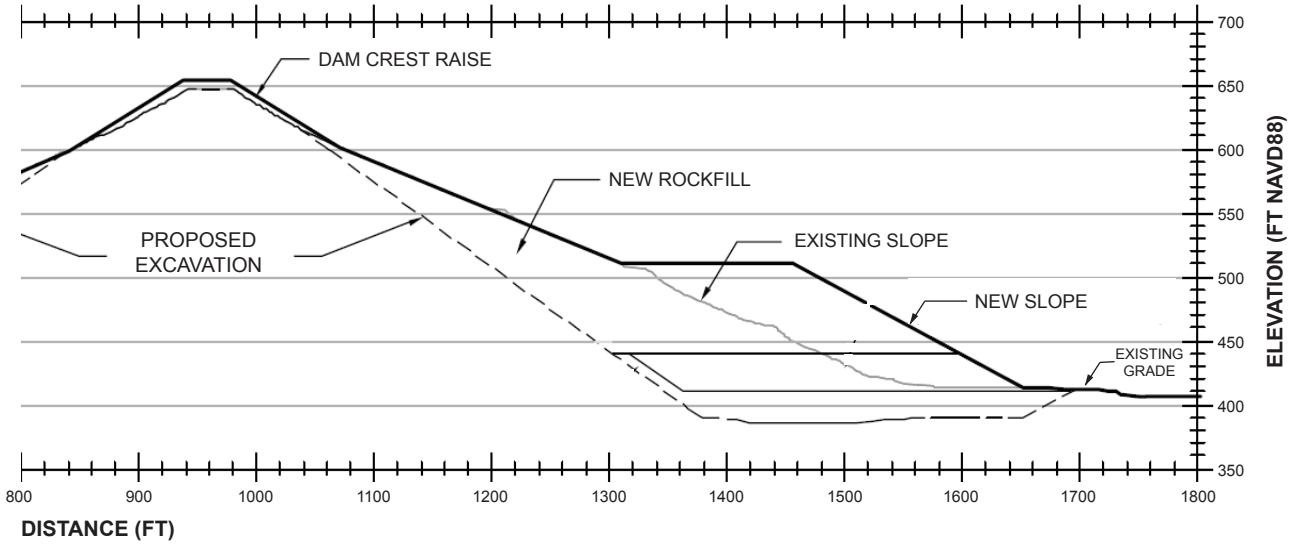


Anderson Dam Seismic Retrofit Project

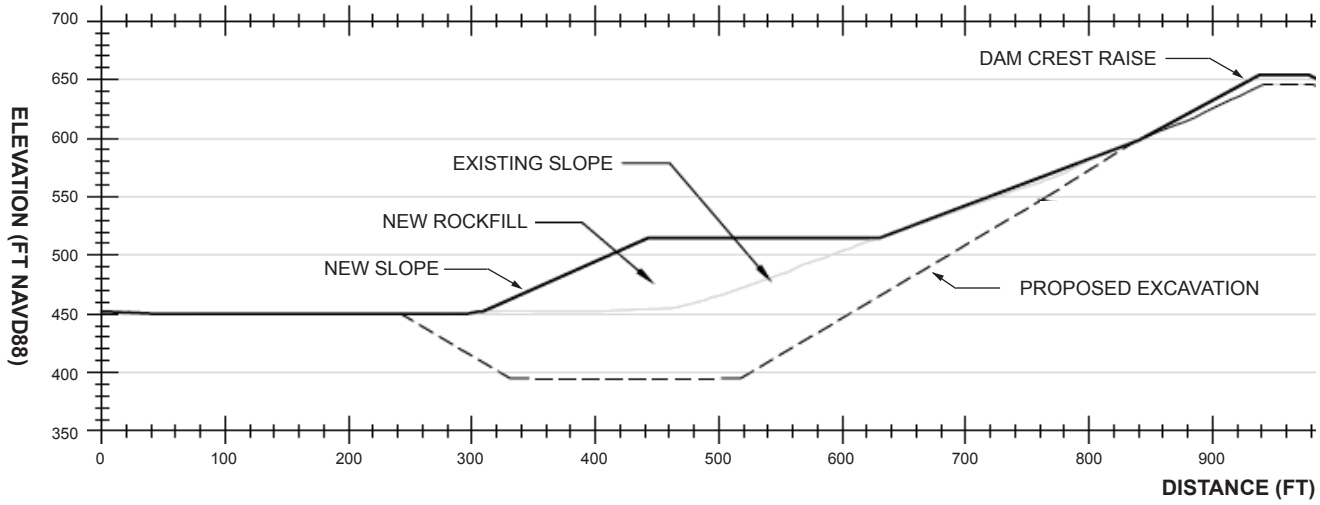
Santa Clara Valley Water District

Figure 3
Proposed Project

Typical Cross Section of Proposed Downstream Slope and Buttress



Typical Cross Section of Proposed Upstream Slope and Buttress

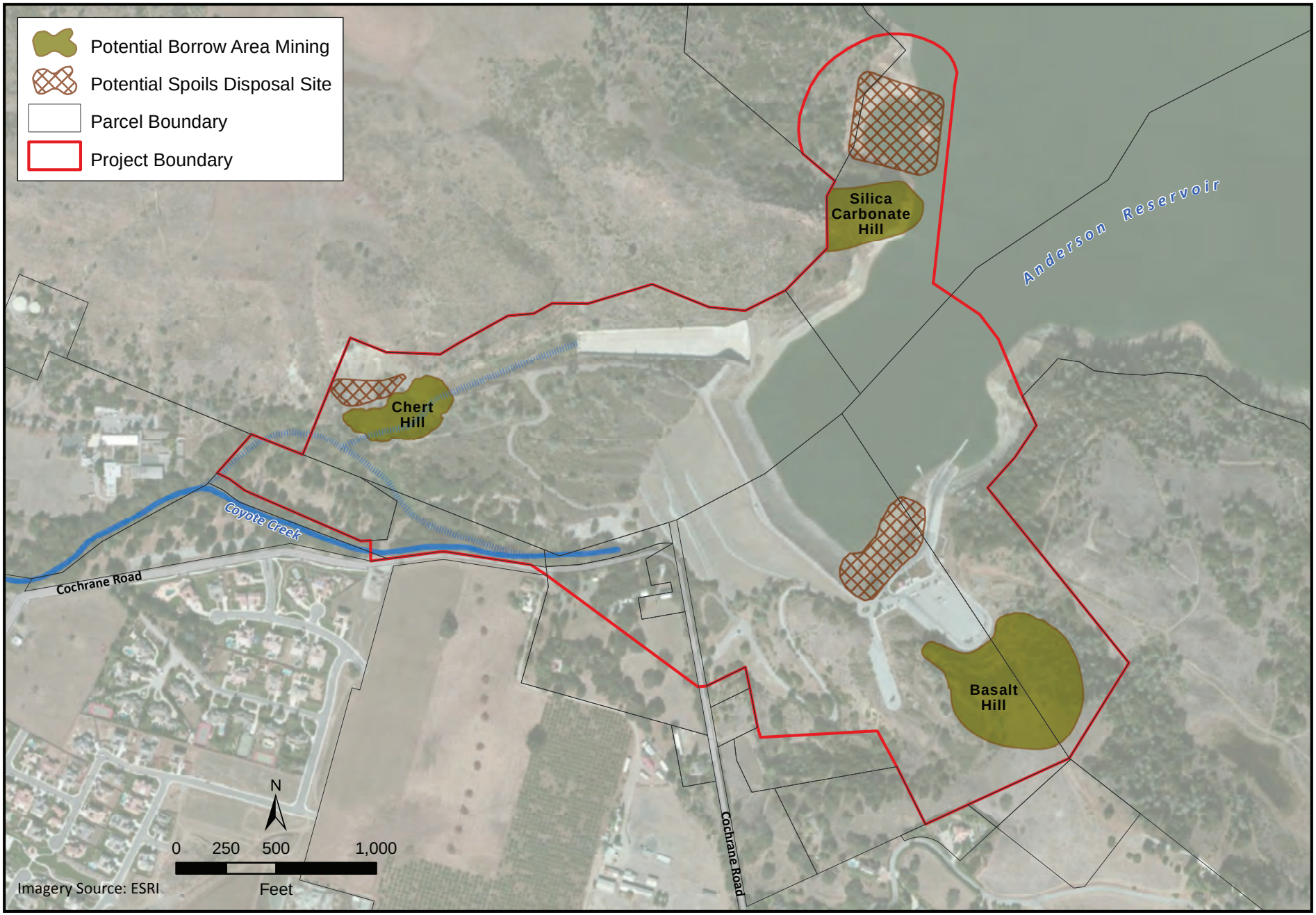


Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 4

Cross Section of Proposed Dam Embankments



Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 5
Potential Borrow Area Mining and Spoils Disposal Sites

4.2 Dam Crest Raise and Spillway Capacity Increase

To accommodate the PMF event, the dam crest and spillway walls would be raised by approximately 7 feet. The crest would be raised by adding compacted soil that would be tapered into the existing dam slopes, while retaining a crest width of approximately 40 feet. The dam crest would be paved for vehicular access.

4.3 Intake and Outlet Works

The Project would construct a new 270-foot long sloping intake pipeline with three intake ports on the northern abutment of the dam. A new intake control building would be constructed at the crest of the dam, and a 350-foot long watertight concrete access way would be constructed along the inclined steel pipeline. The intake structure would be connected to two new outlet pipelines: a high level outlet for emergency drawdown and flood management flows, and a low level outlet for normal operational flows and low level drawdown.

The high level outlet would consist of approximately 350 feet of large diameter steel or reinforced concrete cylinder pipe installed below the southern side of the spillway. The high level outlet would discharge reservoir water directly to the spillway, when needed.

The low level outlet would consist of an approximately 1,630-foot cast-in-place, concrete-lined, maintenance tunnel through the northern abutment of the dam containing the steel outlet pipe, an independent low-flow pipe, ventilation, lighting, and required utilities. At the end of the maintenance tunnel, the low level outlet would connect to the existing Anderson Force Main (AFM)[1] with a secondary discharge point to Coyote Creek through an outlet structure and energy dissipation chambers located about 535 feet away, near the toe of the dam. The existing outlet pipe would be abandoned in place by filling it with concrete or cement grout after the new outlet facilities are in service.

4.4 Borrow Area Mining

Three on-site borrow areas have been identified as potential sources for the materials necessary to construct the embankment and buttresses: Basalt Hill, Chert Hill, and Silica Carbonate Hill (See **Figure 5**). Excavation of these materials would likely require blasting and processing to obtain the desired sized material for use in the project. Depending on final Project design, it is possible that all three borrow sites may not be needed, but all three potential borrow sites are described for environmental evaluation purposes.

> *Basalt Hill.* The Basalt Hill quarry was one of the main sources of borrow material used in the original construction of the dam. The floor of the quarry is currently occupied by a parking lot. This site is estimated to contain approximately 885,000 cubic yards (cy) of usable material.

[1] The Anderson Force Main (AFM) is a bidirectional 54-inch pipeline allowing imported San Luis Reservoir water to be gravity fed or pumped into Anderson Reservoir. The AFM also allows for the discharge of Anderson Reservoir or San Luis Reservoir water to Coyote Creek. Additionally the AFM may be utilized to deliver water from Anderson Reservoir to either the Anderson Hydroelectric facility (which then discharges to Coyote Creek) or to District water treatment plants (via the Cross Valley Pipeline).

Chert Hill. This quarry was also was one of the main borrow sources used for the original construction of the dam. This site is estimated to contain approximately 85,000 cy of usable material.

Silica Carbonate Hill. This site is estimated to contain approximately 576,000 cy of usable material. If materials in the Chert Hill and Basalt Hill quarries are of sufficient quantity and quality, it is unlikely that the Silica Carbonate Hill quarry would be developed because access is more limited, and because of the cemented nature of the materials. In addition, it appears that portions of the potential quarry may be on private land, and if the quarry were to be developed, additional property rights would need to be acquired for those portions of the potential quarry.

4.5 Spoils Disposal

Excavation activities are expected to result in waste rockfill that would require permanent disposal. Three disposal sites have been identified to receive excess spoils: Boat ramp, Chert Hill, and Silica Carbonate Hill (See **Figure 5**). Overburden material may also be used for haul road development and for the dam crest raise. Spoils disposed in these locations would remain permanently. As necessary, sites would be treated with erosion controls and vegetated upon project completion.

5.0 Project Construction

5.1 Preliminary Schedule

Project construction would begin in 2016 and be completed at the end of 2018. The bulk of the work would be completed during Year 2 (2017). Construction activities would occur in double shifts (two 10-hour shifts per day), 6 days per week (Monday through Saturday). **Table 1** provides a preliminary construction schedule including basic District assumptions. It is assumed that reservoir drawdown would be initiated prior to the start of construction year 1. A reservoir dewatering plan would be prepared, and is subject to approval by the regulatory agencies.

Table 1. Preliminary Schedule

Construction Year 1 (2016)	▪ Contractor mobilizes in April; ▪ Site, staging areas, and access / haul roads are identified, procured, and upgraded, as necessary (May – June) ▪ Borrow areas are developed and initial stockpiles are created (May – June); ▪ Tunneling for the low level outlet works is initiated from downstream (June);
Construction Year 2 (2017)	▪ Reservoir draw down to prescribed level is concluded by April 15th; ▪ Construct upstream coffer dam (April) ▪ Upstream and downstream embankment work (April - November);

	▪ New intake for low level outlet is constructed and connected with completed tunnel (April – November); ▪ High level outlet tunnel leading to spillway is completed (May). ▪ Reservoir allowed to begin refilling naturally (November)
Construction Year 3 (2018)	▪ Spillway enlargement (April – October); ▪ Dam crest is raised (April – May); ▪ Site restoration is completed (November).

5.2 Personnel and Equipment

The construction process would involve up to approximately 105 workers on site during any day or night shift during peak construction. Contractor equipment could include a construction office and equipment trailers; warehousing and equipment maintenance facilities; and fuel pumps and fuel storage tanks. Mobile construction equipment utilized for the Proposed Project would depend on the selected contractor's planned operations, but may include the following typical equipment:

- tunneling equipment
- excavators
- scrapers
- bulldozers
- graders
- rollers
- compactors
- conveyors
- water trucks
- highway trucks
- off-road hauling trucks
- concrete delivery trucks
- vehicle maintenance truck
- front-end loaders
- pickup trucks
- air compressors
- generators
- hydraulic and pneumatic drills
- welding equipment
- pumps and piping
- back-up lighting systems
- communications and safety equipment
- miscellaneous equipment customary to the mechanical and electrical crafts, and vehicles used to deliver equipment and materials

5.3 Reservoir Dewatering

Construction of the Proposed Project would require the reservoir to be fully dewatered. This would be accomplished by managing reservoir storage and outflows in the year and months leading up to the 2017 construction season. As the construction season approaches, the District would operate the reservoir to safely draw down the reservoir, with a target of reaching

minimum pool (elevation 488 feet) by early 2017. After the reservoir is at minimum pool, water remaining in the reservoir would be pumped into the existing intake structure and discharged to Coyote Creek through the existing outlet. As the reservoir is being drawn down, it may be possible to begin early excavation of the upper embankment slopes.

Coffer Dam. A coffer dam would be constructed upstream of the embankment to maintain a dry work area while construction of the embankments and intake and outlet works is occurring. As soon as the area upstream of the embankment is free of standing water, construction of the cofferdam would begin. The cofferdam would be approximately 10 feet high (crest elevation at about 460 feet) and 240 feet long, with a crest width of approximately 30 feet. No foundation excavation, beyond cleaning up the reservoir sediments, is anticipated to be required. The cofferdam would be primarily constructed from materials obtained from the excavation of the embankment or borrow areas. The coffer dam may be fortified with cement to reduce seepage. Upon project completion, the coffer dam would be left in place and would become submerged as the reservoir refills.

Water Management During Construction. Inflows to the reservoir (due to releases from Coyote Reservoir or natural inflow) would be treated consistent with basin plan (RWQCB 2011) requirements and released to Coyote Creek downstream of the reservoir. An existing backwater pool (see **Figure 2**) would be used as a settling pond to manage water prior to discharge to the creek.

5.4 Access and Staging Areas

Access to the Project site would be accomplished using established roads including U.S. Highway 101, Cochrane Road, and Coyote Road. It is currently anticipated that Cochrane Road would be realigned to allow for construction of the downstream buttress.

Temporary staging areas are shown in **Figure 3**. Portions of the County Park, including the Toyon Group Area and parking lot, boat ramp parking lots, and the park area surrounding the dam, would be utilized for temporary construction staging. However, the Live Oak Picnic Area and parking lot south of Coyote Creek would be available for public use throughout project construction (Live Oak facilities north of the creek, across the pedestrian bridge, would not be accessible during construction). Proposed park and road closures are show in **Figure 6**. An additional two parcels on Cochrane Road may also be acquired for staging purposes.

Staging areas would also be utilized to sort and process mined materials from the borrow sites. This includes the area that would be dewatered between the coffer dam and dam embankment, and an area to the south of the County Park entrance kiosk. Access roads, staging areas, and other impacted areas of the park would be restored upon project completion.

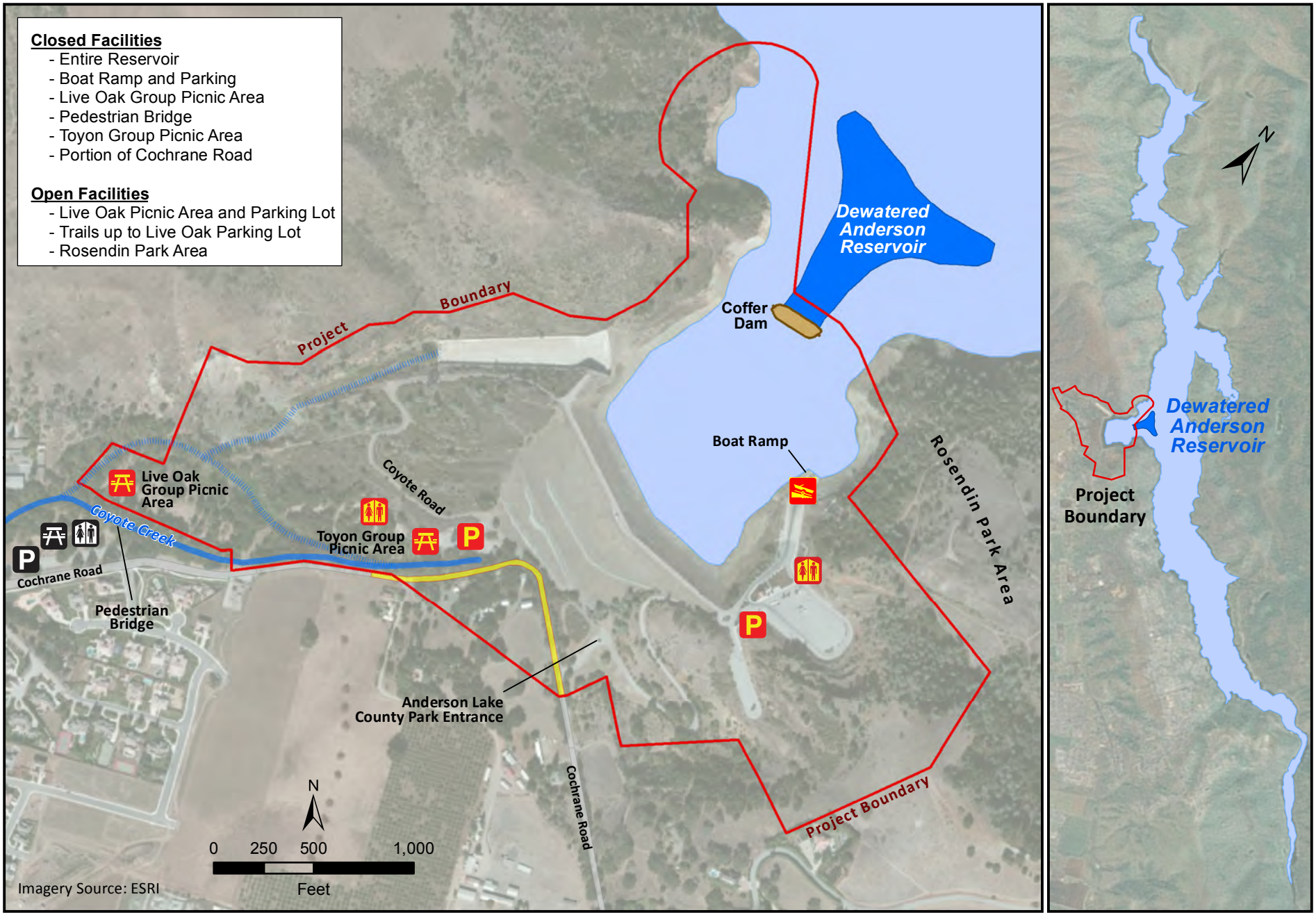
5.5 Potentially Affected Properties

The dam embankment remediation, dam crest raise and spillway capacity increase, intake and outlet works, borrow mining, temporary staging, and permanent spoil disposal areas identified for construction of the proposed Project would primarily occur on District and adjoining County of Santa Clara properties. However, additional temporary and permanent rights-of-way and real estate property would be needed for development of the Silica-Carbonate Hill borrow area, for temporary construction staging, and for downstream embankment construction and Cochrane Road realignment, as described below. **Table 2** provides a description of properties included in the proposed Project boundary. Properties within the boundary are identified by Assessor's Parcel Number (APN) and shown on **Figure 7**. Proposed project boundaries should be

considered approximate at this stage of project development and may be adjusted as project design is developed further.

Table 2. Property Details

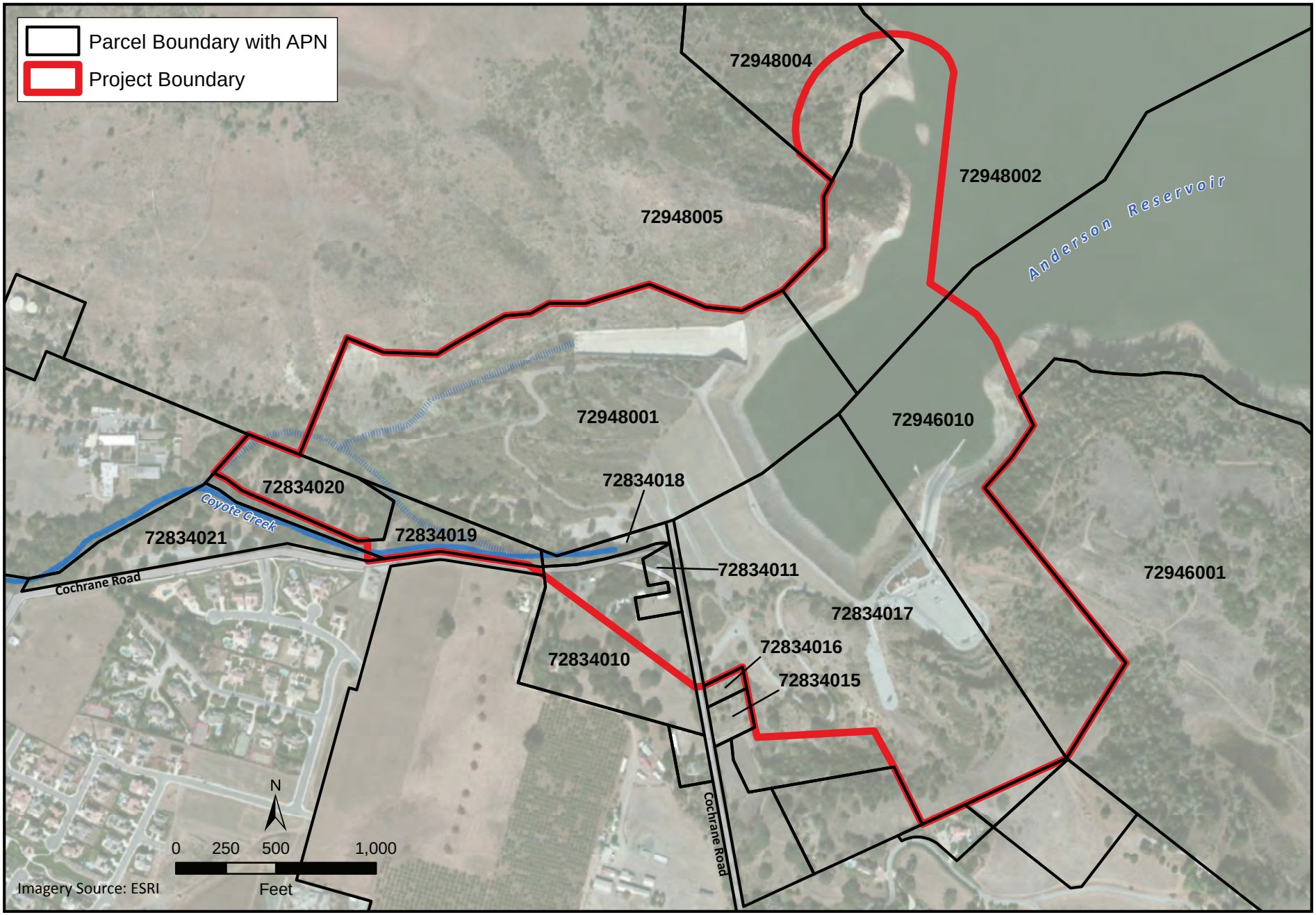
APN & Address (if available)	Ownership	Land Use Authority	Zoning	Existing Land Use	Project Use
728-34-010 / 2290 Cochrane Road	Private	City of Morgan Hill	Rural county	Residential, small-scale agricultural	Temporary Right of Entry for staging, portion potentially acquired for realignment of Cochrane Road
728-34-011 / 2390 Cochrane Road	Private	City of Morgan Hill	Rural county	Single-family residential	Potential acquisition for dam embankment remediation and realignment of Cochrane Road
728-34-017	Santa Clara Valley Water District	City of Morgan Hill	Open space	Open Space / Utility / Water	Temporary staging, Disposal, Dam Embankments Remediation, Dam Crest Raise, Basalt Hill borrow area
728-34-018	Santa Clara Valley Water District	City of Morgan Hill	Open space	Open Space / Utility	Temporary staging, Disposal, Dam Embankment Remediation, Outlet Works
728-34-019	Santa Clara Valley Water District	City of Morgan Hill	Open space	Open Space / Utility	Temporary staging and Outlet Works
728-34-020	County of Santa Clara	City of Morgan Hill	Open space	Open space/Anderson Lake County Park	Temporary Right of Entry for staging
729-46-010	Santa Clara Valley Water District	City of Morgan Hill	Open space	Open Space / Utility / Water	Temporary staging, Disposal, Basalt Hill borrow area
729-48-001	Santa Clara Valley Water District	City of Morgan Hill	Open space	Open Space / Utility / Water	Temporary staging, Disposal, Dam Embankment Remediation, Dam Crest Raise and Spillway Capacity Increase, Intake and Outlet Works, Chert Hill borrow area
729-48-002	Santa Clara Valley Water District	City of San Jose	Open Space	Open Space / Utility / Water	Temporary staging, Disposal, Silica Carbonate Hill borrow area
729-48-004	County of Santa Clara	City of San Jose	Single-family residential	Open space	Temporary Right of Entry for Silica-Carbonate Hill borrow area



Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 6
Park Closures



Anderson Dam Seismic Retrofit Project

Santa Clara Valley Water District

Figure 7
Potentially Affected Properties

6.0 Project Operation

Water stored in Anderson Reservoir results from rainfall in the watershed, inflows from the Coyote Reservoir upstream, and from the United States Bureau of Reclamation (USBR) San Felipe Division of the Central Valley Project (CVP) – specifically, the San Luis Reservoir. Water released from the reservoir is conveyed to Coyote Creek via a sloping intake structure below the boat ramp and an outlet pipe through the center of the dam. The existing outlet can also be used to convey water as needed to the Anderson Force Main Pipeline or the Anderson Hydroelectric facility located about 1,300 feet downstream of the dam.

Current reservoir operations involve water releases from the reservoir for multiple purposes including groundwater recharge, flood control, water supply to the Santa Teresa Water Treatment Plant, power generation, downstream aquatic habitat, maintenance, and emergencies. Existing operations also include delivery of imported water to the reservoir via the Anderson Force Main. The project would add operational flexibility to conduct these existing activities (e.g., the ability to discharge to Coyote Creek and the water treatment system simultaneously, an operation not currently possible). The Project does not include any changes to the existing capacity of Anderson Reservoir, to the capacity or operations of the downstream hydroelectric facility, to the normal operational range of water levels in the reservoir, nor to any existing District rule curves and requirements. While specific maintenance and inspection activities will be affected by the project simply as a result of differing post project apparatus at the dam, the nature and occurrence of post project maintenance activities will not be significantly different from existing conditions.

7.0 Environmental Review and Permitting Requirements

In addition to the District, the CEQA documentation for the proposed Project will be used by agencies issuing permits, as well as other approvals and consultations for the proposed Project. Specifically, information about the proposed Project, and the environmental analysis will be used by several agencies as part of their decision-making process regarding regulations applicable to the proposed Project. **Table 3** provides a list of agencies and applicable permits, approvals and consultations that are expected to be required for the proposed Project.

Table 3. Proposed Project Regulatory Permits, Approvals and Consultations

Agency	Permit / Approval / Consultation
Federal Agencies	
Federal Energy Regulatory Commission (National Environmental Policy Act Lead Agency)	18 CFR Part 2.80, 380 (FERC NEPA Regulations)
NOAA-Fisheries – National Marine Fisheries Service	Federal Endangered Species Act – Section 7 Consultation
	Magnuson-Stevens Act – Essential Fish Habitat Assessment
U.S. Army Corps of Engineers	Section 404 Clean Water Act – Permit
U.S. Fish and Wildlife Service	Federal Endangered Species Act – Authorization under incidental take provisions of the Valley Habitat Plan

Agency	Permit / Approval / Consultation
State Agencies	
California Department of Fish and Wildlife	Section 1600 et seq. California Fish and Game Code – Lake or Streambed Alteration Agreement
	California Endangered Species Act – Authorization under incidental take provisions of the Valley Habitat Plan
California Division of Safety of Dams	California Water Code, Division 3 – Approval California Code of Regulations, Title 23 – Approval
California State Water Resources Control Board	Section 402 Clean Water Act – Notification under Stormwater Construction General Permit Order No. 2009-0009-DWQ
San Francisco Bay Regional Water Quality Control Board (Region 2)	Section 401 of the Clean Water Act – Water Quality Certification Porter-Cologne Water Quality Control Act – Waste Discharge Requirements
State Office of Historic Preservation	Section 106 National Historic Preservation Act
Local Agencies	
City of San Jose	Municipal Approvals
City of Morgan Hill	Encroachment Permit, Temporary Right of Entry
	Municipal Approvals
County of Santa Clara	Roads & Airports – Cochrane Road Realignment
	Parks & Recreation – Land Use approvals and Park closure coordination, Temporary Right of Entry
	Planning - SMARA Exemption / Coordination
	Fire Department – Blasting Permit

7.1 Topics to be Analyzed in the EIR

Based on the potential for the proposed project to result in significant impacts on the environment, the District has determined that an EIR is the appropriate level of environmental review. The EIR will assess the proposed project's effects on the environment, to identify significant impacts, and to identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts. An analysis of alternatives to the proposed project will also be included in the EIR. Topics to be analyzed in the EIR, include but are necessarily limited to the following: aesthetics, agricultural resources, air quality, biological resources,

cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation and traffic, and utilities. Responses received to the NOP may modify or add to the preliminary assessment of potential issues addressed in the EIR.

7.2 Environmental Procedures

The NOP initiates the CEQA process through which the District will refine the range of issues and project alternatives to be addressed in the draft EIR. Comment is invited on the proposal to prepare the EIR and on the scope of issues to be included in the EIR.

Please submit any comments within 30 days of receipt of this notice to Kurt Lueneburger, the District's environmental planner for the Anderson Dam Seismic Retrofit project, at the Santa Clara Valley Water District (see *Contact Information* below). In conjunction with the 30-day review period for the NOP, the District will hold a scoping meeting to provide an additional opportunity to learn about the project, ask questions, and provide comments about the scope and content of the information to be addressed in the draft EIR. The scoping meeting will be held at 6:30 pm on Monday, August 26, 2013, in the Hiram Morgan Hill Room of the Morgan Hill Community & Cultural Center located at 17000 Monterey Road, Morgan Hill.

After the 30-day review period for the NOP is complete and all comments are received, a draft EIR will be prepared in accordance with CEQA, as amended (Public Resources Code §21000 et seq.), and the State Guidelines for Implementation of CEQA (CCR §15000 et seq.).

Once the draft EIR is completed, it will be made available for a 45-day public review and comment period. Copies of the draft EIR will be sent directly to those agencies commenting on the NOP, and will also be made available to the public at a number of locations, including the District headquarters and several public libraries in the area. Information about availability of the draft EIR will also be posted on the District's website (http://www.valleywater.org).

8.0 Contact Information

For further information, contact the following:

Kurt Lueneburger
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686
(408) 630-3055
klueneburger@valleywater.org

Additional information relevant to the project and the draft EIR can also be found at http://www.valleywater.org.

B. ENVIRONMENTAL CHECKLIST

1.0 Overview

Project title:	Anderson Dam Seismic Retrofit Project
Lead Agency name and address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118
Contact person and phone number:	Kurt Lueneburger, Environmental Planner (408) 630-3055
Project location:	The project would be located in the Morgan Hill and Mount Sizer Quadrangles. Construction activities would take place primarily in Township 9S, Section 10, Range 3E. 37° 10’ 14.24” N / 121° 37’ 20.97” W (WGS84)
Project sponsor’s name and address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118
Land designation:	Land zoning designations for the parcels are open space or rural country. Surrounding land use includes low-density residential, rural country and some small-scale agriculture.

2.0 Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this Project (i.e., the Project would involve at least one impact that is a “Potentially Significant”), as indicated by the checklist on the following pages.

X	Aesthetics	X	Agricultural and Forestry Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Geology / Soils
X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials	X	Hydrology / Water Quality
X	Land Use / Planning		Mineral Resources	X	Noise
	Population / Housing		Public Services	X	Recreation
X	Transportation/Traffic	X	Utilities / Service Systems	X	Mandatory Findings of Significance

3.0 Evaluation of Environmental Impacts

The degree of change from existing conditions caused by the Project is compared to the impact evaluation criteria to determine if the change is significant. Where it is determined that one or more significant impacts could result from implementation of the Project, mitigation measures would be developed to reduce or eliminate the significant impacts. Existing conditions serve as a baseline for evaluating the impacts of the Project.

The following terminology is used in this document to describe the various levels of environmental impacts associated with the Project:

- A finding of *no impact* is identified if the analysis concludes that the proposed Project would not affect a particular environmental topical area in any way.
- An impact is considered *less than significant* if the analysis concludes that the proposed Project would not cause a substantial adverse change in the environment.
- An impact would be considered to have *potentially significant issues* if the analysis concludes that the proposed Project could cause a significant environmental impact. Proposed Projects that potentially produce a significant impact(s) warrant the greater level of analysis and consideration provided by an Environmental Impact Report (EIR).

4.0 CEQA Environmental Checklist

I. AESTHETICS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?		X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a designated scenic highway?			X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X	

Environmental Setting

Anderson Dam is located in Santa Clara County 0.8 miles east of U.S. Highway 101 (US-101), approximately 18 miles southeast from downtown San Jose. The Dam is visible from US-101. The Project area is not located within the viewshed of any designated scenic highways.

Anderson Dam is constructed of natural materials and is similar in color tones to the earthen shoreline. Three on-site borrow areas have been identified as sources for the materials necessary to construct the embankment and buttresses for the Project: Basalt Hill, Chert Hill, and Silica-Carbonate Hill (See **Figure 5**). The three borrow sites support typical vegetation covering similar to the surrounding landscape. Serpentine grassland and chaparral communities occur on the slopes above the reservoir but the immediate shoreline includes a mix of native and non-native annual and perennial species typical of disturbed areas such as wild oats, bromes and mustards.

Explanations

a) Less than Significant. A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Anderson Dam and Reservoir may provide scenic views to people in the project vicinity, but themselves do not include remarkable landscape elements that create scenic vistas. In addition, the Project site is not designated as a scenic vista by the Caltrans Scenic Route Program or in the Santa Clara County General Plan (County of Santa Clara 1994).

b) No Impact. No designated or eligible state scenic highways are located in the Project vicinity (Caltrans 2011) with views of the Project site. Therefore, the Proposed Project would not impact scenic resources, trees, outcroppings, and historic buildings within a state scenic highway viewshed.

c) Potentially Significant Issue. Many of the Project activities would occur within previously impacted areas. However, the Proposed Project includes raising the dam crest by approximately seven feet. The crest would be raised by adding compacted fill materials

tapered into the existing dam slopes, while retaining a crest width of approximately 40 feet. The existing pavement on the dam crest would be removed and restored upon project completion.

Three borrow areas could be used to provide the District with materials for the Dam retrofit. The development of the borrow areas would include removal of vegetation and grading activities. A number of trees within the borrow areas and staging areas, including roadways used to access these areas, may be removed. Once the Project is completed, the District would revegetate the borrow areas in accordance with a site specific revegetation plan.

The Silica-Carbonate Hill borrow area is a prominent outcrop that is visible from the Dam and Park area around the Dam. If the Project requires mining the entire Silica-Carbonate Hill borrow area for the dam reconstruction, this outcrop would be removed. This would substantially change the scenic quality and character of the shoreline of the Reservoir and is considered a potentially significant issue. The District would prepare an analysis of the potential impacts to visual resources associated with construction of the proposed Project features and future operations.

Implementation of the proposed Project would also require complete dewatering of the Reservoir, which would impact the surrounding viewshed. Views of the Reservoir when it is dewatered would be limited to the single-family residences and the Holiday Lake Estates neighborhood on the southside of the Reservoir since recreational sites would be closed temporarily. Upon completion of construction activities the Reservoir would be returned to normal operations, and views of the Reservoir would be restored. Although the Project construction activities would temporarily degrade the existing visual character or quality of the site, they are considered potentially significant. The District would prepare an analysis of the potential impacts to visual resources associated with construction of the proposed Project features and future operations.

d) Less than Significant Impact. Construction activities would occur in double shifts (two 10-hour shifts per day) 6 days per week to meet the construction schedule. Therefore, nighttime lighting would be required during the temporary construction period. Night time construction lighting would be directed away from any existing residences along Cochrane Road as much as possible. As a result, the exposure of residents or other viewer groups to construction lighting is anticipated to be minimal, and this impact is accordingly considered less than significant.

Following construction, existing lighting would be replaced with new permanent lighting that would not differ substantially from the current lighting located at the Project site. Project activities would include installation of new or replacement appurtenances at the Dam, which would be constructed with galvanized metal or painted with a non-reflective paint to reduce the potential for glare. Therefore, upon completion of construction there would be less than significant impacts to lighting or glare that would adversely affect day or nighttime views of the area.

II. AGRICULTURAL AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Issue	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X		
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X		
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Protection (as defined by Government Code section 51104(g)?			X
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?			X

Environmental Setting

Surrounding land uses include grazing lands, single-family rural residences, and parklands on District- and County-owned property.

Two parcels located below the dam at the corner of Cochrane Road and Coyote Road are zoned A-20Ac-d1 and designated as "Exclusively Agriculture with Combining District" by County of Santa Clara (County of Santa Clara 2012). A portion of the parcel located at 2290 Cochrane Road, Morgan Hill (APN 728-34-010) is proposed to be used for temporary project construction staging and a parcel at 2390 Cochrane Road, Morgan Hill (APN 728-34-011) may be permanently acquired to realign Cochrane Road.

Explanations

a) Potentially Significant Issue. The Project would affect Prime Farmland as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (CDC 2013). The privately –owned parcels to be affected by the project contain Keefers Clay loam and are considered Prime Farmland by the U.S. Department of Agriculture, Natural Resource Conservation Service, if irrigated (USDA 2013). During construction, both parcels would be used for temporary staging of equipment and materials. Upon completion of construction activities, the staging area would be returned to pre-project conditions and could be used for agricultural production. However, a small corner of the 2290 Cochrane Road parcel and most of the 2390 Cochrane Road parcel would be permanently converted to non-agricultural use by dam embankment construction and realignment of Cochrane Road. Therefore, the proposed Project may both temporarily and permanently convert Prime Farmland, a potentially significant issue that will be evaluated further in the EIR.

b) Potentially Significant Issue. The Project would not conflict with an existing Williamson Act contract. However, the Project would potentially conflict with existing zoning for agricultural use. The privately-owned parcels below the dam are zoned A-20Ac-d1 and designated as "Exclusively Agriculture with Combining District." Upon completion of construction activities, the staging area would be returned to pre-project conditions and could be used for agricultural production. However, the portions of the parcels would be permanently converted to non-agricultural use by dam embankment construction and the realigned Cochrane Road. Therefore, the proposed Project may both temporarily and permanently conflict with existing zoning for agricultural use. A permanent conflict with existing zoning for agricultural use would be a potentially significant issue that will be evaluated further in the EIR.

c) No Impact. The Project would not conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code section 51104(g).

d) No Impact. There are no designated forest lands in the Project area; therefore, the Project would not convert forest lands to non-forest uses.

e) No Impact. The Project would not involve other changes in the existing environment, which could result in the conversion of Farmland to non-agricultural use. The Project proposes a seismic retrofit of an existing dam; therefore, the activities associated with this action would not encourage the conversion of agricultural land to other uses.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of applicable air quality plans?	X		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X		
d) Expose sensitive receptors to substantial pollutant concentrations?	X		
e) Create objectionable odors affecting a substantial number of people?	X		

Environmental Setting

The proposed Project is located within the Santa Clara Valley subregion of the Bay Area Air Quality Management District (BAAQMD). According to the BAAQMD, the Santa Clara Valley subregion has a high potential for air pollution, specifically for carbon monoxide, particulates, and photochemical precursors for ozone pollution. The BAAQMD region is designated nonattainment of the National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter ($PM_{2.5}$), and the State Ambient Air Quality Standards (SAAQS) for ozone, particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). The region is designated either attainment or unclassifiable for the remaining NAAQS and SAAQS (BAAQMD 2012).

In addition to the air pollutants regulated by the BAAQMD, naturally occurring asbestos may be found in rock and soils in the Project area. Exposure to asbestos containing minerals from inhalation or ingestion can result in severe health problems. Lung diseases from asbestos exposure include asbestosis and mesothelioma, among others (CARB 2008).

The BAAQMD established thresholds of significance for both construction and operation of projects within their boundaries. These thresholds are contained in the BAAQMD California Environmental Quality Act (CEQA) Guidelines, issued in 1999. Although the BAAQMD issued revised thresholds and guidance in June 2010, they were subsequently challenged and set aside by the Alameda County Superior Court because they were not subjected to a CEQA evaluation prior to adoption. Regardless of this fact, the District has adopted the 2010 BAAQMD thresholds for the purposes of this analysis because they were established based on the substantial evidence and represent the most current and appropriate thresholds for use at this time.

For short-term construction-related emissions, quantification is not necessary and projects are assumed to be below the significance thresholds if they implement a set of basic mitigation

measures and, for larger projects such as the proposed Project, a set of enhanced mitigation measures. For long-term maintenance and operational emissions, the threshold of significance for carbon monoxide would be a contribution causing an exceedance of the SAAQS of 9 parts per million (ppm) averaged over 8 hours or 20 ppm averaged over 1 hour. The long-term operational threshold of significance for reactive organic gases (ROG), oxides of nitrogen (NO_x), and $PM_{2.5}$ (exhaust) is 54 pounds per day, 82 pounds per day of PM_{10} (exhaust), and zero pounds per day of local CO, accidental release of acutely hazardous air pollutants, or odors. The BAAQMD CEQA Guidelines provide that PM_{10} and $PM_{2.5}$ (fugitive dust) should be managed by best management practices (BMPs).

Explanations

a) Potentially Significant Issue. Project construction activities have the potential to generate emissions from heavy equipment used during construction, as well as generation of dust. Likely air pollutants from construction including the following: PM dust, criteria pollutants from fuel combustion, and diesel PM. Emissions generated during implementation of the proposed Project could potentially conflict with or obstruct implementation of the BAAQMD air quality plan. In accordance with BAAQMD regulations, this issue will be evaluated further in the EIR. The District will conduct an air quality analysis of the proposed Project to estimate and evaluate potential emissions produced by the construction and operation of the project. Results will be compared to numeric significance thresholds.

b) Potentially Significant Issue. As described above, project construction activities have the potential to generate temporary impacts to air quality resulting from emissions from heavy equipment used during construction. Although the construction activities would be short-term and temporary, they would have the potential to exceed thresholds of significance unless the basic and enhanced mitigation measures are incorporated into construction activities. Long-term maintenance and operation of the project would not likely exceed the significance threshold for daily or annual emissions for ROG, NO_x, and PM_{10}. The air quality analysis conducted for the EIR analysis would evaluate both the short-term construction and long-term operation emissions, and compare these against numeric significance thresholds.

c) Potentially Significant Issue. This issue will be evaluated further in the EIR based on the emissions analysis and results comparison to numeric significance thresholds.

d) Potentially Significant Issue. Sensitive receptors within 0.25 mile of the project area include single-family residential, a juvenile correctional facility, and recreational uses within the Anderson Lake County Park. Construction of the project would have the potential to expose these sensitive receptors to substantial pollutant concentrations from heavy equipment emissions and generation of dust. Also, proposed borrow areas (Chert Hill and Silica-Carbonate Hill) and area surrounding the dam spillway on the northern side of the project area possibly contain naturally-occurring asbestos. Disturbance of asbestos during project construction could expose workers on-site and any downwind receptors to dust containing asbestos. Air quality impacts to sensitive receptors, including possible impacts from asbestos disturbance, could be significant. The potential for exposure to airborne pollutants in comparison will be evaluated further in the EIR.

e) Potentially Significant Issue. Construction of the proposed project could create objectionable odors, particularly while the reservoir is being dewatered. The odors would likely be associated with decomposing organic matter in the reservoir and diesel emissions from construction equipment. These odors may significantly adversely affect single family

residences immediately adjacent to the reservoir and project site. Although the objectionable odors would be temporary, this issue will be evaluated further in the EIR.

IV. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X		
d) Interfere substantially with the movement of any native resident or migratory species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X	

Environmental Setting

Plants and Wildlife.
The proposed Project is located in the California Floristic Province Bay Area subregion (Hickman 1993). The following vegetation communities occur in the Project site and vicinity: California Annual Grassland; Coast Live Oak Woodland and Forest; Coastal and Valley Freshwater Marsh; Developed; Foothill Pine-Oak Woodland; Northern Coastal Scrub/Diablan Coastal Scrub; Northern Mixed Chaparral/Chamise Chaparral; Riparian Woodland, Forest and Scrub; and Waters (e.g., reservoir, spillway pool).

Surrounding land uses of the Project site include Anderson Lake County Park, single family residences, agriculture, District-owned property, County-owned property, and privately-owned open space.

Special-status Plants. **Table A-1** in the Appendix lists the current Federal and State listed special-status plant species that may be affected by the Project. There are known occurrences of special-status plants, including Coyote ceanothus (*Ceanothus ferrisiae*) and Mt. Hamilton thistle (*Cirsium fontinale var. campylon*), within the project site; other special-status plants may also be present. Special-status plants are protected under federal and state regulations.

Special-status wildlife. **Table A-2** in the Appendix lists the current Federal and State listed special-status wildlife species that may be affected by the Project. Known occurrences of special-status wildlife species, including California tiger salamander (CTS), California red-legged frog (CRLF), and a bald eagle nest, are documented at or near to the project site. Impacts on individuals or habitat for special-status wildlife would require incidental take authorization from USFWS and CDFW or coverage through the Santa Clara Valley Habitat Plan.

Fisheries

Anderson Reservoir. According to the California Department of Fish and Wildlife (CDFW) website (2013a), Anderson Reservoir has population of warm-water fishes, including black bass, crappie, and catfish. Other species known to occupy the reservoir include bluegill and carp. Anderson Reservoir is not part of any formal fish stocking program, however, fish species have been introduced into the reservoir over time. No special-status fish species are known to occur in Anderson Reservoir.

Leidy et.al. (2005) reports collection of trout/steelhead (*Oncorhynchus mykiss*) from Coyote Creek in the canyon east of the Town of Madrone (located within present day Morgan Hill) in 1936 (Fry 1936 as cited in Leidy et al. [2005]). Therefore, remnant populations of trout upstream of the reservoir could exist and contribute occasional individuals to the reservoir.

Leidy et al. (2005) also reported that a 1953 CDFW field note described a healthy trout fishery in upper Coyote Creek, upstream of Coyote Reservoir (Pintler 1953 as cited in Leidy et al. [2005]).

Coyote Creek. Coyote Creek, downstream of Anderson Reservoir, has historically supported the most diverse fish fauna among the Santa Clara Basin watersheds. Native species recently recorded in Coyote Creek include splittail (*Pogonichthys macrolepidotus*), Pacific lamprey (*Entosphenus tridentata*), steelhead/resident rainbow trout (*O. mykiss*), Chinook salmon (*O. tshawytscha*), California roach (*Lavinia symmetricus*), hitch (*Lavinia.exilicauda*), Sacramento blackfish (*Orthodon microlepidotus*), Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento sucker (*Catostomus occidentalis*), threespine stickleback (*Gasterosteus aculeatus*), prickly sculpin (*Cottus asper*), riffle sculpin (*C. gulosus*), staghorn sculpin (*Leptocottus armatus*), and tule perch (*Hysterocarpus traskii*) (Buchan and Randall 2003).

Critical and Essential Fish Habitat. Critical habitat and essential fish habitat (EFH) is present in the Project area. Critical habitat for the Central California Coast steelhead Distinct Population Segment (DPS) was designated on September 2, 2005 (70 FR

52488 52630). Coyote Creek downstream of Anderson Dam is included in the critical habitat designation.

EFH is defined in the Magnuson-Stevens Fishery and Act as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH includes areas where Chinook salmon have historically occurred. Coyote Creek is identified in the Pacific Coast Salmon Fishery Management Plan (USGS Hydrologic Unit No. 18050003) as EFH for Chinook salmon. Central Valley fall-run Chinook salmon have also been observed in Coyote Creek since the mid-1980s and successful reproduction has been documented (SCBWMI, 2001).

Wetlands and Waters
The area downstream of the spillway at the proposed Chert Hill borrow site supports riparian wetlands and a stream feature. These features are likely considered jurisdictional waters of the U.S. and State. In addition the reservoir itself below the elevation of the spillway, regardless of the current elevation of the reservoir water level, is likely considered jurisdictional waters of the U.S. and State.

Explanations

a) Potentially Significant Issue. Sensitive biological resources with potential to occur in the Project site were identified from a comprehensive review of the following literature: the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (VHP) (VHP 2012); the CDFW California Natural Diversity Database (CNDDB 2013); California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2013); and the U.S. Fish and Wildlife Service (USFWS) Species Lists (USFWS 2013), as well as information from previous studies performed for the District in portions of the Project site (e.g., District Dam Maintenance Program EIR [SCVWD 2012a] and District Stream Maintenance Program SEIR [SCVWD 2011]) and unpublished data from the District and H. T. Harvey & Associates.

According to the literature review, the Project site supports habitat for several special-status plant and wildlife species. **Table A-1** in the Appendix lists the current Federal and State listed special-status plant species that may be affected by the Project. **Table A-2** in the Appendix lists the current Federal and State listed special-status wildlife species that may be affected by the Project. During preparation of the EIR for the proposed Project, a detailed biological assessment for the proposed Project will be completed to determine impacts to special-status species. Further discussion is provided below.

Fisheries
No special-status fish species occur in Anderson Reservoir. However, federally threatened Central California Coast steelhead, Central Valley fall/late fall-run Chinook salmon, and Sacramento splittail have the potential to occur downstream from Anderson Dam.

Temporary Impacts: Construction-related effects on special-status fisheries habitat could potentially occur while construction activities and equipment are active on the downstream embankment of the dam, or associated with water discharges into Coyote Creek during construction. Potential increases in sedimentation and turbidity resulting from increased runoff and potential hazardous materials spills could result in impacts on Coyote Creek downstream of Anderson Dam.

Construction-related effects on Coyote Creek downstream of the dam associated with drawdown of the reservoir could occur. Turbidity levels in discharges from the reservoir are expected to gradually increase as the reservoir is lowered. Turbidity during the lower flow periods in summer months could impact rearing and emigrating anadromous salmonids, potentially leading to increased predation risk and decreased feeding, as well as respiratory distress.

Temperatures of discharges from the reservoir to Coyote Creek would be similar to existing conditions until the reservoir water levels substantially decline and the season changes from spring to summer. Warm water reservoir releases to Coyote Creek throughout the summer could affect juvenile rearing; resulting in increased stress, reduced predator avoidance, reduced feeding, increased metabolism without concurrent increases in food availability, and thermally-induced mortality could occur.

Decreases in dissolved oxygen (DO) levels also could occur as the reservoir is dewatered. However, DO levels in the creek likely would be rapidly moderated by aeration at the dam outlet and when aerated at downstream riffles.

Permanent Impacts: Implementation of the proposed Project would result in permanent impacts on a small portion of Coyote Creek. Specifically, construction of the outlet structure and new downstream buttress would fill the uppermost portion of Coyote Creek (extending approximately 100 feet from the existing dam), which would result in permanent loss of instream habitat.

Special-status Plant and Wildlife Species

Activities associated with the proposed Project could adversely affect special-status species individuals and/or their habitats. Project activities could directly injure or kill special-status species as a result of crushing or trampling by construction equipment. In addition, habitats for special-status species may be temporarily or permanently lost as a result of project activities. Project activities that occur in close proximity to occupied special-status species habitats (e.g., occupied nests, roosts, or burrows) could indirectly disturb individuals to the point where they abandon those habitats. If populations of these species and suitable habitat are limited locally and regionally, these impacts would be potentially significant.

The EIR will further evaluate the magnitude of Project impacts on special-status plant and animal species. This evaluation will be based on Project-specific design and construction details to be developed during the EIR process and conditions that will be required by the VHP, since this project is a “covered project” under the VHP. Measures to avoid, minimize, and/or compensate for impacts to special-status animal and plant species would be implemented by the Project in conformance with the VHP, National Environmental Policy Act (NEPA)/CEQA requirements, and permit conditions. Payment of impact fees to the VHP for construction impacts would be required. The District would also implement a small restoration project to establish a population of coyote ceanothus to meet conservation strategies of the VHP.

b) Potentially Significant Issue. Ecologically important riparian habitat regulated by CDFW under Section 1600 of the California Fish and Game Code occurs within the Project site, and other sensitive natural communities designated by CDFW[2] are known to be present within the Project site. CDFW is expected to take jurisdiction over riparian habitat

[2] Special status natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects (CDFW 2009; 2010).

associated with Coyote Creek, Anderson Reservoir, and their tributaries. Based on previous 2006-2008 surveys for the District Dam Maintenance Program EIR, the sensitive habitat "Coastal and Valley Freshwater Marsh" occurs below the spillway and "Riparian Woodland, Forest, and Scrub" occurs below the dam along an unnamed seasonal tributary that flows into Coyote Creek. These habitat types also extend downstream of these locations along Coyote Creek. Other sensitive natural communities present on the Project site include serpentine grassland and serpentine chaparral habitats. Mapping of riparian habitat and other sensitive communities will occur as part of the impact evaluation for the proposed Project.

Project activities, such as excavation and fill, could result in the temporary disturbance and permanent loss of riparian habitat and other sensitive natural communities. This impact is considered potentially significant because it could result in temporary degradation and permanent losses of these communities and habitats.

The EIR will further evaluate this impact based on additional mapping of riparian habitat and other sensitive natural communities and an analysis of the potential for construction activities to impact riparian habitat and special status natural communities based on Project-specific design and construction details to be developed during the EIR process.

c) Potentially Significant Issue. Wetlands and other waters of the U.S. are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Waters of the state are protected by the Regional Water Quality Control Board (RWQCB) under the Porter-Cologne Water Quality Control Act, and impacts to the beds and banks of streams, lakes, and ponds are regulated by the CDFW under Section 1600 of the California Fish and Game Code. The entire reservoir, up to the elevation of the spillway crest, is expected to be considered jurisdictional waters of the U.S. by the USACE and waters of the State by the RWQCB. Currently, due the reservoir's elevation restriction, small patches of vegetated wetlands have formed in a few areas where seeps are present along the shoreline, but the majority of the jurisdictional areas within the reservoir are non-vegetated "other waters." A formal jurisdictional delineation of the Project site will be conducted as part of the EIR process for the proposed Project.

Activities associated with the proposed Project could result in temporary and permanent disturbance of jurisdictional wetland and aquatic communities, which provide habitat for fish and wildlife. Project activities could result in the placement of fill, hydrological interruption (e.g., dewatering or diversion), alteration of bed and bank, degradation of water quality (e.g., increased sedimentation and turbidity), and other direct impacts. The activities would primarily result in the temporary loss and disturbance of wetlands and aquatic habitats. Impacts to wetlands and other waters are considered significant because they would result in temporary degradation and limited permanent losses of ecologically valuable wetlands and aquatic habitats, including jurisdictional wetlands and other waters, and temporary disruption of stream continuity during Project activities within the Coyote Creek channel.

The EIR will further evaluate the magnitude of impacts of construction activities on wetlands and waters. This evaluation will be based on Project-specific design and construction details to be developed during the EIR process and VHP conditions.

d) Potentially Significant Issue.

Fisheries
The construction of the proposed project could temporarily disrupt the movement of fish species in Anderson Reservoir and in Coyote Creek downstream of Anderson Dam.

Anderson Reservoir. The reservoir drawdown would result in near complete dewatering, and would result in substantial fish losses except for any fish able to swim into creeks still flowing into the reservoir bed. The combined reduction in habitat availability and water quality with the dewatered reservoir would result in a negative impact on the reservoir fishery, including any native resident fish that may reside in the reservoir. In addition, it may take several years for fish populations to rebound following completion of the dewatering event.

Coyote Creek downstream of Anderson Dam. Although anadromous salmonids (i.e., Chinook salmon and steelhead) are highly migratory and would be capable of moving freely throughout Coyote Creek, a sudden localized increase in turbidity could affect normal behaviors that are essential to growth and survival such as feeding, sheltering, and migrating.

Reduced water quality discharged from the reservoir as a result of dewatering has potential for adverse impacts on fish in Coyote Creek. As required by the VHP, a dewatering plan will be developed, and is subject to approval from regulatory agencies. Additionally, discharges from project construction activities such as tunneling, could contain elevated levels of turbidity. Where feasible, mitigation measures will be prescribed to reduce impacts to less than significant levels.

Wildlife Movement Corridors and Native Wildlife Nursery Sites
Within the Project site, natural habitats (e.g., riparian, oak woodlands, scrub), streams (e.g., Coyote Creek and its tributaries), and the shorelines of Anderson Reservoir may function as pathways for terrestrial wildlife movement that allow animals to move along these areas through the developed portions of the Project site (e.g., parking lot, roadways). Additionally, the project area is a popular nesting area for migratory birds and raptors, including a known bald eagle nest near the project site. Project activities are expected to temporarily impact wildlife movement in these areas.

Temporary dewatering of Anderson Reservoir would result in both temporary beneficial and negative effects for terrestrial wildlife movement (e.g., by mammals). Because more upland habitat would be available for use by these species, mammals may more easily cross the reservoir area in a dewatered condition. However, because terrestrial wildlife may have to travel longer distances to water, they may be potentially exposed to greater predation risk. These effects would also apply to other dispersing or migrating wildlife species, such as reptiles and amphibians. Noise and disturbance associated with construction activities could cause species which commonly use habitats in the Project site for dispersal (e.g., Coyote Creek and its tributaries) to at least temporarily avoid dispersal through the Project site. These effects would be temporary, and once construction activities are complete, wildlife movement conditions would be similar to pre-existing conditions.

One wildlife nursery site, a pallid bat maternity colony, is present in the Project site. This maternity colony, with up to 160 individuals, occurs in a barn southwest of Cochrane Road on one of the temporary staging areas for the proposed Project (Johnston pers. comm.).

Project activities, including use of the staging area and all nearby construction activities may result in the temporary disturbance or loss of this roost site.

The EIR will further evaluate the magnitude of impacts of construction activities on the movement of native wildlife species or with established wildlife corridors and wildlife nursery sites. This evaluation will be based on Project-specific design and construction details and consideration of the various types of species that currently move through and use the Project site.

e) Potentially Significant Issue. Ordinance trees are defined based on the applicable local ordinance (e.g., City of Morgan Hill Tree Ordinance, County of Santa Clara Tree Preservation and Removal Ordinance), unless an agreement between the District and a municipality states otherwise. Often, ordinance trees must meet a minimum size requirement.

Ordinance-sized trees occur on the Project site in upland areas (e.g., oak woodlands) and within the riparian habitats along Coyote Creek where tree removal would be necessary (e.g., downstream of the existing dam). Therefore, Project activities, such as excavation in and placement of fill on the downstream slope of the dam, could result in the permanent loss of ordinance-sized trees. This impact is considered potentially significant because it could result in permanent losses of ecologically valuable trees. The Project EIR will further evaluate this impact based on mapping of ordinance-sized trees and an analysis of the potential for construction activities to impact ordinance-sized trees based on Project-specific design and construction details to be developed during the EIR process.

f) Less than Significant.

Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan
The VHP (VHP 2012) and associated documents are approved and adopted by the six local partners (Cities of Gilroy, Morgan Hill, and San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District). The proposed Project is a covered activity under this plan, and the VHP will provide the federal Endangered Species Act and state Natural Community Conservation Planning Act compliance for those species it covers.

Three Creeks Habitat Conservation Plan (HCP)
The Three Creeks HCP is intended to provide ESA and CESA compliance for the District's water supply operations for species under the jurisdiction of the National Marine Fisheries Service (NMFS). The Three Creeks HCP is currently in the draft preparation stage, and has not been adopted or approved by any local, regional or state authorities. No permanent operational changes are expected to result from this project; therefore the Project is not identified as a covered activity in the Three Creeks HCP.

No other HCPs have been approved or are in preparation in the Project site, and aside from the VHP, no other Natural Community Conservation Plans (NCCP) in Santa Clara County have been approved or are in preparation (CDFW 2013b). The proposed Project will comply with the conditions of the VHP. Therefore, the proposed Project would not conflict with the VHP or any other adopted HCPs or NCCPs, or with any other approved local, regional, or state habitat conservation plans, and thus the impact associated with conflicts between the Project and any adopted HCP or NCCP would be less than significant.

V. CULTURAL RESOURCES: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X		
d) Disturb any human remains, including those interred outside of formal cemeteries?	X		

Environmental Setting

Information presented in this section is based on an initial cultural resources study conducted by Far Western (Byrd and Berg 2006) for the project area. A more detailed study will be conducted for the EIR analysis.

The Project is located in the southeast portion of San Clara Valley along Coyote Creek. This region was occupied during the ethnographic period by politically autonomous, hunter-gather tribelets composed of Ohlone language speakers (Byrd and Berg 2006). Archaeological evidence for the region documents occupation by prehistoric groups spanning 10,000 years BP. A significant portion of the archaeological resources may lie buried beneath the alluvial fans and floodplains that form the valley floors of the Project area. Although such buried resources cannot be detected during a traditional archaeological surface survey, it is possible to distinguish which areas of the modern landscape have potential for buried resources and which landforms are either too old to contain such archaeological remains or which were formed by processes that are unlikely to have preserved intact cultural remains. Based on literature reviews conducted for the District's Dam Maintenance Program EIR (2012), which included Anderson Dam, approximately 94% of the project area has no sensitivity for buried resources. This is due in part to the fact that the actual dam footprint comprises a large percentage of the project site. Another 1% of the area was concluded as having low sensitivity. The remaining 5% is classified as medium-high sensitivity for buried cultural resources. (Byrd and Berg 2006).

Historic Resources

There are two land parcels containing structures that may be disturbed by project construction. The property located at 2390 Cochrane Road, Morgan Hill (APN 728-34-011) is a 1.13-acre parcel that appears to contain a single residence. The building's exact date of construction is unknown, but mapping shows that it was built by 1951. This property has not been found to have any historical status.

The property located at 2290 Cochrane Road, Morgan Hill (APN 728-34-010) was evaluated for historical significance in 2010 and has been designated as a Santa Clara County Historic Landmark (CL11-001). It has also been found eligible for the National Register of Historic Places, California Register of Historical Resources and has a National Register nomination currently pending. The property is considered a historical resource under CEQA Guidelines

section 15064.5. The property has been found significant for (a) representing agricultural development in Santa Clara County and for its association with the development of the California strawberry industry; (b) being associated with historically important individuals James Phegley, I. O. Rhoades and Dr. Harold E. Thomas and; (c) for the architectural value of the Phegley House and horse barn (1860s), and the Rhoades House (1920). The Rhoades house also represents the work of two locally important architects: Andrew Hill, Jr. and Howard Higbie.

Explanations

a) Potentially Significant Issue. JRP Historical Consulting (JRP) evaluated Anderson Dam for the District in 2006, concluding that the dam structure and its associated buildings are not eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR; JRP 2006). Thus the dam and its associated buildings do not constitute a historic property under Section 106 of the National Historic Preservation Act or a historical resource for CEQA compliance.

The proposed Project includes two adjacent private properties (See **Table 2** and **Figure 7**) that have been identified for temporary or permanent acquisition. As described in the environmental setting discussion above, structures on the 2390 Cochrane Road Property have not been documented for eligibility as a historic resource. However, the 2290 Cochrane Road Property is designated as a historic landmark and has been nominated for inclusion in the National Register of Historic Places. Once a formal historic architectural Area of Potential Effect (APE) has been established for the proposed Project, a survey and evaluation of the buildings and structures on these two parcels will be conducted for the EIR. Additionally, the proposed borrow, staging, and spoil disposal areas will also be subject to review and study. The EIR will provide a further evaluation of potential issues related to historic resources; if any of the properties potentially affected by the project are identified as historical resources, the EIR will assess whether project impacts will cause a substantial adverse change in the significance of those resources.

b) Potentially Significant Issue. In 2006, Far Western completed a cultural resources investigation for the Dam Maintenance Program which included Anderson Dam. The study consisted of a records search, archaeological survey within the project APE, buried archaeological site sensitivity assessment, and consultations with the Native American community. Of note, the dam footprint and much of the landscape surrounding the dam had been substantially altered by heavy equipment, including artificial terracing of the area south of the spillway, a borrow cut parking area located east of the dam, and steep, cut hill slopes north of the spillway. Hilly areas south of the dam appeared relatively intact and were intensively surveyed.

The proposed Project will require investigation of an expanded archaeological APE compared to the Dam Maintenance Program APE to include additional lands to accommodate construction needs to incorporate borrow, staging, and spoil disposal areas. While most of these areas may have been subject to prior impacts, those locations with potentially intact soils, such as encountered in hilly areas during the prior survey, will require study.

If cultural resources are identified in the project area and cannot be avoided by the project, then they must be evaluated for listing on the National Register of Historic Places. If an eligible property cannot be avoided, then impacts to the resource must be mitigated. Such mitigation would likely consist of data recovery excavations.

c) Potentially Significant Issue.

Paleontological Resources
Activities that cause surface disturbance in areas not previously subject to disturbance have the potential to uncover paleontological resources (similar to the activities described above that could affect archaeological resources). Construction activities and exploratory work all have some potential to unearth paleontological resources. Anderson Reservoir is within an area that contains rocks of the Franciscan Complex (Wentworth et al. 1998). Overlying rocks include late Mesozoic age serpentinite, Franciscan Melange, and late Tertiary volcanic rocks (see Section VI *Geology and Soils* for more details). Fossil vertebrates from the Franciscan Complex are rare. Known invertebrate fauna from the Franciscan Complex consists of radiolaria and foraminifera from chert, sandstone, shale, and mudstone sediments (Brabb and Blondeau 1983; Sliter et al. 1993).

Irvingtonian-age vertebrate fossils have been recovered from outcrops of the Santa Clara Formation at a site in the foothills approximately three miles north of Anderson Reservoir (UCMP V5313). Barstovian-age vertebrate fossils have been recovered from outcrops of the late Miocene Briones Formation, a distinctly bedded, gray-to-white, fine-grained sandstone and siltstone (Graymer, Jones, and Brabb 1995), at a site in the foothills, approximately three miles north of Anderson Dam (UCMP V5723). Based on this finding, it is possible that fossils could be encountered on site. Exposure of a unique paleontological resource could lead to its destruction, which would be a significant impact. The EIR will conduct a record search to further analyze this potential, and mitigation measures such as construction monitoring and archiving fossils will be identified as appropriate.

Unique Geologic Formations
Geologic formations, their structure and the rocks in them provide information about past geologic conditions. Therefore, rocks may be of scientific, educational, and recreational value. For these reasons typical adverse impacts to unique geologic features include material impairment through destruction, permanent covering, or alteration. The project, as designed, would not materially impair a unique geologic feature by destroying or altering those physical characteristics that convey the uniqueness of the resource. The geologic formations that occur in the vicinity of the project site are not exclusive locally or regionally and are not representative of a type locality of a formation.

d) Potentially Significant Issue. There are no known burial locations within the project area. Nonetheless, there is a potential to unearth previously unidentified human remains during ground disturbing activities. In the unlikely event that human remains are encountered during project construction activities, work shall halt in the immediate vicinity in accord with the State Health and Safety Code section 7050.5. Along with notifying the project archaeologist, the county coroner must also promptly be contacted to determine the origin and disposition of the remains pursuant to Public Resources Code section 5097.98. If the human remains are determined to be prehistoric Native American, the coroner will notify the Native American Heritage Commission within 24 hours. The commission will assign and contact the Most Likely Descendant who will be responsible for making recommendations concerning the disposition of the remains. The archaeologist will assist with compliance of the Native American Graves Protection and Repatriation Act.

VI. GEOLOGY AND SOILS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death related to:			
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X
ii. Strong seismic ground shaking?			X
iii. Seismic-related ground failure, including liquefaction?			X
iv. Landslides?	X		
b) Result in substantial soil erosion or the loss of topsoil?	X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?			X

Environmental Setting

The Project site is located on the southeastern margin of the Santa Clara Valley, a south-ward extension of the valley occupied by San Francisco Bay. The Santa Clara Valley is part of the San Andreas Fault System, which distributes shearing across a complex system of primarily northwest-trending, right lateral, strike-slip faults that include the San Andreas, Hayward, and Calaveras faults.

Anderson Dam is located within the active San Andreas Fault system with the San Andreas Fault located approximately 10 miles southwest of the city of Morgan Hill. The Calaveras Fault passes through the western part of the project area, (California Division of Mines and Geology

1982). These two faults contribute the greatest potential ground motions to this area (California Geological Survey 2004).

The Coyote Creek and Range Front faults (formerly Coyote fault of Dibblee 1973) are located along the eastern margin of southern Santa Clara Valley. Anderson Dam is situated on the Coyote Creek fault, at the boundary between the Coyote Creek fault to the north and the Range Front fault to the south. The purpose of the proposed Project is to protect the dam embankment and outlet against displacement caused by earthquake events on the Coyote Creek fault and nearby Calaveras fault.

Anderson Reservoir is within the Coyote Block and fills the canyon drained by Coyote Creek. Prior to construction of the dam, Coyote Creek drained directly into the Santa Clara Valley forming a broad alluvial fan. The depth of alluvium beneath the Santa Clara Valley surface ranges from several hundred feet, to many thousands of feet on the west side of the valley (California Geological Survey 2004). Coyote Creek continues north toward San Francisco Bay through the Coyote Narrows located between the Diablo Range and the Santa Teresa Hills.

The Coyote Block contains rocks of the Franciscan Complex that are structurally overlain by the Coast Range Ophiolite and Mesozoic marine deposits of the Great Valley Sequence (Wentworth et al. 1998). Rocks include late Mesozoic age serpentinite (Coast Range Ophiolite), Franciscan Melange (chert, greenstone, and (greywacke) sandstone), and late Tertiary volcanic rocks (basalt flows, sills, and dikes (Late Miocene-Pliocene). Stream and alluvial fan gravel deposits of the Mio-Pliocene Silver Creek Gravels are steeply dipping and deformed by regional tectonics. A large, northwest-trending, very steeply northeast-dipping linear ridge of silica-carbonate rock is present upstream of the right abutment and spillway.

The reservoir and dam site were altered by filling and excavation during initial construction. Undisturbed soil is not found on the dam faces; fill material to create the dams was taken from nearby quarries (SCVWD 2012a). Native soils exist adjacent to the dams and soils and surface deposits (SCVWD 2004; NRCS 1958; NRCS 1974). Serpentine soils are located immediately adjacent to Anderson Dam. Serpentine soil units support a number of endemic or nearly endemic species (USFWS 1998). Serpentine soils are discussed in Section IV, *Biological Resources.* Naturally-occurring asbestos, typically present in serpentine soils and serpentine rock within the County, is discussed further in Section III, *Air Quality* and Section VIII, *Hazards and Hazardous Materials*.

Three on-site borrow areas have been identified as potential sources for the materials needed to construct the dam embankment and buttresses, Basalt Hill, Chert Hill, and Silica-Carbonate Hill (See **Figure 5**). Excavation of these materials would likely require blasting and processing to obtain the desired sized material for use in the project.

Landslides in and around Anderson Reservoir have been documented by the District since and prior to dam construction in 1950 (HDR 2013). Aerial photographs dating back to 1939 show landslides existed on the reservoir slopes before the dam was built. Surveys conducted by Coyle (1988) indicate a widespread occurrence of landslides within the reservoir area, two of which are located adjacent to residential homes within the Holiday Lakes Estates neighborhood in the City of Morgan Hill. Factors influencing the landslides in the area include topography, geologic structure, earth materials, seismicity, and rainfall. The activity levels of more recent landsliding are further affected by reservoir operation and other human activities (HDR 2013).

Explanations

a.i, a.ii, a.iii) No Impact

Rupture of a Known Earthquake Fault
The Project site is in Santa Clara Valley which is part of the San Andreas Fault System. This fault system distributes shearing across the San Andreas, Hayward, and Calaveras faults. The purpose of the Project is to increase Anderson Dam's stability and reduce the exposure of people or structures from inundation of the Anderson Reservoir that could currently result from an earthquake. The Project would have an overall beneficial effect with respect to exposing people or structures to damage resulting from the rupture of a known earthquake fault.

Seismic Ground Shaking
As mentioned above, the purpose of the Project is to remediate Anderson Dam's seismic deficiencies and perform other improvements to its spillway and outlet works to meet applicable seismic standards. The primary objective of the Project is to improve Anderson Dam to ensure the facility can withstand seismic shaking generated by earthquakes. The Project would have an overall beneficial effect by improving the safety of the dams and associated facilities in the event of ground movement.

Liquefaction
Liquefaction is the temporary transformation of saturated and very low cohesion or cohesionless soils into a viscous liquid as a result of ground shaking. Liquefaction may occur in water-saturated sediment during moderate to great earthquakes. Liquefied sediment loses strength and may fail; causing damage to structures.

The majority of the Project site is situated on Quaternary alluvial and artificial fill in a known liquefaction hazard area in a region that is susceptible to ground shaking; liquefaction and loss of soil strength could result from such ground shaking. The presence of liquefiable materials in the embankment and foundation of the dam could result in major slumping and failure of the embankment following a future large earthquake. The Project would remove these liquefiable materials and reconstruct the dam in accordance with all relevant provisions of the current Division of Safety of Dams (DSOD) and Uniform Building Codes/ California Building Code (UBC/CBC) standards. With these provisions in place, risks would be minimized to the extent feasible. The Project would beneficially reduce potentially adverse impacts on people and structures due to dam failure caused by liquefaction.

a.iv, c) Potentially Significant Issue.

Landslides
Anderson Dam is located in mountainous areas having steep slopes. Landslide hazards are prevalent in the mountainous and foothill areas in the Project vicinity where there are occurrences of the Franciscan Complex that include highly sheared mélange.

Landslide mapping of the reservoir area has been performed by Scott (1976), Coyle (1988), Meehan (1988), Wahler (1988), and AMEC (2009). As part of the current project, AMEC performed a site reconnaissance of the landslides described in Meehan (1988) at the south end of the reservoir (HDR 2013). Four slides appear to toe out near the elevation of the historic Coyote Creek channel. These four landslides could pose a potential risk to existing homes and public roads if they were re-activated. Additionally, proposed quarry activities could trigger slope failures. The existing landslides around Anderson Reservoir are either active, or can be triggered (re-activated) by several factors including rainfall and reservoir

drawdown. Landslide failure would be a potentially significant hazard to workers at the site, and to structures and vehicles. The potential for landslides to occur as a result of the proposed Project, and associated hazards, will be evaluated further in the EIR.

b) Potentially Significant Issue. The proposed Project would involve reservoir dewatering whereby water would be released from the reservoir at flow rates greater than typical existing conditions. Increased flow rates have the potential to scour or erode downstream habitat; however, dewatering rates would be limited to environmental flow rates established by the Santa Clara Valley Habitat Plan, which would not be large enough to cause substantial scour along the stream channel.

Construction activities would have the potential to contribute to accelerated erosion. During construction, clearing, grubbing, and grading activities would remove ground cover, and expose and disturb soil on slopes. Exposed and disturbed soil would be vulnerable to erosion from runoff during construction, with soil particles becoming entrained in the runoff. Altered drainage patterns on site as a result of construction could also cause redirection and concentration of runoff, potentially further exacerbating the erosion problem. However, the District routinely implements extensive erosion and sediment control Best Management Practices (BMPs). Exposed soils within the work area would be stabilized following the completion of earthmoving activities. Erosion control BMPs, such as silt fences, straw hay bales, gravel or rock-lined ditches, water check bars, broadcasted straw, hydroseeding, or other suitable measures would be implemented consistent with District requirements. A stormwater pollution prevention plan (SWPPP) would also be required, providing an additional regulatory mechanism to ensure effective erosion control during construction. With erosion control BMPs and SWPPP compliance impacts related to accelerated erosion during construction are expected to be less than significant.

After completion of construction activities, any temporary facilities would be demobilized and site restoration measures would be implemented to minimize soil erosion.

Construction earthwork would require removal of topsoil where it is present. Notably, proposed excavation associated with borrow mining activities and dam embankment remediation could have the potential to remove substantial quantities of intact topsoil from areas undisturbed by previous development. Substantial removal of topsoil in undisturbed areas, including sensitive serpentine areas, would be considered potentially significant.

d) Less than Significant. Soils that contain a relatively high percentage of clay minerals have the potential to shrink and swell with changing moisture conditions. The main soil types found in the vicinity of the Anderson Dam site, based on the Natural Resources Conservations Service (NRCS) (http://websoilsurvey.nrcs.usda.gov) for the eastern Santa Clara area, are characterized by the presence of the following soil units; Garretson loam, Gilroy clay loam, Inks stony clay loam, and Montara rocky clay loam. The parent material for these soils is residuum from weathered greenstone, basalt, and sandstone formations that occur at the site. These soil units are classified as being well drained, with bedrock occurring between 10 and 36 inches below the surface. Depth to ground water is in excess of 80 inches for all units. The impact of expansive soils is considered less than significant due to the well drained condition of the soil material and excessive depth to groundwater.

e) No Impact. No septic tanks or alternative wastewater disposal systems would be installed as part of the proposed project. No impacts would occur.

VII. GREENHOUSE GAS EMISSIONS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X		
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purposed of reducing the emissions of greenhouse gases?	X		

Environmental Setting

Climate change results from the accumulation in the atmosphere of Greenhouse Gas Emissions (GHGs) produced primarily by the burning of fossil fuels for energy. These man-made GHG emissions are widely accepted in the scientific community as contributing to global warming. While some of the increase is explained by natural occurrences, *Climate Change 2007: The Physical Science Basis: Summary for Policymakers* (IPCC 2007) asserts that the increase in temperature is very likely (approximately 90 percent) due to human activity, most notably the burning of fossil fuels. For California, similar effects are described in *Our Changing Climate: Assessing the Risks to California* (California Climate Change Center 2006).

Because GHGs (CO_2, methane, and nitrous oxide) persist and mix in the atmosphere, emissions anywhere in the world affect the climate everywhere in the world. Consequently, GHG emissions that contribute to climate change result in a worldwide cumulative impact (global warming) rather than a local or regional project-specific impact typically associated with criteria pollutants. Impacts related to GHG emissions are discussed in the context of the proposed Project's contribution to statewide and global GHG emissions.

The California Global Warming Solutions Act of 2006 (AB 32) established a comprehensive program of regulatory and market mechanisms to achieve reductions in greenhouse gases (GHGs) that are quantifiable, real, and cost-effective. The Act directs responsibility for monitoring and reducing GHG emissions to the Air Resources Board (ARB). Among the most significant components of the Act is the requirement to reduce carbon emissions in California to 1990 levels by 2020.

The BAAQMD developed CEQA guidelines, in 1999 and 2010, to assist local jurisdictions in evaluating potentially adverse impacts on air quality. The 1999 CEQA guidelines provided thresholds for air quality emissions, but did not provide thresholds for GHG emissions. In 2010, BAAQMD adopted air quality guidance which included quantitative thresholds of significance and recommended BMPs and mitigation measures for GHG emissions, among other pollutants. The 2010 BAAQMD thresholds were successfully challenged in court because they were not evaluated under CEQA prior to adoption, and so the BAAQMD does not currently recommend use of its 2010 GHG thresholds. The BAAQMD has indicated that lead agencies may continue to rely on the 1999 BAAQMD CEQA Guidelines for Thresholds, or make determinations of an individual project's air quality impacts based on substantial evidence for the project. Regardless of this fact, the District has adopted the 2010 BAAQMD thresholds for the purposes of this analysis because they were established based on the substantial evidence and represent the most current and appropriate thresholds for use at this time.

Explanations

a) Potentially Significant Issue. The project would generate temporary construction-related GHG emissions, with most of the emissions generated by off-road heavy construction equipment, materials hauling, and daily construction worker trips. The long-term operation of the project, however, would not differ substantially from baseline conditions, and as such would not generate substantial new or altered sources of GHGs emissions. Any potential impacts from GHG generation during construction would be short-term and temporary, but could be significant. This issue will be evaluated further in the EIR, which will quantify emissions and compare them to numeric significance thresholds.

b) Potentially Significant Issue. Construction of the proposed project would generate temporary short-term GHG emissions which may impact the reductions required by the California Global Warming Solutions Act of 2006. Long-term operation of the project would have a negligible effect on GHG emissions. Periodic maintenance activities would be incorporated into existing District maintenance schedules and would, therefore, result in a negligible change to vehicle miles traveled and GHG emissions.

Emissions generated during project construction could be significant. This issue will be evaluated further in the EIR, which will quantify emissions and compare them to numeric significance thresholds.

VIII: HAZARDS AND HAZARDOUS MATERIALS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, storage or disposal of hazardous materials?		X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X		
e) Create a significant hazard to the public or the environment from existing hazardous material contamination on site or nearby?	X		
f) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a substantial safety hazard for people residing or working in the project area?			X
g) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			X
h) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X	
i) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		X	

Environmental Setting

The Project site is on land owned either by the District, County of Santa Clara, or private parties. Surrounding land uses include grazing lands, single-family rural residences, and parklands on District- and County-owned property.

The nearest airport to the Project site is the South County Airport (E16) located approximately 7 miles south of the Project area in San Martin. The nearest school to the Project site is Live Oak High School, which is located 1.7 miles southwest of the Project area at 1505 E. Main Avenue, Morgan Hill. A juvenile detention facility, the William F. James Boys Ranch, operated by Santa Clara County Juvenile Probation Department is located 0.1 mile west of the project area along Coyote Creek at 19050 Malaguerra Avenue, Morgan Hill. This facility houses up to 96 boys that are 15 to 18 years old. Youth housed at this facility receive tutoring to pass the General Education Development (GED) test and participate in work programs on the ranch and community service programs throughout the county, including work for the District.

According to the California Environmental Protection Agency, the provisions in Government Code section 65962.5 are commonly referred to as the "Cortese List." The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with CEQA. The Cortese list, which includes the resources listed below, was reviewed for references to the proposed project site:

- List of Hazardous Waste and Substances sites from the Department of Toxic Substances Control (DTSC) EnviroStor database;
- List of Leaking Underground Storage Tank Sites from the State Water Resources Control Board (SWRCB) GeoTracker database;
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB; and
- List of hazardous waste facilities subject to corrective action identified by DTSC.

Explanations

a, b) Less than Significant Impact. Implementation of the Proposed Project would potentially require the routine transfer, use, storage, or disposal of hazardous materials. During construction, hazardous materials typically associated with proposed construction activities, such as fuel, oil, explosives and lubricants would be employed in the project and staging areas. Operation of intake valves and gates would require hydraulic fluids, typically oil. However, the project would utilize non-hazardous hydraulic fluids for hydraulic systems for the upstream valves and gates if feasible. If this is not feasible, then all hydraulic systems would be separated from reservoir and creek waters such that preventative maintenance can occur with no risk of spills, and if spills were to occur, they would be contained and separate from receiving waters. The District would comply with all relevant federal, state, and local statutes and regulations related to transport, use, storage, or disposal of hazardous materials, and all materials designated for disposal would be evaluated for appropriate State and Federal hazardous waste criteria. Construction and Operation activities would also incorporate BMPs such as hazardous materials storage and handling practices; vehicle and equipment maintenance, storage, and operation measures; maintenance of on-site spill control kits; stormwater pollution prevention plan development, and worksite housekeeping measures. These measures would minimize the potential release of hazardous materials into the wetlands/waterways resulting from the routine use, storage, or disposal of hazardous materials. Therefore, impacts related to the transport, use, storage, or disposal of hazardous materials would be less than significant, and the

proposed Project is not anticipated to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) Potentially Significant Issues. There are no existing or proposed city-operated schools within 0.25 mile of the Proposed Project (Morgan Hill Unified School District 2013). However, the county-operated William F. James Boys Ranch juvenile detention facility is located within 0.25 mile of the Proposed Project construction area; specifically 0.1 mile west of the proposed Chert Hill borrow area. Though this facility is not a standard school, up to 96 juveniles are housed there year round, and the county provides educational coursework. The youth housed at this facility are considered sensitive receptors for potentially hazardous impacts resulting from the proposed Project.

Hazardous materials would be present and handled in project construction areas, and transportation routes to and from the project site. Naturally occurring asbestos is known to be present at the construction site and the project involves a substantial amount of excavation activities. When disturbed and airborne, asbestos is a human health hazard of concern. Potential human health effects due to airborne asbestos are described in Section III, *Air Quality*. Due to the proximity of the project site to the juveniles present at the William F. James Boys Ranch year round, the proposed Project may result in potentially significant impacts. This issue will be evaluated further in the Air Quality section of the EIR.

d, e) Potentially Significant Issue. The proposed Project is not currently included on any list of hazardous materials sites. Based on a review of readily ascertainable public information for the site and vicinity, there is no existing hazardous material contamination on site or nearby (State Water Resources Control Board 2013). However, there is the potential for discovery of previously unknown contamination during ground excavation activities. If hazardous levels of contaminants are encountered, a significant impact on construction workers, the public, and environment could result. Additionally, as discussed in Section III, *Air Quality*, naturally occurring asbestos may be encountered in the project site. Exposure to airborne asbestos could adversely affect human health. These issues will be evaluated further in the EIR.

f, g) No Impact. There are no airports or airport land use plans established within two miles of the proposed Project (County of Santa Clara 2013a), therefore there would be no impact on public safety hazards related to airports.

h) Less than Significant Impact. The primary objectives of the proposed Project are to provide dam stabilization for earthquake protection purposes, and to incorporate measures to address safety deficiencies. Short-term lane closures or detours on Cochrane Road during construction could have the potential to interfere with implementation of emergency response plans. However, because the District would comply with all adopted emergency response plans, and other measures as required by the County during construction activities to ensure that appropriate safety measures are in place in the event of an emergency, impacts would be less than significant. See also Section XVI, *Transportation/Traffic*.

i) Less than Significant Impact. According to the Cal Fire map of Fire Hazard Severity Zones in Santa Clara County, a portion of the site is located within the wildland urban interface of the State Response Area, and it is considered a high fire hazard severity zone (Cal Fire 2007). A portion of the site is also located within the Local Response Area, and is not considered a high fire hazard severity zone. Wildlands in project area could catch fire if an errant spark or heat from construction equipment were to provide ignition. This impact is

limited to construction of the project. During construction, the District would adhere to all fire prevention and protection requirements and regulations of the County and Public Resources Code wildland fire safety measures, as applicable. Therefore this impact is less than significant.

IX. HYDROLOGY: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?		X	
c) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	X		
d) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X	
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X	
f) Otherwise substantially degrade water quality?	X		
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?			X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X
j) Inundation by seiche, tsunami, or mudflow?		X	

Environmental Setting

The proposed Project is located in the Coyote Creek Watershed, the largest watershed in the Santa Clara Basin, encompassing an area of over 320 square miles. Coyote Creek terminates at San Francisco Bay. The entire City of Milpitas and portions of San Jose and Morgan Hill lie within the watershed boundaries, with the remaining area consisting of unincorporated lands within Santa Clara County. The Anderson Dam watershed is approximately 195 square miles and includes Coyote Dam and Reservoir upstream of Anderson Reservoir on Coyote Creek.

Anderson Reservoir is the largest of the District's ten reservoirs and provides a greater water storage capacity than the rest of the nine reservoirs combined. The reservoir also provides emergency backup water supply for the District and incidental flood protection for Santa Clara Valley and the City of San Jose and Morgan Hill. The reservoir has a maximum operating elevation of approximately 240 feet, and impounds approximately 90,373 acre-feet of water at its maximum reservoir operating elevation.[3] Water stored in Anderson Reservoir comes from within the watershed and from the United States Bureau of Reclamation (USBR) San Felipe Division of the Central Valley Project (CVP) – specifically, the San Luis Reservoir. Water stored in the reservoir is released into Coyote Creek to recharge the groundwater basin through filling a series of percolation ponds located downstream (SCVWD 2012b).

Water quality is regulated under the federal CWA and California Porter-Cologne Water Quality Control Act. Under these statutes, Beneficial Uses have been established by the San Francisco Bay RWQCB. Beneficial Uses at Anderson Reservoir include municipal and domestic supply, sport fishing, groundwater recharge, cold and warm freshwater habitat, fish spawning, wildlife habitat, non-contact water recreation, and limited water contact recreation. Beneficial Uses designated for Coyote Creek include sport fishing, groundwater recharge, cold and warm freshwater habitat, fish spawning, fish migration, preservation of rare and endangered species, wildlife habitat, non-contact water recreation, and water contact recreation. Beneficial Uses of the Santa Clara Valley groundwater basin/Santa Clara groundwater sub-basin (also known as Coyote Valley groundwater basin) include municipal, industrial and industrial process, and agricultural water supply (San Francisco Bay RWQCB 2011). Beneficial uses at Anderson Reservoir are identified as impaired under CWA Section 303(d) due to mercury and polychlorinated biphenyls (PCBs), based on fish tissue sampling from bass and carp collected from the lake. Beneficial uses of Coyote Creek in the lower reaches are identified as impaired under CWA Section 303(d) due to trash pollution (SWRCB 2011).

Explanations

a, f) Potentially Significant Issues. Several project construction-related activities have the potential to degrade water quality in a manner that could exceed federal and/or state water quality standards and/or otherwise substantially degrade water quality. The reservoir would be dewatered for one construction season and a coffer dam would be constructed to maintain a dry construction area around the dam. The reservoir would be returned to normal operation following completion of the second construction season. During dewatering, water from the reservoir would be discharged downstream to Coyote Creek through existing outlets.

Water discharged from the reservoir would be expected to contain elevated levels of suspended solids, high water temperatures, and low dissolved oxygen levels, especially as

[3] A reservoir restriction to approximately 45 feet below the crest of the dam (equivalent to approximately 61,000 acre-feet of reservoir storage) was voluntarily established by the District in December 2008.

the water level in the reservoir declines. Discharges of poor quality water from the reservoir could adversely affect water quality conditions in Coyote Creek, especially during the summer low flow period when temperature levels are already elevated. Adverse effects on water quality in Coyote Creek during reservoir dewatering may extend downstream for several miles.

There are known landslides in the southern end of the reservoir that may be triggered when the reservoir is dewatered (HDR 2013). If these landslides become active while the reservoir water levels are lowered, a substantial amount of sediment may slump into the reservoir. This could increase water turbidity temporarily.

Throughout project construction, the excavation areas including the dam embankments, borrow areas, and intake and outlet works tunnels would require dewatering of any nuisance inflows. These inflows, along with runoff from exposed soils in active work areas are likely to contain high concentrations of particulates (high suspended solids/turbidity) and potentially, residual petroleum products from construction equipment. If discharged to Coyote Creek directly, these pollutants would potentially exceed federal and state water quality standards or otherwise degrade beneficial uses.

Temporary staging areas are identified in various locations in the project site. Some of the staging areas would be used to store and process large quantities of rock material for dam reconstruction. These also would have the potential to generate contaminated runoff.

To address temporary impacts the District would incorporate soil stabilization, sediment control, tracking control, waste management and pollution control, and non-stormwater management BMPs into project design. A SWPPP would also be required, providing an additional regulatory mechanism to ensure adverse effects to water quality are minimized to the maximum extent practicable during construction. Potential water quality degradation from construction of the proposed Project will be evaluated further in the EIR. Measures will be identified in the EIR to potentially reduce the level of significance of this impact.

After project construction, the dam and reservoir would be operated similarly to existing conditions and in compliance with federal, state, and local regulations. Project operation would not contribute pollutants identified as impairing water quality in Anderson Reservoir or Coyote Creek. Operation of the proposed Project is anticipated to have less than significant impacts because there would not be any expected changes in operations from what is occurring in the existing conditions.

b) Less than Significant. Anderson Reservoir provides a substantial amount of surface supply for groundwater recharge in the valley downstream. During project construction, the reservoir would be dewatered for nearly three years, thus reducing availability of water for recharge of groundwater basins downstream. However, while the reservoir is dewatered, flows in Coyote Creek downstream of the reservoir would be maintained by water imported from other District supply sources. Therefore, groundwater recharge operations would continue throughout project construction. No adverse effects on groundwater supply would occur. Operational discharges from Anderson Reservoir to support groundwater recharge activities would resume after the project is constructed. This impact is considered less than significant.

c) Potentially Significant Issues. Project construction would involve dewatering Anderson Reservoir, discharges of water from construction work areas to Coyote Creek, and substantial ground excavations at the dam and at three material borrow locations near the

dam. These actions could alter the existing drainage patterns in the project area, such that indirect erosion or siltation would occur.

During project construction, water discharged to Coyote Creek would occur through existing outlets from the dam, and temporary discharges from dewatered construction areas. Measures would be implemented to reduce the potential impacts of construction-related discharges to Coyote Creek.

Up to three borrow areas, Basalt Hill, Chert Hill, and Silica-Carbonate Hill, would be excavated to obtain materials for dam reconstruction (See **Figure 5**). Excavation of these large areas would locally alter drainage runoff patterns, but would not increase the timing or amount of runoff to nearby waters.

The downstream dam embankment would be extended by approximately 100 feet (See **Figure 4**), resulting in filling a portion of the Coyote Creek channel. Currently, the portion that would be filled is concrete-lined and contains multiple outlets: the dam low level outlet, a turnout from the Anderson Force Main, and a return line from the hydroelectric facility. The new outlet structure would be reconstructed in the Coyote Creek natural channel downstream from the existing concrete-lined channel. The new outlet structure would include a concrete lined channel and energy dissipation structure. Operation of the reservoir (i.e., flow releases from the outlet to the Creek) would be the same under post-project conditions. Therefore, a permanent loss of natural creek channel bed would result from the Project, but an increased potential for erosion due to project operational flow releases would not occur.

The impacts described above include several potentially significant issues, and will be evaluated further in the EIR.

d, e) Less than Significant Impact. The proposed Project would raise the dam crest by 7 feet and extend it to the south by about 100 feet (See **Figure 4**). Access roads to the boat ramp parking areas would be realigned around the extended dam crest. The spillway walls would also be raised by 7 feet. The raised dam crest, spillway walls, and access roads would be impervious; the access roads to parking areas and along the dam crest would be paved and the spillway walls would be constructed of concrete. Runoff from these expanded features would not substantially increase the total impervious area of the project site compared to existing conditions. All other existing impervious areas at the project site would likely remain the same size. No new sources of polluted runoff would be created by the proposed Project. After project completion, runoff from the project site would not substantially increase such that flooding on-site or off-site would occur or that the local stormwater drainage system would need to be upgraded. Furthermore, the raise of the dam crest and spillway walls are intended to allow the reservoir to accommodate the probable maximum flood, a beneficial effect related to flood protection and downstream drainage infrastructure. Therefore, this impact is less than significant.

g, h, i) No Impact; Beneficial Effect. Anderson Dam was constructed in part to protect people against large flood events, such as the 100-year flood hazard. The dam impounds flows within the reservoir and protects downstream areas from flood impacts. The dam would continue to provide these functions; the dam is not being removed. Therefore, significance criterion (h) does not apply to the proposed Project.

As described in the Project Description, Anderson Dam is currently at risk of failure and could expose people and structures downstream to flooding due to seismic events and

structural deficiencies. If the dam were to fail, uncontrolled release of reservoir water could result in significant harm to people and structures downstream. The purpose of the proposed Project is to correct these deficiencies to reduce the risk of dam failure. Specifically, the proposed Project would: 1) stabilize the dam embankment for the maximum credible earthquakes on the Calaveras and Coyote Creek Faults; 2) modify or replace the outlet works to protect against potential fault rupture risk from the maximum credible earthquake on the Coyote Creek-Range Front fault zone; and 3) raise the dam and spillway walls to accommodate the probable maximum flood event. By repairing the dam, the proposed Project would reduce the risk of dam failure and protect people and structures against flooding impacts. Therefore, the Project would have a beneficial effect on protecting people and structures from downstream flood hazards.

The Project would not involve placement of housing within a flood hazard area. Therefore, significance criterion (g) would not apply.

j) Less Than Significant Impact. Landslides in the southern end of the reservoir exist that may be reactivated when the reservoir is dewatered (HDR 2013). If these landslides become active while the reservoir water levels are lowered, it is possible that water displaced in the reservoir could create a seiche or standing wave, however the likelihood of such a wave overtopping the dam is less than significant (FERC 2011). The Project site is located too far inland to be influenced by a tsunami event. Thus, the project would have a less than significant impact to exposing people or structures to loss, injury or death involving inundation by seiche, tsunami or mudflow.

X. LAND USE AND PLANNING: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Physically divide an established community?		X	
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X		
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		X	

Environmental Setting

Portions of the Project site are within the sphere of influence of the cities of Morgan Hill and San Jose or within unincorporated Santa Clara County (City of Morgan Hill 2012; City of San Jose 2010). The Project site is on land owned either by the District, County of Santa Clara, or private parties. Residential, small-scale agricultural, and open space lands uses border the Project site. **Table 2** lists the parcels that may be affected by the Project.

The majority of the Project site lies within Anderson Lake County Park, which is on District-owned property. The park includes six separate parking lots, a boat ramp and day-use facilities associated with the reservoir. See **Figure 2** for locations of these features within proposed project boundaries.

Explanations

a) Less than Significant. Project construction activities would primarily occur on property owned either by the District or County of Santa Clara. In addition, temporary and permanent rights-of-way and acquisitions of private property would be needed for project implementation. However, the Project would not involve activities or construction of features that would divide an established community.

b) Potentially Significant Issue. Project construction activities would primarily occur on District-owned property and adjoining County properties. Temporary loss of recreational land use would occur during project construction. Impacts on recreational use are discussed in Section XV, *Recreation*. Existing land uses on District and County properties would reinitiate after project completion and the post-project conditions would not conflict with existing or future designated uses of the properties. Because the disruption in land uses would be temporary, this is not considered a potentially significant impact.

Conflicts with existing use of private parcels, such as by preventing activities or occupation of structures from continuing, removal or relocation of structures, or preventing the designated use of the site from occurring in the future, may result in a potentially significant impact. The EIR will further evaluate this topic, using additional information regarding the existing uses of properties and the Project's proposed temporary and permanent alterations to the site.

c) Less than Significant. Habitat conservation plans covering the proposed Project are discussed in Section IV, *Biological Resources*.

XI. MINERAL RESOURCES: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X

Environmental Setting

Many mineral resource deposits in Santa Clara County are of regional or state-wide significance, as determined by state agencies (County of Santa Clara 1994). Mineral resources of regional or state-wide significance found and extracted in Santa Clara County include construction aggregate (crushed stone, sands, and gravels), deposits of limestone, and, to a lesser extent, salts derived from evaporation ponds at the edge of San Francisco Bay. These

minerals are not known to occur at the proposed Project site. The materials to be quarried from the project areas are not commonly economically desirable for mining.

The California Geological Survey Guidelines for Classification and Designation of Mineral Lands (California State Mining and Geology Board 2000) contains guidelines for classification and designation of mineral lands for determining suitability as Aggregate Resources Areas (ARAs). The guidelines include specific land uses that are considered to be generally incompatible with mining and have been excluded as ARAs. The Economic Exclusion category includes major public or private engineering projects, including dams, and therefore would exclude the project area as containing minerals of state or local importance. Therefore, even if the project site contained minerals of state-wide or local importance, the Project would be exempt from complying with the state's guidelines.

Explanation

a, b) No Impact. Three on-site borrow areas have been identified as sources for the materials necessary to construct the Anderson Dam embankment and buttresses (See **Figure 5**). The three borrow areas are situated in areas previously used as the main sources of borrow material for original construction of the dam. The three on-site borrow areas are generally feasible for use as borrow areas for the proposed Project, and three of the four basic material types needed for construction (General Rockfill, Select Rockfill, and Clayey Earthfill) likely can be developed from these on-site borrow areas and from the excavations within the embankment. Based on the Economic Exclusion category presented in the California Geological Survey Guidelines for Classification and Designation of Mineral Lands, the material from these borrow areas are not considered minerals of state-wide importance and would not affect future mining of mineral resources. Excavated materials would be directly used for dam reconstruction and would not be sold or distributed to other parties.

The fourth material required for project construction, Drain Rock, may be obtained from the on-site silica-carbonate quarry, but additional investigations are needed to determine if this area is suitable for production of Drain Rock. Approximately 15,000 cy of Drain Rock, may be required for the Project. Currently, it is expected that this material would come from an off-site quarry. The amount of off-site Drain Rock material needed for construction of the proposed Project is anticipated to be relatively small and within the capacity of existing quarries.

In conclusion, Project activities would primarily rely upon mineral resources found on site. No important mineral resources are present within the Project footprint that would become unavailable as a result of the Project, nor would the Project use a substantial amount of mineral resources from offsite or involve other activities that would adversely affect future mining in the County. There would be no impact on mineral resources of local or state-wide importance.

XII. NOISE: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels without the project?	X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X

Environmental Setting

Surrounding land uses include single-family residential, agricultural, a juvenile correctional facility, and recreational uses. Residential homes and recreational trails along the southwestern bank of the reservoir and in the south area of the dam are within the City of Morgan Hill. The juvenile correctional facility is located on unincorporated county land. Recreational use in the county park along the northwestern bank and the northern dam area is within the City of San Jose. The project area borders the Anderson Lake County Park, which includes hiking trails and boating activities within the project area. There are no substantial noise sources within the project area and the existing noise environment is dominated by natural sounds and light traffic on Cochrane Road. The District will prepare a noise and vibration analysis, the findings of which will be presented in the EIR.

Explanations

a) Potentially Significant Issue. The proposed Project involves construction of seismic retrofits to the Anderson Dam, including excavating portions of both the upstream and downstream slopes of the dam, removing potentially liquefiable fill and alluvium exposed in the excavations, replacing the excavated material with compacted rockfill, and constructing buttresses on both sides of the dam. Each phase of the project construction would generate noise from the operation of heavy equipment and supporting stationary equipment, such as generators and materials screening equipment, as well as noise from blasting which is

anticipated to occur one or two times per week. This issue will be evaluated further in the EIR, based on the results of the noise and vibration analysis described above and applicable noise standards.

b) Potentially Significant Issue. Heavy equipment would be used during construction of the proposed Project that could expose people to groundborne vibration and groundborne noise levels. The noise and vibration analysis will determine the potential impacts related to these issues. The EIR will evaluate the issue further, utilizing the conclusions of that analysis.

c) Less Than Significant Impact. Operation of the proposed Project would involve occasional maintenance activities, functional use of the spillway and intake and outlet structures, and possible operation of pumps and other equipment. Noise associated with these activities is currently occurring, and it is not expected that there would be any increase in noise levels over existing conditions. This impact is considered less than significant.

d) Potentially Significant Issue. During construction, there would be a temporary noise increase from the use of heavy equipment and blasting. The District would require the contractor to comply with all applicable noise and occupational safety standards as defined in the construction specifications, and to protect workers and other persons from the health effects of increased noise levels from the use of construction equipment. The EIR will evaluate this issue further in the EIR.

e) No Impact. The project is not located within an airport land use plan and there are no public airports or public use airports within two miles of the project. The nearest public or public use airport is the San Martin Airport, approximately five miles south of the project area. There would be no impact.

f) No Impact. There are no known private airstrips within two miles of the project area. There would be no impact.

XIII. POPULATION AND HOUSING: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Induce substantial growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?		X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?		X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?		X	

Explanations

a) Less than Significant. The proposed Project includes construction activities necessary to retrofit the Anderson Dam. Construction workers would be temporarily employed at the Project site, and these jobs would generally be anticipated to be filled by the local work

force. No new long-term employment opportunities, or substantial population growth, would result from construction activities.

There would be no change in reservoir operations causing an increase in employment opportunities that could lead to population growth. Furthermore, the proposed Project would not increase the capacity of the reservoir or involve any other actions that could lead to an increased water supply that could induce population growth.

b, c) Less than Significant. Table 2 identifies properties that may be directly affected by the Project. The 12.3-acre 2290 Cochrane Road property (APN 728-34-010) and 1.1-acre 2390 Cochrane Road property (APN 728-34-011) contain single-family housing. Depending on final design, downstream embankment construction and Cochrane Road realignment could require the removal of one single-family residential home on the 2390 Cochrane Road property. Additional structures including housing on the 2290 Cochrane Road property may also be temporarily affected by construction activities. Feasible measures, including limiting the staging and construction area extents to the minimum needed to construct the Project, would be incorporated into Project design to avoid displacement of people or housing.

Should the Project require displacement of people or housing, occupants of affected structures would be relocated consistent with District Relocation Assistance Program procedures (Quality Environmental Management System Work Instruction W630D08, SCVWD 2013b) and applicable Uniform Relocation Assistance and Real Properties Acquisition Policies Act requirements (49 CFR Part 24). Relocation assistance procedures include confirmation that adequate replacement housing is available prior to displacement. Compliance with District and legal requirements would ensure that relocation of occupants of homes acquired for the Project would not be considered a substantial displacement of housing or people. Relocation for residents would not require construction of new housing elsewhere; therefore, this is a less than significant impact.

XIV. PUBLIC SERVICES: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Fire protection?			X
b) Police protection?			X
c) Schools?			X
d) Parks?			X
e) Other public facilities?			X

Environmental Setting

The project site is located within the cities of Morgan Hill and San José and an unincorporated area of Santa Clara County, and is within the jurisdiction of the Santa Clara County's Sheriff's Department and Fire Protection District. The project site is within the Morgan Hill Unified School District.

Explanations

a, b) No Impact. Completion of the Project would not contribute to an increased need for fire or police protection services, since the proposed Project would not contribute to population growth or other long-term land use modifications.

c) No Impact. The nearest school is Live Oak High School, which is located 1.7 miles southwest of the project area at 1505 E. Main Avenue, Morgan Hill. The Project would not impact existing school facilities, nor would it contribute to any change in population, or other land use modifications that would impact the local school district. Therefore, there are no impacts associated with the need to expand any school facilities.

d) Not Applicable. Effects associated with the County Park are discussed in Section XV, *Recreation*.

e) No Impact. The county-operated William F. James Boys Ranch juvenile detention facility is located 0.1 mile west of the proposed Chert Hill borrow area. A large concentration of youth is housed there year round. The proposed Project would have no impact on the public services of the facility. Completion of the proposed Project would not contribute to an increased need for other government facilities, since the proposed activity would not contribute to population growth or other long-term land use modifications.

XV. RECREATION: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	X		
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		X	

Environmental Setting

The Anderson Lake County Park encompasses the reservoir and includes recreational amenities such as the Coyote Creek Parkway multiple use trails, the Jackson Ranch Historic Park site, the Moses L. Rosendin Park, and the Burnett Park area. The trails within Anderson Lake County Park follow Coyote Creek and offer views of wildlife and riparian habitat. Shoreline picnic and barbecue facilities are provided at the Woodchopper's picnic area, which can be accessed by boat or vehicle at the south end of the lake. Additional picnic areas and four parking lots are located along Coyote Creek below Anderson Dam.

Hikers, runners, bicyclists, and skaters use the 15-mile multiple use paved trail which follows Coyote Creek north to Coyote Hellyer County Park. This asphalt path is relatively flat and meanders along the creek underneath oak, cottonwood, and sycamores trees. An equestrian staging area with trailer parking, picnic facilities, and a horse trough heads the 8-mile horse trail which begins at Burnett Avenue and runs north along Coyote Creek generally parallel to the paved trail. A one mile nature trail is also located along Coyote Creek between Malaguerra and Burnett Avenues (County of Santa Clara 2013b).

Water-based recreational uses at Anderson Reservoir include power and non-power boating, and jet skiing. The boating capacity for Anderson Reservoir is determined by the amount of surface acres of water. The ratio used by the Santa Clara County Parks Department is 1 vessel to every 6 surface acres. As the water level decreases, so does the capacity of vessels allowed on the water. The boat ramp is closed if the ramp stops short of the water line, as occasionally happens during periods of lower than normal inflows to the reservoir. Additionally, a total daily launch limit is established by the District based on water quality testing. The average daily launch limit at Anderson Reservoir is 170 vessels (County of Santa Clara 2013c).

Fishing is a popular activity at Anderson Reservoir, where fishing is permitted year-round. Downstream of Anderson Dam, fishing is permitted in Coyote Creek from April to November (County of Santa Clara 2013b).

Explanations

a) Potentially Significant Issue.

Land-Based Recreation
Portions of the County park would be utilized for temporary staging of construction equipment, thereby limiting public parking in those areas for nearly three years. Some trail access and picnicking areas would be temporarily closed for public safety during construction (See **Figure 6**). When possible, the closures would be phased so that some areas could remain open for land-based recreation during construction. It is expected that some park users would seek recreation at neighboring facilities. This will be further examined in the EIR.

Following construction of the proposed Project, all park facilities within the active area would be restored to their previous condition, providing the same level of access to recreationists as prior to project construction. Physical impacts to hiking and picnicking facilities caused by the project would be less than significant.

Water-Based Recreation
During Project construction, low water levels would prohibit boating in the reservoir for as long as three years. Upon completion of the Project, boating facilities would be reopened and returned to full use. Physical impacts to the boating facilities at Anderson Reservoir caused by the Project would be less than significant. During the temporary reservoir closure, there is potential for nearby reservoirs to receive increased recreational usage. Within the County, Calero and Coyote Reservoirs offer alternative power boating opportunities, and Lexington and Stevens Creek reservoirs offer alternative non-powered boating opportunities. It is anticipated the balance of open water recreational areas in the region would accommodate the demand for boating throughout the reservoir restriction. The potential for adverse affects to the physical environment resulting from increased usage of other boating destinations will be examined in the EIR.

During construction, fishing activities would be restricted within the Project area. The downstream park area west of Coyote Creek would continue to be available for fishing as allowed by California Fish and Game Code. While flows in Coyote Creek would remain consistent with existing conditions, the Anderson Reservoir fishery would be affected by dewatering for construction as described in the Section IV, *Biology*. Anderson Reservoir is one of ten reservoirs managed by the District that offer sport-fishing opportunities. It is anticipated the balance of fishing areas in the region would accommodate the demand for reservoir fishing throughout the construction period avoiding any significant adverse affects. The temporary loss of a reservoir fishery will be examined in the EIR.

b) Less than Significant. Construction would involve temporary closure or alteration of some recreational facilities, including trail access, picnic areas, bathroom facilities, and parking spaces. Following construction of the proposed Project, all park facilities within the project area would be restored to their previous condition. The present quantity and quality of recreational facilities, including parking spaces, would be restored. The proposed Project would not increase demand for recreational facilities in the project area. Therefore, no expansion of recreational facilities would result due to the proposed Project. This would be a less than significant impact.

XVI. TRANSPORTATION/TRAFFIC: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	X		
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X	
e) Result in inadequate emergency access?	X		
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	X		

Environmental Setting

The project area is within the City of Morgan Hill and would be subject to adopted policies and plans related to transportation and traffic. Level of Service (LOS) is a way of measuring how well a road is operating, based on average control delay per vehicle, and in some analyses based on the ratio of the volume of traffic to the capacity of the road. LOS A is a free flowing condition and LOS F is extreme congestion, with traffic volumes at or over capacity. The LOS policies of the City of Morgan Hill are designed to reduce the incentive for regional travel to be drawn off the freeway and onto local streets, protect neighborhoods, promote a vital downtown, and focus transportation expenditures on priority improvements offering high performance value (City of Morgan Hill 2010). The City's circulation policy is intended to ensure that traffic does not spill over into residential neighborhoods onto streets which are not designed to accommodate sub-regional and regional traffic; as such spillover would create safety and livability issues for local residents. The City's roadway system has been planned to accommodate all travel demands and avoid spillover traffic in neighborhoods. The planned city circulation system is designed to operate at LOS D for most intersections and roadway

segments, except LOS F is acceptable on downtown streets and LOS E is acceptable for certain intersections, freeway ramps/zones, and segments (City of Morgan Hill 2010).

Roadways of particular relevance for the Project include roadways that would be used during Project construction, roadways used as transportation routes to and from the project site, and roadways that would be directly modified as part of the Project. Vehicle use resulting from the proposed Project would primarily occur on Cochrane Road and US-101. The Circulation Element of the Morgan Hill General Plan (2010) designates Cochrane Road as a 6-lane major arterial with no on-street parking from Monterey Road east across US-101 to Mission View Road, with four lanes from there east to Peet Road. In 2003, US-101 was widened from two to four lanes in each direction north of Cochrane Road, and from two to three lanes in each direction south of Cochrane Road. The widening has substantially eased congestion on local Morgan Hill roads from regional traffic.

Explanations

a, b, f) Potentially Significant Issue. The proposed Project would not conflict with or prevent implementation of adopted plans, policies, or programs related to performance of circulation systems or programs supporting alternative transportation. There are no public transit services that would be impacted in the project vicinity. Existing bicycle lanes on Cochrane Road would not be permanently removed or altered as part of the project.

Construction activities would result in an increase in traffic in the Project area which could exceed the capacity of some segments in the road network. Initial mobilization of the proposed Project and import of materials from off-site locations would result in heavy vehicles and equipment accessing the project site via Cochrane Road, which provides access to residential neighborhoods. Construction personnel, equipment, and materials would travel to the site via US-101, Cochrane Road, and Coyote Road. Cochrane Road would be temporarily closed to through traffic or detours would be implemented from San Rafael Street to approximately 100 feet south of the dam access road during construction (including during construction mobilization and demobilization). No project parking or staging activities would be established on residential streets; all construction contractor parking would be located within the project site. Residential access would be maintained; however, public through traffic would not be permitted to travel on this segment.

Public bicycle and pedestrian traffic would not be permitted to travel on the temporarily closed segment of Cochrane Road. Alternative bicycle and pedestrian routes would be provided as part of the construction traffic management plan. Bicycle and pedestrian traffic would likely shift to Peet Road and Half Road.

Traffic patterns would return to existing conditions upon project completion. There would be no permanent changes to the level of service standards, travel demands, or congestion after project construction. However, the transportation effects during project construction (lasting approximately three years) would constitute a potentially significant issue that will be evaluated further in the EIR.

c) No Impact. The project would not affect existing air traffic patterns during construction. There would be no change in air traffic patterns or air safety risks.

d) Less than Significant. Cochrane Road currently makes a sharp turn at the base of the dam, near the entrance to Anderson Lake County Park. The current road alignment is unsafe at high speeds and visibility is low due the sharpness of the curve and dense

roadside vegetation. If the reconstructed dam face extends into Cochrane Road, the road would be realigned (See **Figure 3**). The reconstructed portion of Cochrane Road would provide at least the same traffic capacity as the existing section, and would likely result in a safer curve with improved lines of sight compared to existing conditions. This is considered a less than significant impact.

e) Potentially Significant Issue. Initial mobilization of the proposed Project and import of project materials from off-site locations would result in heavy vehicles and equipment accessing the project site via Cochrane Road, which provides access to residential neighborhoods. The presence of large, slow-moving equipment among the general-purpose traffic on roadways in the project area could result in temporary safety hazards.

Temporary lane closures or detours on Cochrane Road during construction could have the potential to interfere with implementation of City and County emergency response or emergency evacuation plans, including access for emergency providers (police and fire). The District will analyze potential impacts to emergency response times and evacuation plans in a traffic study. The results of the traffic study will be presented in the EIR.

XVII. UTILITES AND SERVICE SYSTEMS: Would the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X		
g) Comply with federal, state, and local statutes and regulations related to solid waste?	X		

Environmental Setting

The District manages an integrated water resources system that includes the supply of clean, safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 1.8 million residents (SCVWD 2013a). The District manages 10 dams and surface water reservoirs, three water treatment plants, and more than 275 miles of streams (SCVWD 2013a).

Anderson Dam was completed in 1950 and retains approximately 90,373 acre-feet of water at its maximum reservoir operating elevation. Water stored in Anderson Reservoir comes from within the watershed, specifically from the Coyote Reservoir and other influent sources, as well as from the CVP through USBR's San Felipe Division. Anderson Reservoir is the District's primary raw water supply alternative to the CVP supply.

Public restroom facilities are located in several locations in Anderson Lake County Park. Wastewater in the Project Area is treated at the South County Regional Wastewater Authority's (SCRWA) Treatment Plant located in the City of Gilroy.

Anderson Dam includes a hydroelectric generation plant located approximately 1,300 feet downstream of the dam. This plant would likely remain operational throughout project construction.

Non-District-owned utilities above or below ground may be present within the project site and would have to be relocated; a detailed survey for locations of existing utilities would be completed prior to construction.

Explanations

a, b, d, e) No Impact. During Project construction, portable toilets would be provided at the construction site and wastewater generated from construction employees would be disposed of at the SCRWA wastewater treatment plant. The Project would comply with all state, RWCQB and local requirements related to the disposal of sewage, and daily wastewater generated at the construction site would not exceed wastewater treatment requirements. Additionally, the Project would not result in any changes to the restrooms at Anderson Lake County Park and would not result in the generation of additional wastewater requiring treatment and disposal. No new or expanded water supply facilities would result from the proposed Project.

After construction, the Project would improve the safety, reliability, and flexibility of the District's water supply by improving dam seismic stability. The Project would not affect the District's diversion capacity, water rights, or hydropower generation capacity. Therefore, the Project would not increase water supply demand or require new or expanded water supply entitlements.

The project has no impacts associated with wastewater treatment requirements, no impact on new water or wastewater facilities, no impact on water entitlements, and no impact on wastewater treatment demands.

c) Less than Significant Impact. Onsite storm drainage facilities in the project area address runoff from paved areas like the parking lots and access roads. These areas would be restored to existing conditions and would not be expanded. See Sections VI, *Geology and Soils* and IX, *Hydrology and Water Quality* for further discussion of potential stormwater drainage impacts during and after project construction. This is considered a less than significant impact.

f, g) Potentially Significant Issues. Construction of the Project would produce solid waste associated with the various construction activities. Excavation at the embankments would result in waste rockfill that would require permanent disposal. Three disposal sites have been identified to receive excess spoils: Boat ramp, Chert Hill, and Silica-Carbonate Hill (See **Figure 5**). Overburden material may also be used for haul road development and for the dam crest raise. Spoils disposed in these locations would remain permanently. As necessary, these sites would be treated with erosion controls and vegetated upon project completion.

Waste generated from site demolition and modifications would include concrete rubble, asphalt, and building components from the demolition of inlet/outlet facilities, portions of the spillway, curb and asphalt at the parking lots and site roadways, the park entrance kiosk and relocated restroom facilities. The majority of waste generated from site demolition and modifications would be recycled at a concrete or asphalt batching facility. Additional solid waste generated from construction and contractor activities that cannot be recycled would be transported to a permitted solid waste facility. The generated waste is likely to be relatively small, but has not been quantified, nor has a solid waste facility been identified at this time. Therefore, the potential exists that waste generated by the Project could cause the solid waste facility to exceed the maximum daily disposal limits. Project operations would not generate new solid waste. Impacts on solid waste disposal during construction could be significant and will therefore be evaluated further in the EIR.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE: Does the project:	Potentially Significant Issues	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)	X		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X		

Explanations

a) Potentially Significant Issues. Construction activities of the proposed Project could potentially have significant impacts on aesthetics, agricultural and forestry resources, air quality, biological resources including special-status plant and animal species, cultural and

historical resources, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use/planning, noise, recreation, transportation/traffic, and utilities. These issues will be evaluated in the Project EIR.

b) Potentially Significant Issues. As defined by the State of California, cumulative impacts reflect "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, § 15355[b]).

The degree to which project effects would contribute to a significant cumulative impact will be evaluated in the EIR. To meet the adequacy standard established by the CEQA Guidelines section 15130, the EIR will identify past, present, and reasonably probable future projects producing related or cumulative impacts. Other projects or plans in the geographic scope of the proposed Project may include projects in the Coyote Creek watershed and larger Santa Clara Valley.

c) Potentially Significant Issues. Construction activities of the proposed Project could have potential for adverse direct impacts on people due to impacts such as air pollutant and GHGs. After completion, the proposed Project would substantially benefit people through providing increased protection against flooding impacts. This topic will be evaluated in the EIR.

C. DETERMINATION

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

X I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed Project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.

Kurt Lueneburger

Signature

8/12/13

Date

Kurt Lueneburger
Environmental Planner

Santa Clara Valley Water District

D. LIST OF INITIAL STUDY PREPARERS

Santa Clara Valley Water District

Terri Anderson	Engineering Unit Manager
Emmanuel Aryee	Project Manager
Debra Caldon	Environmental Services Manager
Kurt Lueneburger	Environmental Planner
Janell Hillman	Botanist
Jae Abel	Biologist

Schaaf & Wheeler Consulting Civil Engineers

M. Eliza McNulty	Project Management

HDR Engineering

Sergio Jimenez	Planning Phase Project Manager
Betty Dehoney	Permitting and environmental documentation review
Linda Fisher	Aesthetics, Agriculture/Forestry, Hazards, Public Services, Utilities
Dustin Watson	Air Quality, Greenhouse Gas Emissions, Noise
Daniel Kramer	Geology/Soils, Minerals, Paleontology
Adrian Pitts	Biological Resources-Fisheries
Jelica Arsenijevic	Biological Resources-Fisheries

Horizon Water and Environment

Michael Stevenson	CEQA oversight
Jill Sunahara	Project Description, Hydrology/Water Quality, Land Use, Population/Housing
Pam Rittelmeyer	Recreation

H.T. Harvey & Associates

Steve Rottenborn	Biological Resources-Plants/Wildlife
Melissa Newman	Biological Resources-Plants/Wildlife

Far Western Anthropological Research Group

Pat Mikkelsen	Cultural Resources

JRP Historical Consulting

Chris McMorris	Cultural Resources

Fehr & Peers

Katy Cole	Traffic/Transportation

E. REFERENCES

AMEC Geomatrix. 2009. Technical Memorandum No. 6, Phase 1 Fault Rupture Hazard Evaluation. September 14. Unpublished.

AMEC Geomatrix, 2011, Seismic Stability Evaluation Report (SSE-1A), Seismic Stability Evaluation of Anderson Dam, June 22.

Bay Area Air Quality Management District (BAAQMD). 2012. Air Quality Standards and Attainment Status. Available: http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. Accessed June 20, 2013.

Brabb, E.E. and A. Blondeau. 1983. Large Foraminifers of Eocene age from the Coast Ranges of California. In: E.E. Brabb (ed.), pp. 41-48. Studies in Tertiary Stratigraphy of the California Coast Ranges. USGS Geological Survey Professional Paper 1213. Available: http://pubs.usgs.gov/pp/1213/report.pdf. Accessed: May 28, 2013.

Buchan and Randall. 2003. Assessment of Stream Ecosystem Functions for the Coyote Creek Watershed. Coyote Creek Watershed Integrated Pilot Assessment. Final Report. May. Prepared for the Santa Clara Valley Urban Runoff Pollution Prevention Program.

Byrd, B. and J. Berg. 2006. Cultural Resources Investigations for the Santa Clara Valley Water District Dam Maintenance Program, Santa Clara County, California. Far Western Anthropological Research Group, Inc. October 2006.

Cal Fire. 2007. Santa Clara County FHSZ Map. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php; Accessed: May 10, 2013.

California Air Resources Board (CARB). 2008. Naturally-Occurring Asbestos—Publications & Maps. Available: http://www.arb.ca.gov/toxics/asbestos/geninfo.htm. Accessed: June 25, 2013.

California Climate Change Center. 2006. Our Changing Climate: Assessing the Risks to California. Prepared for the California Energy Commission. CEC-500-2006-077. Available: http://meteora.ucsd.edu/cap/pdffiles/CA_climate_Scenarios.pdf. Accessed: August 16, 2012.

California Department of Conservation (CDC). 2013. Farmland Mapping and Monitoring Program GIS data. Sacramento, CA. Available: http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx. Accessed: May 9, 2013.

California Department of Fish and Wildlife (CDFW). 2009. Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities. California Natural Resources Agency. November 24. Available: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/protocols_for_surveying_and_evaluating_impacts.pdf. Accessed: May 28, 2013.

California Department of Fish and Wildlife (CDFW). 2010. The Vegetation Classification and Mapping Program: Natural Communities List Arranged Alphabetically by Life Form. September. Available: http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf. Accessed May 29, 2013.

California Department of Fish and Wildlife (CDFW). 2013a. Fishing in the City. San Francisco Bay Area – Go Fish! Available: http://www.dfg.ca.gov/fishinginthecity/sf/gofish-southeast.html. Accessed: May 21, 2013.

California Department of Fish and Wildlife (CDFW). 2013b. Natural Community Conservation Planning (NCCP). Available: http://www.dfg.ca.gov/habcon/nccp/. Accessed: May 14, 2013.

California Department of Transportation (Caltrans). 2011. Officially Designated State Scenic Highways and Historic Parkways. Available: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. Accessed: May 14, 2013.

California Division of Mines and Geology. 1982. Page, B.M. 1982, The Calaveras Fault zone of California, an active plate boundary element, in Hart, E. W., ed., Conference on Earthquake Hazards in the Eastern San Francisco Bay Area: Proceedings: California Division of Mines and Geology Special Publication 62: 175-184.(276) C4spp no. 62. Available: http://ia701206.us.archive.org/29/items/specialpublicati62cali/specialpublicati62cali.pdf. Accessed: May 28, 2013.

California Geological Survey. 2004. Seismic Hazard Zone Report 096. Seismic Hazard Zone Report for the Morgan Hill 7.5 Minute Quadrangle, Santa Clara County, California. Available: http://gmw.consrv.ca.gov/shmp/download/evalrpt/morgh_eval.pdf. Accessed: May 28, 2013.

California Native Plant Society (CNPS). 2013. Inventory of Rare and Endangered Plants online edition, v7-09d. California Native Plant Society. Sacramento, California. Available: http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi. Accessed: April 29, 2013.

California Natural Diversity Data Base (CNDDB). 2013. Rarefind 4. California Department of Fish and Game, Biogeographic Data Branch. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed May 2013.

California State Mining and Geology Board. 2000. California Surface Mining and Reclamation Policies and Procedures with the Surface Mining and Reclamation Act of 1975. Third Revision. January.

City of Morgan Hill. 2012. General Plan Land Use Diagram. Adopted July 25, 2001. Revised February 29, 2012. Available: http://www.morgan-hill.ca.gov/DocumentCenter/Home/View/325 Accessed: May 20, 2013.

City of Morgan Hill. 2010. Morgan Hill General Plan. Adopted July 25, 2001. Revised February 2010. Available: http://www.morganhill.ca.gov/DocumentCenter/Home/View/1148. Accessed: June 25, 2013.

City of San Jose. 2010. Envision San Jose 2040 General Plan. Adopted November 1, 2011. Available: http://www.sanjoseca.gov/DocumentCenter/Home/View/474. Accessed: May 24, 2013.

County of Santa Clara. 1994. Santa Clara County General Plan: Charting a Course for Santa Clara County's Future: 1995-2010. Book B. Adopted December 20, 1994. Available: http://www.sccgov.org/sites/planning/PlansPrograms/GeneralPlan/Documents/GP_Book_B.pdf. Access: May 30, 2013.

County of Santa Clara. 2012. Santa Clara County Zoning Atlas. Revised July 26, 2012. Available: http://www.sccgov.org/sites/planning/GIS/Zoning/Documents/zoning_atlas.pdf. Accessed: May 7, 2013.

County of Santa Clara. 2013a. Roads and Airports Department. Available: http://www.sccgov.org/sites/rda/Airport%20Information%20and%20Commissions/Pages/Airport-Information-and-Commissions.aspx; Accessed: May 10, 2013.

County of Santa Clara. 2013b. Anderson Lake County Park. Available: http://www.sccgov.org/sites/parks/Maps%20Here/Pages/Anderson-Lake-County-Park.aspx. Accessed: May 10, 2013.

County of Santa Clara. 2013c. Santa Clara County Parks Boating Reservations: Frequently Asked Questions about Anderson Lake. Available: http://www.sccgov.org/sites/parks/Boat%20Here/Pages/Boating-Reservations.aspx. Accessed: May 13, 2013.

Coyle, John and Associates. 1988. Landslides and Landslide Activity, Anderson Reservoir, Santa Clara County, California. Prepared for the Santa Clara Valley Water District. September 30.

Dibblee, T .W., 1973, Regional geologic map of the San Andreas and related faults in Carrizo Plain, Temblor, Caliente, and La Panza ranges and vicinity, California: United States Geological Survey Miscellaneous Investigations Map I-757.Graymer, R.W., D.L. Jones, and E.E. Brabb. 1995. Geology of the Hayward fault zone. U.S. Geological Survey Open-File Report 95-597. Available: http://wrgis.wr.usgs.gov/open-file/of95-597/. Accessed: May 28, 2013.

Federal Energy Regulatory Commission, 2011, FERC Part 12 Report – Leroy Anderson Dam–FERC Project No. 5737-CA dated August 23, 2011.

HDR Engineering, Inc. 2013. Anderson Dam Seismic Retrofit Project Draft Review of Reservoir Drawdown Criteria Memorandum. May 2.

Hickman, James C. (ed.). 1993. The Jepson Manual. Berkeley, CA: University of California Press.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis: Summary for Policymakers. Available: http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the_physical_science_basis.htm. Accessed: April 1, 2013.

Iwamura, T.I. 1995. Hydrogeology of the Santa Clara and Coyote Valleys groundwater basins, California. In E.M. Sangines, D.W. Andersen, and A.B. Buisin (eds.). Recent geologic studies in the San Francisco Bay area. Pacific section S.E.P.M., Vol. 76, 173-191.

JRP Historical Consulting, LLC (JRP). 2006. Historical Resources Report: Santa Clara Valley Water District Dams. Prepared for Santa Clara Valley Water District. Confidential Information.

Johnston, D. Biologist. H.T. Harvey and Associates. Los Gatos, CA. June 21, 2013-phone conversation with Steve Rottenborn of H.T. Harvey and Associates.

Leidy R.A., G.S. Becker, and B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (Oncorhynchus mykiss) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, CA. 275 pp. Available: http://www.cemar.org/pdf/wholedoc2.pdf. Accessed: June 25, 2013.

Meehan, R. L. 1988. Report on Observation and Evaluation of 1987 Landslide Activity at Anderson Reservoir. Prepared for the Santa Clara Valley water District. February.

Morgan Hill Unified School District. 2013. District Map. Available: http://www.mhu.k12.ca.us/About-MHUSD/District-Map/index.html; Accessed: May 10, 2013.

Natural Resource Conservation Service (NRCS). 1958. United States Department of Agriculture Soil Survey, Santa Clara Area, California.

Natural Resource Conservation Service (NRCS). 1974. United States Department of Agriculture Soil Survey, Santa Clara Area, Eastern Parts, California.

San Francisco Bay Regional Water Quality Control Board (RWQCB). 2011. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Amended December 31, 2011. Available: http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml. Accessed: April 2013.

Santa Clara Valley Habitat Plan (VHP). 2012. Final Santa Clara Valley Habitat Plan. Santa Clara County, California. Prepared by the City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August. http://www.scv-habitatplan.org

Santa Clara Valley Water District. 2004. Drinking Water Source Assessment, Local Reservoirs.

Santa Clara Valley Water District. 2011. Stream Maintenance Program Update 2012-2022. Final Subsequent Environmental Impact Report (PEIR). December.

Santa Clara Valley Water District. 2012a. Dam Maintenance Program Final Program Environmental Impact Report (PEIR). January. San Jose California.

Santa Clara Valley Water District. 2012b. Anderson Dam: They Built it for Us. We Need to Rebuild it for Them. Available: http://www.valleywater.org/uploadedFiles/Services/CleanReliableWater/WhereDoesYourWaterComeFrom/Reservoirs/Anderson_Dam/SHELL_Anderson%20Dam_091312_v6_OPTIMIZED-WEB(1).pdf?n=9753. Accessed: May 21, 2013.

Santa Clara Valley Water District. 2013a. Santa Clara Valley Water District. 2013. About – Santa Clara Valley Water District. Available: http://www.valleywater.org/about.aspx. Accessed: May 13, 2013.

Santa Clara Valley Water District. 2013b. Quality Environmental Management System Work Instruction W630D08 *Relocation Assistance Program (RAP) revision A*. March 25, 2013.

SCBWMI (Santa Clara Basin Watershed Management Initiative). 2001. Watershed Characteristics Report. *Watershed Management Plan, Volume One* (Unabridged). Santa Clara Basin Watershed Management Initiative. February 2001. http://www.valleywater.org/_WMI/Related_report/Wcr2003r.cfm. Accessed May 2006

Scott, J.B. 1976. Reconnaissance of Landslide Conditions at Anderson Reservoir, Santa Clara Valley Water District. January.

Sliter, W.V., K. McCougall, B.L. Murchey, and E.V. Kohnen. 1993. Mesozoic and Cenozoic microfossils from geologic units within the San Jose 1:100,000 quadrangle, California. USGS Open File Report 93-344. Available: http://pubs.usgs.gov/of/1993/0344/report.pdf. Accessed: May 29, 2013.

State Water Resources Control Board (SWRCB). 2011. California 2010 Integrated Clean Water Act Section 303(d) List of USEPA Approved Water Quality Limited Segments. Last posted November 1, 2011. Available: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. Accessed: May 9, 2013.

State Water Resources Control Board (SWRCB). 2013. Geotracker. Available: http://geotracker.waterboards.ca.gov/. Accessed: May 10, 2013.

United States Department of Agriculture, Natural Resource Conservation Service (USDA). 2013. Web Soil Survey. Available: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed: May 21, 2013.

United States Fish and Wildlife Service (USFWS). 1998. Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area. Portland, OR. 330 pp.

United States Fish and Wildlife Service (USFWS). 2013. Species Lists. Sacramento Fish and Wildlife Office. Available: http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm. Accessed: May 2013.

VHP *see* Santa Clara Valley Habitat Plan

Wahler Associates. 1988. Landslide Studies for Anderson Dam and Reservoir, Letter Report to Santa Clara Valley water District, September 30, 1988.

Wentworth, C.M., M.C. Blake Jr., R.J. McLaughlin, and R.W. Graymer. 1998. Preliminary geologic map of the San Jose 30 X 60-minute Quadrangle, California: A Digital Database. USGS Open-File Report 98-795. Available: http://pubs.usgs.gov/of/1998/of98-795/. Accessed: May 29, 2013.

F. APPENDIX

Table A-1. Special-Status Plant Species Known to Occur or Potentially Present, Their Status, Habitat Description, and Potential for Occurrence in the ADSRP Project site[1]

Name	Regulatory Status[2]	General Habitat Description[3]	Potential for Occurrence in the Project site
Federal or State-Endangered and Threatened Species			
Coyote ceanothus (Ceanothus ferrisiae)	FE, CNPS List 1B.1, VHP	Chaparral, coastal scrub, valley and foothill grassland on serpentinite	**Present.** Populations observed on both the northern and southern sides of Anderson Dam (occurrence #6) and at the Kirby Canyon landfill to the northwest (CNDDB 2013, SCVWD 2012a).
CNPS-listed Species			
Mt. Hamilton thistle (Cirsium fontinale var. campylon)	CNPS 1B.2, VHP	Chaparral, cismontane woodland, valley and foothill grassland in serpentinite seeps	**Present.** This species is present at the Anderson Dam (occurrence #6) in the drainage below the spillway in serpentine seeps (CNDDB 2013, SCVWD 2012a). Numerous (21) additional records occur on and adjacent to Coyote Ridge to the northwest of the Project site (CCH 2013, Corelli 2011).
San Francisco collinsia (Collinsia multicolor)	CNPS 1B.2	Closed-cone coniferous forest, coastal scrub, sometimes serpentinite	**Present.** Although this species is not known to occur on or immediately adjacent to Anderson Dam itself, a population (#24) is present on an eroding serpentine slope along the shoreline of Anderson Reservoir east/southeast of the dam (CNDDB 2013, SCVWD 2012b).
Smooth lessingia (Lessingia micradenia var. glabrata)	CNPS1B.2, VHP	Chaparral, cismontane woodland- on serpentinite, often roadsides	**Present.** This species has been recorded at the Anderson Dam on rocky, serpentine grassland (occurrence #6), primarily north and west of the spillway (CNDDB 2013, SCVWD 2012a). Numerous additional occurrences are known from Coyote Ridge to the northwest (CCH 2013, Corelli 2011).
Hall's bush-mallow (Malacothamnus hallii)	CNPS 1B.2	Chaparral, coastal scrub	**Present.** Occurrence #4 is mapped along Cochrane Road on the west side of Anderson Dam (CNDDB 2013). In addition, suitable habitat is present along Coyote Ridge, as there are four other records located in the area (CCH 2013).
Most beautiful jewel-flower (Streptanthus albidus ssp. peramoenus)	CNPS 1B.2, VHP	Chaparral, cismontane woodland, valley and foothill grassland in serpentinite	**Present.** A CNDDB record (#87) is located at Anderson Dam on a serpentine embankment, north of the spillway (CNDDB 2013); 13 plants were observed at this location during protocol-level surveys conducted for Dam Maintenance Program Final PEIR (SCVWD 2012a). Additional populations are documented along Coyote Ridge, on serpentine soils, to the northwest (CCH 2013).

Footnotes:

[1] The potential for occurrence is based on a desktop review and prior experience in the Project site, and is only a preliminary assessment. Final determinations for potential for occurrence will be made following completion of a Project footprint boundary and a field assessment of the Project site's potential to support special-status plants. At that time, additional special-status plant species not included in this table, will also be reviewed to determine whether impacts to any of those species need to be considered for CEQA/NEPA compliance purposes.

[2] Status:

Federal Status

FD: Delisted. Status to be monitored for 5 years

FE: Listed as endangered under the Endangered Species Act

FT: Listed as threatened under the Endangered Species Act

State Status

SE: Listed as endangered under the California Endangered Species Act

ST: Listed as threatened under the California Endangered Species Act

CNPS

1B: Rare, threatened, or endangered in California and elsewhere

2: Rare, threatened, or endangered in California, but more common elsewhere

0.1: Seriously endangered in California

0.2: Fairly endangered in California

0.3: Not very endangered in California

VHP Valley Habitat Plan Covered Species

[3] The terms used to describe the general habitat descriptions in this column include the CNPS habitat designations separated by a slash (/) from the terms describing natural communities and habitats in this existing conditions report (i.e., CNPS habitats/existing conditions habitats).

References:

California Native Plant Society (CNPS). 2013. Inventory of Rare and Endangered Plants (online edition, v7-09d). California Native Plant Society. Sacramento, California. Accessed 29 April 2013 from http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi.

California Natural Diversity Data Base (CNDDB). 2013. Rarefind 4. California Department of Fish and Game, Biogeographic Data Branch. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed through May 2013 (and other dates).

Consortium of California Herbaria (CCH). 2013. Regents of the University of California. http://ucjeps.berkeley.edu/consortium/. Accessed through May 2013 (and other dates).

Corelli, T. 2011. Checklist of the vascular plants of San Mateo and Santa Clara Counties, California. Santa Clara Valley Chapter of the California Native Plant Society.

Santa Clara Valley Water District (SCVWD). 2012a. Dam Maintenance Program. Final Program Environmental Impact Report (PEIR). SCH# 2007-0220-52). January 2012.

_____. 2012b. Status of Collinsia multicolor population at Anderson Dam shoreline. October 9, 2012.

Santa Clara Valley Habitat Plan (VHP). 2012. Final Santa Clara Valley Habitat Plan. Santa Clara County, California. Prepared by the City of Gilroy, City of Morgan Hill, City of San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August. http://www.scv-habitatplan.org

Table A-2. Special-Status Animal Species, Their Status, Habitat Description, and Potential for Occurrence in the ADSRP Project site[1]

Name	Regulatory Status	Habitat	Potential for Occurrence in the Project site
Federal or State Endangered, Threatened, or Candidate Species			
Bay checkerspot butterfly (Euphydryas editha bayensis)	FT, VHP	Native grasslands on serpentine soils. Larval host plants are *Plantago erecta* and/or *Castilleja* sp.	**Potentially Present.** Unlikely to occur on the immediate dam itself, but present on Coyote Ridge north of the dam, potentially extending into the Project site on the northern side of the dam. Four small isolated areas at the dam support populations of its larval host plant, dwarf plantain (*Plantago erecta*), but are considered unsuitable (SCVWD 2012). Designated critical habitat Unit 13 and extends southward along Coyote Ridge to the northern edge of the dam, possibly incorporating two potential borrow sites (Chert Hill and Silica-Carbonate Hill) and areas along the north side of the spillway.
Central California coast steelhead (Oncorhynchus mykiss)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	**Present.** Occurs in Coyote Creek immediately downstream of the dam, and in tributaries to Coyote Creek.
California tiger salamander (Ambystoma californiense)	FT, SE, VHP	Vernal or temporary pools in annual grasslands or open woodlands.	**Present.** Known to occur within the Project site. In 2001, one was observed on the roadway between the top of the parking lot and the dam (CNDDB occurrence No. 651, CNDDB 2013). In 2011, one was found during a routine pre-work biological inspection in a weep hole in the floor of the dam spillway (SCVWD 2012). A large seasonal pond (Rosendin Pond) 0.3 mile southeast of the dam is a known breeding pond. May also breed in and disperse from a small perennial pond outside of the Project site, approximately 230 feet southeast of the park entrance road off of Cochrane Road. Could occur as a dispersant or could use mammal burrows and crevices as refugia throughout the Project site.
California red-legged frog (Rana draytonii)	FT, CSSC, VHP	Streams, freshwater pools, and ponds with emergent or overhanging vegetation.	**Potentially Present.** Likely breeds in Rosendin Pond, 0.3 mile southeast of the dam, based on multi-year observation of juveniles at the pond (Steve Rottenborn, pers. obs.). May also breed in and disperse from perennial ponds in the Project site below the spillway, as well as a small perennial pond, outside of the Project site, approximately 230 feet southeast of the park entrance road off of Cochrane Road. Could occur as a dispersant or could use mammal burrows and crevices as refugia throughout the Project site, though most likely to occur in aquatic habitat such as pools below the spillway.

Table A-2. Special-Status Animal Species, Their Status, Habitat Description, and Potential for Occurrence in the ADSRP Project site[1]

Name	Regulatory Status	Habitat	Potential for Occurrence in the Project site
Bald eagle (Haliaeetus leucocephalus)	SE, SP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers. Feeds mostly on fish.	**Present.** A single pair has nested in a gray pine (*Pinus sabiniana*) on the northeastern shore of Anderson Reservoir at least since 2010, and possibly in several prior years. Due to human activity, it is unlikely to nest within or immediately adjacent to the Project footprint at the dam. This pair forages throughout the Reservoir area, and additional birds forage here as well, particularly during the nonbreeding season.
California Species of Special Concern			
Central Valley fall-run Chinook salmon (Oncorhynchus tshawytscha)	FSC/CSSC	Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs.	**Potentially Present.** Chinook salmon have been observed in Coyote Creek since the mid-1980s and successful reproduction has been documented. Observations have been made that most Chinook salmon spawning occurs in the lowermost reaches of Coyote Creek, although adult Chinook salmon have been observed as far upstream as Metcalf Dam.
Sacramento splittail (Pogonichthys macrolepidotus)	CSSC	Estuarine river reaches.	**Potentially Present.** Buchan and Randall (2003) report splittail as absent from the upper Coyote Creek section. They also reported that splittail were last sampled in lower Coyote Creek between the 1987 and 2000 period. Other documents such as SCVWD (2008), report that splittail were first and last reported in Coyote Creek in 1904.
Western pond turtle (Actinemys marmorata)	CSSC, VHP	Permanent or nearly permanent water in a variety of habitats.	**Present.** Known occurrence (CNDDB No. 230) in Anderson Reservoir (CNDDB 2013). May also occur in the perennial ponds in the Project site below spillway, as well as a small perennial pond, outside of the Project site, approximately 230 feet southeast of the park entrance road off of Cochrane road. Away from these waterbodies, may occasionally disperse across upland portions of the Project site.
Loggerhead shrike (Lanius ludovicianus)	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	**Potentially Present.** Could possibly breed in the Project site, potentially using the annual grasslands on the dam face for foraging and nesting in trees or shrubs.
Yellow warbler (Dendroica petechia)	CSSC (nesting)	Nests in riparian woodlands.	**Potentially Present.** Could possibly breed in the riparian habitat along Coyote Creek downstream from the dam and below the spillway in the Project site.

Table A-2. Special-Status Animal Species, Their Status, Habitat Description, and Potential for Occurrence in the ADSRP Project site[1]

Name	Regulatory Status	Habitat	Potential for Occurrence in the Project site
Pallid bat (Antrozous pallidus)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	**Likely Present.** Known maternity colony, with up to 160 individuals, occurs in a barn southwest of Cochrane Road near the base of Anderson Dam. Individuals could potentially forage in the Project site in open areas. May also have roosts in the Project site in hollow trees or in crevices and cavities along rock faces, such as the rock outcrops on the northern side of the dam.
Western red bat (Lasiurus blossevillii)	CSSC	Roosts in foliage in forest or woodlands, especially in or near riparian habitat.	**Potentially Present.** May occur in low numbers as a migrant and winter resident, but does not breed in the Project site. May roost in foliage in trees virtually anywhere in the Project site, but expected to roost primarily in riparian areas.
San Francisco dusky-footed woodrat (Neotoma fuscipes annectens)	CSSC	Nests in a variety of habitats including riparian areas, oak woodlands, and scrub.	**Present.** Known to occur on the dam in the Project site (SCVWD 2012). May have additional scattered nests in woodland or scrub habitats in the Project site.
American badger (Taxidea taxus)	CSSC	Burrows in grasslands and occasionally in infrequently disked agricultural areas.	**Potentially Present.** May disperse through the Project site. Annual grasslands in the Project site provide only marginal quality habitat due to the rocky and hard-packed nature of soils on the dam face. Extensive grasslands with burrows are absent. However, badgers may occur in the Project site when moving between adjacent higher quality annual grasslands.
State Fully Protected Species			
American peregrine falcon (Falco peregrinus anatum)	SP	Forages in many habitats; nests on cliffs and tall bridges and buildings.	**Potentially Present.** May occasionally forage in the Project vicinity during the non-breeding season, though always at low densities. Not expected to breed in the Project site, which lacks suitable nesting habitat.
Golden eagle (Aquila chrysaetos)	SP	Breeds on cliffs or in large trees (rarely on electrical towers), forages in open areas.	**Potentially Present.** May occasionally occur as a forager, and could potentially nest in trees around the reservoir. However, there are no known nest sites in the Project site, and due to human activity, it is unlikely to nest within or immediately adjacent to the Project footprint at the dam.

Table A-2. Special-Status Animal Species, Their Status, Habitat Description, and Potential for Occurrence in the ADSRP Project site[1]

Name	Regulatory Status	Habitat	Potential for Occurrence in the Project site
White-tailed kite (Elanus leucurus)	SP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats.	**Likely Present**. May occur as forager and breeder. Trees in the Project site may be used for breeding, and the species may forage in open habitats throughout the Project site. Known to occur at Anderson Lake County Park near Rosendin Pond, immediately southeast of the Project site (Steve Rottenborn, pers. obs.). Up to two pairs may nest in or immediately adjacent to the Project site.
Ringtail (Bassariscus astutus)	SP	Cavities in rock outcrops and talus slopes, as well as hollows in trees, logs, and snags that occur in riparian habitats and dense woodlands, usually in close proximity to water.	**Potentially Present.** Rock outcrops on northern side of dam, as well as riparian and oak woodland habitats, may provide suitable foraging and denning habitat.
Other Special-Status Species[2]			
Pacific lamprey (Lampetra tridentata)	FSC	Spawns in gravel-bottomed streams or rivers upstream of riffle habitat. Adults forage in marine areas.	**Potentially Present.** Pacific lamprey are known to occur in Coyote Creek, and according to Buchan and Randall (2003), have been observed in both the upper and lower Coyote Creek.

Key to Abbreviations:
Status: Federally Threatened (FT); Federal Species of Concern (FSC); State Endangered (SE); State Fully Protected (SP); California Species of Special Concern (CSSC); Valley Habitat Plan Covered Species (VHP).

Footnotes:

[1] The potential for occurrence is based on a desktop review and prior experience in the Project site, and is only a preliminary assessment. Final determinations for potential for occurrence will be made following completion of a Project footprint boundary and a field assessment of the Project site's potential to support special-status plants. At that time, additional special-status plant species not included in this table, will also be reviewed to determine whether impacts to any of those species need to be considered for CEQA/NEPA compliance purposes.

[2] "Other special-status species" include the Pacific lamprey, for which the USFWS has expressed some conservation concern.

References:

Bousman W. G. 2007a. Swainson's Hawk, *Buteo swainsoni*. Pages 506-507 *in* W. G. Bousman, editor. *Breeding Bird Atlas of Santa Clara County*. Santa Clara Valley Audubon Society, Cupertino, California.

_____. 2007b. Long-Eared Owl, *Asio otus*. Pages 238-239 *in* W. G. Bousman, editor. *Breeding Bird Atlas of Santa Clara County*. Santa Clara Valley Audubon Society, Cupertino, California.

_____. 2007c. Olive-Sided Flycatcher, *Contopus cooperi*. Pages 272-273 *in* W. G. Bousman, editor. *Breeding Bird Atlas of Santa Clara County*. Santa Clara Valley Audubon Society, Cupertino, California.

California Natural Diversity Data Base (CNDDB). 2013. Rarefind 4. California Department of Fish and Game, Biogeographic Data Branch. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed through May 2013 (and other dates).

H. T. Harvey & Associates. 2007. Measure B Consolidated Biological Mitigation Project Year 3 Monitoring Report. Prepared for the Santa Clara Valley Transportation Authority.

Rottenborn, S. C. 200a. Bell's Vireo, *Vireo bellii*. Pages 290-291 in W. G. Bousman, editor. Breeding Bird Atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.

Rottenborn, S. C. 2007b. Savannah Sparrow, *Passerculus sandwichensis*. Pages 408-409 in W. G. Bousman, editor. *Breeding Bird Atlas of Santa Clara County*. Santa Clara Valley Audubon Society, Cupertino, California.

Santa Clara Valley Water District (SCVWD). 2012. Dam Maintenance Program. Final Program Environmental Impact Report (PEIR). SCH# 2007-0220-52). January 2012.

U.S. Fish and Wildlife Service (USFWS). 1998. *Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area*. Portland, Oregon. 330+ pp.