Hacienda and Deep Gulch Remediation Project
Almaden Quicksilver County Park

Final Initial Study/
Mitigated Negative Declaration
September 14, 2010

SCH# 2010072049

County of Santa Clara
Parks and Recreation Department
Los Gatos, CA

Prepared by
Sokale Environmental Planning
Newark, CA

Lynne Trulio, Wetlands & Wildlife Ecologist
Basin Research Associates
Cotton Shires and Associates
TRA Environmental
RESOLUTION NO. 2010-41
RESOLUTION OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF SANTA CLARA
MAKING CERTAIN FINDINGS, AND
ADOPTING A MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PLAN
FOR
THE HACIENDA AND DEEP GULCH REMEDIATION PROJECT

WHEREAS, the County of Santa Clara desires to approve the Hacienda and Deep Gulch Remediation Project ("Project") described in Exhibit A, as required by a Consent Decree approved by the Board of Supervisors May 24, 2005, which includes projects at the Hacienda Furnace Yard portion of Almaden Quicksilver County Park; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA"), the County prepared and circulated an Initial Study and Mitigated Negative Declaration, (collectively, "MND"), attached hereto as Exhibit B, for public comment between July 14, 2010 and August 13, 2010; and

WHEREAS, public comments, revisions and clarifications were addressed in the Mitigated Negative Declaration; and

WHEREAS, pursuant to the CEQA, a Mitigation Monitoring and Reporting Program (MMRP), was prepared for the Project and is attached hereto as Exhibit C; and

WHEREAS, the Mitigated Negative Declaration identified potential environmental impacts in the areas of Aesthetics, Agricultural and Forestry Resources, Air Quality, Biological Resources, Cultural/Historical/Archaeological Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use and Planning, Noise, and Transportation/Traffic but these impacts will be avoided or mitigated by the MMRP to less than significant levels; and

WHEREAS, the MND, and MMRP together constitute the Final MND for the Project; and

WHEREAS, at its regular meeting of September 14, 2010, the Board of Supervisors considered the Project, the Final MND and comments received prior to approving the Project; and

THEREFORE, THE BOARD OF SUPERVISORS HEREBY makes the following findings with respect to CEQA:

(1) That the Final MND was prepared in accordance with all legal requirements of CEQA, including all public notice and comment period requirements; and

(2) That the Board of Supervisors has considered the whole record before it, including the Final MND and all comments received; and

(3) That the Final MND identifies all potential environmental impacts of the Project, specifically to Aesthetics, Agricultural and Forestry Resources, Air Quality, Biological Resources, Cultural/Historical/Archaeological Resources, Geology/Soils, Hazards and Hazardous Materials,
Hydrology/Water Quality, Land Use and Planning, Noise, and Transportation/Traffic, which impacts can and will be avoided or mitigated to less than significant levels through adoption and implementation of the mitigation measures included in the MMRP; and

(5) That the Final MND reflects the County's independent judgment and analysis.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Santa Clara, State of California, that

1. The administrative record is located in the Office of the Clerk of the Board of Supervisors, at 70 W. Hedding Street, 10th Floor, East Wing, San Jose, California 95110; and in the County Parks and Recreation Department Administration Office at 298 Garden Hill Drive, Los Gatos, CA 95032; and

2. That the Final MND for the Project is adopted and the Project is hereby approved.

PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Clara, State of California on September 14, 2010 by the following vote:

AYES: COTTEEL, GAGE, KNISS, SHIRAKAWA, YERAGIR
NOES: None
ABSENT: None
ABSTAIN: None

[Signature]
Ken Yeager, President
Board of Supervisors

Signed and certified that a copy of this document has been delivered by electronic or other means to the President, Board of Supervisors.

ATTEST:

[Signature]
Maria Marinos, Clerk of the Board of Supervisors

APPROVED AS TO FORM AND LEGALITY:

[Signature]
Katherine Harasz, Deputy County Counsel

Exhibits to this Resolution:

A – Hacienda and Deep Gulch Remediation Project project description
B – Initial Study and Mitigated Negative Declaration for the Hacienda and Deep Gulch Remediation Project
C - Mitigation Monitoring and Reporting Plan for the Hacienda and Deep Gulch Remediation Project
Notice of Determination

To:  □ County Clerk
     County of Santa Clara
     [Address]
     [City, State, Zip]
     [Phone]

     ☑ Office of Planning & Research
     1400 Tenth St., Room 121
     Sacramento, CA 95814

Project Title
Hacienda and Deep Gulch Remediation Project

File
None

State Clearinghouse Number | County Contact Person       | Telephone Number
---------------------------|----------------------------|------------------
SCH 2010072049            | Antoinette Romeo, Mohamed Assaf, Project Manager | (408) 355 - 2235 (408) 355 - 2208

Project Location
Hacienda Furnace Yard area in Almaden Quicksilver County Park
21785 Almaden Road, San Jose CA 95196

APN (s)
583-20-004; 583-23-019

Project Description
The Hacienda and Deep Gulch Remediation Project (Project) is a mercury remediation and habitat restoration project in the Hacienda Furnace Yard Area of Almaden Quicksilver County Park (AQS County Park) and beneath the Alamitos Creek Bridge on Alamitos Road. AQS Park is a 3,977 acre park owned and operated by County of Santa Clara Parks and Recreation Department. Alamitos Creek Bridge is owned and maintained by County of Santa Clara Roads and Airports Department.

The Project includes the removal of remnant mining waste material, grading to create stable creek banks at Alamitos Creek and Deep Gulch areas, stabilizing and hydro-seeding all disturbed areas, and revegetation of the creek banks along Alamitos Creek and Deep Gulch within Almaden Quicksilver County Park.

A complete project description is contained in the Initial Study/Mitigated Negative Declaration available for review at the Administrative Offices of the Parks and Recreation Department and on the website at www.playhere.org

This is to advise that the Santa Clara County Board of Supervisors (decision maker) has adopted the above described project on September 14, 2010 and has made the following determinations regarding the project. The Negative Declaration and record of project approval may be examined at the Santa Clara County Department of Parks and Recreation.

1. The project: ☑ will have □ will not have a significant effect on the environment.

2. Monitoring Program: □ was ☑ was not adopted.

3. ☑ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
   Mitigation measures: □ have ☑ have not been made a condition of approval of the project.

4. □ An Environmental Impact Report has been prepared for this project pursuant to the provisions of CEQA.
   Mitigation measures: □ have ☑ have not been made a condition of approval of the project.
   A Statement of Overriding Considerations: □ was □ was not adopted for this project.
   □ Findings were made pursuant to Section 15091 of CEQA.

Signature: Antoinette Romeo
Date: 9/15/2010
Title: Planner III

File#: 16817 9/15/2010
CEQA DOCUMENT DECLARATION

ENVIRONMENTAL FILING FEE RECEIPT

PLEASE COMPLETE THE FOLLOWING:

1. LEAD AGENCY: County of Santa Clara

2. PROJECT TITLE: Hacienda and Deep Gulch Remediation Project

3. APPLICANT NAME: County of Santa Clara Parks and Recreation Department PHONE: (408) 355-2200

4. APPLICANT ADDRESS: 298 Garden Hill Drive, Los Gatos, CA 95032

5. PROJECT APPLICANT IS A: [ ] Local Public Agency [ ] School District [ ] Other Special District [ ] State Agency [ ] Private Entity

6. NOTICE TO BE POSTED FOR ___ 30 ___ DAYS.

7. CLASSIFICATION OF ENVIRONMENTAL DOCUMENT

   a. PROJECTS THAT ARE SUBJECT TO DFG FEES

   [ ] 1. ENVIRONMENTAL IMPACT REPORT (PUBLIC RESOURCES CODE §21152) $ 2,792.25 $ 0.00

   [ ] 2. NEGATIVE DECLARATION (PUBLIC RESOURCES CODE §21080(C) $ 2,010.25 $ 2,010.25

   [ ] 3. APPLICATION FEE WATER DIVERSION (STATE WATER RESOURCES CONTROL BOARD ONLY) $ 850.00 $ 0.00

   [ ] 4. PROJECTS SUBJECT TO CERTIFIED REGULATORY PROGRAMS $ 949.50 $ 0.00

   [ ] 5. COUNTY ADMINISTRATIVE FEE (REQUIRED FOR a-1 THROUGH a-4 ABOVE) $ 50.00 $ 50.00

   b. PROJECTS THAT ARE EXEMPT FROM DFG FEES

   [ ] 1. NOTICE OF EXEMPTION ($50.00 COUNTY ADMINISTRATIVE FEE REQUIRED) $ 50.00 $ 0.00

   [ ] 2. A COMPLETED “CEQA FILING FEE NO EFFECT DETERMINATION FORM” FROM THE DEPARTMENT OF FISH AND GAME, DOCUMENTING THE DFG’S DETERMINATION THAT THE PROJECT WILL HAVE NO EFFECT ON FISH, WILDLIFE AND HABITAT, OR AN OFFICIAL, DATED RECEIPT / PROOF OF PAYMENT SHOWING PREVIOUS PAYMENT OF THE DFG FILING FEE FOR THE SAME PROJECT IS ATTACHED ($50.00 COUNTY ADMINISTRATIVE FEE REQUIRED)

   DOCUMENT TYPE: [ ] ENVIRONMENTAL IMPACT REPORT [ ] NEGATIVE DECLARATION $ 50.00 $ 0.00

   c. NOTICES THAT ARE NOT SUBJECT TO DFG FEES OR COUNTY ADMINISTRATIVE FEES

   [ ] NOTICE OF PREPARATION [ ] NOTICE OF INTENT NO FEE $ ___ ___

8. OTHER: NO FEE (IF APPLICABLE): $ ___

9. TOTAL RECEIVED: $ 2,060.25

*NOTE: "SAME PROJECT" MEANS NO CHANGES. IF THE DOCUMENT SUBMITTED IS NOT THE SAME (OTHER THAN DATES), A "NO EFFECT DETERMINATION" LETTER FROM THE DEPARTMENT OF FISH AND GAME FOR THE SUBSEQUENT FILING OR THE APPROPRIATE FEES ARE REQUIRED.

THIS FORM MUST BE COMPLETED AND ATTACHED TO THE FRONT OF ALL CEQA DOCUMENTS LISTED ABOVE (INCLUDING COPIES) SUBMITTED FOR FILING. WE WILL NEED AN ORIGINAL (WET SIGNATURE) AND THREE COPIES. (YOUR ORIGINAL WILL BE RETURNED TO YOU AT THE TIME OF FILING.)

CHECKS FOR ALL FEES SHOULD BE MADE PAYABLE TO: SANTA CLARA COUNTY CLERK-RECORDER

PLEASE NOTE: FEES ARE ANNUALLY ADJUSTED (Fish & Game Code §711.4(b); PLEASE CHECK WITH THIS OFFICE AND THE DEPARTMENT OF FISH AND GAME FOR THE LATEST FEE INFORMATION.

"... NO PROJECT SHALL BE OPERATIVE, VESTED, OR FINAL, NOR SHALL LOCAL GOVERNMENT PERMITS FOR THE PROJECT BE VALID, UNTIL THE FILING FEES REQUIRED PURSUANT TO THIS SECTION ARE PAID." Fish & Game Code §711.4(c)(3)

12-22-2009 (FEES EFFECTIVE 01-01-2010)
Santa Clara County Clerk—Recorder
State of California

CEQA DOCUMENT DECLARATION

ENVIRONMENTAL FILING FEE RECEIPT

PLEASE COMPLETE THE FOLLOWING:

1. LEAD AGENCY: County of Santa Clara, Parks and Recreation Department

2. PROJECT TITLE: Hacienda and Deep Gulch Remediation Project

3. APPLICANT NAME: County of Santa Clara, Parks and Recreation Department PHONE: (408) 355-2200

4. APPLICANT ADDRESS: 298 Garden Hill Drive, Los Gatos, CA 95032

5. PROJECT APPLICANT IS A: [ ] Local Public Agency [ ] School District [ ] Other Special District [ ] State Agency [ ] Private Entity

6. NOTICE TO BE POSTED FOR ___30___ DAYS.

7. CLASSIFICATION OF ENVIRONMENTAL DOCUMENT

   a. PROJECTS THAT ARE SUBJECT TO DFG FEES

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      [ ] 3. APPLICATION FEE WATER DIVERSION (STATE WATeR RESOURCES CONTROL BOARD ONLY) $ 850.00 $ ___0.00___

      [ ] 4. PROJECTS SUBJECT TO CERTIFIED REGULATORY PROGRAMS $ 949.50 $ ___0.00___

      [ ] 5. COUNTY ADMINISTRATIVE FEE (REQUIRED FOR a-1 THROUGH a-4 ABOVE) Fish & Game Code §711.4(e) $ 50.00 $ ___0.00___

   b. PROJECTS THAT ARE EXEMPT FROM DFG FEES

      [ ] 1. NOTICE OF EXEMPTION ($50.00 COUNTY ADMINISTRATIVE FEE REQUIRED) $ 50.00 $ ___0.00___

      [ ] 2. A COMPLETED "CEQA FILING FEE NO EFFECT DETERMINATION FORM" FROM THE DEPARTMENT OF FISH & GAME, DOCUMENTING THE DFG'S DETERMINATION THAT THE PROJECT WILL HAVE NO EFFECT ON FISH, WILDLIFE AND HABITAT, OR AN OFFICIAL, DATED RECEIPT / PROOF OF PAYMENT SHOWING PREVIOUS PAYMENT OF THE DFG FILING FEE FOR THE SAME PROJECT IS ATTACHED ($50.00 COUNTY ADMINISTRATIVE FEE REQUIRED)

         DOCUMENT TYPE: [ ] ENVIRONMENTAL IMPACT REPORT [ ] NEGATIVE DECLARATION $ 50.00 $ ___0.00___

   c. NOTICES THAT ARE NOT SUBJECT TO DFG FEES OR COUNTY ADMINISTRATIVE FEES

      [ ] NOTICE OF PREPARATION [ ] NOTICE OF INTENT NO FEE $ ___0.00___

8. OTHER: ________________________________ FEE (IF APPLICABLE): $ ___0.00___

9. TOTAL RECEIVED: ________________________________ $ ___0.00___

*NOTE: "SAME PROJECT" MEANS NO CHANGES. IF THE DOCUMENT SUBMITTED IS NOT THE SAME (OTHER THAN DATES), A "NO EFFECT DETERMINATION" LETTER FROM THE DEPARTMENT OF FISH AND GAME FOR THE SUBSEQUENT FILING OR THE APPROPRIATE FEES ARE REQUIRED.

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CHECKS FOR ALL FEES SHOULD BE MADE PAYABLE TO: SANTA CLARA COUNTY CLERK-RECORDER

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12-23-2008 (FEES EFFECTIVE 01-01-2010)
Proposed Mitigated Negative Declaration

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.) that the following project when implemented will not have a significant impact on the environment.

File | APN(s) | Date
--- | --- | ---
None | 583-20-004 and 583-23-019 | 7/12/10

Project Name | Project Type
--- | ---
Hacienda and Deep Gulch Remediation Project | Mercury Remediation and Habitat Restoration

Owner | Applicant
--- | ---
County of Santa Clara | County of Santa Clara, Parks and Recreation Department

Project Location

Almaden Quicksilver County Park, 21785 Almaden Road, San Jose, CA 95196

Project Description (attach additional pages as necessary)

The project includes the removal of remnant mining waste material, grading to create stable creek banks at Alamitos Creek and Deep Gulch areas, stabilizing and hydroteening all disturbed areas, and revegetation of the creek banks along Alamitos Creek and Deep Gulch within Almaden Quicksilver County Park in Santa Clara County, CA.

Purpose of Notice

The purpose of this notice is to inform you that the County of Santa Clara Parks & Recreation Department Staff has recommended that a Mitigated Negative Declaration be adopted for this project. Action is tentatively scheduled on this proposed Mitigated Negative Declaration before the County of Santa Clara Board of Supervisors on September 14, 2010 in the Board Chambers, 70 W. Hedding, San Jose. It should be noted that the adoption of a Mitigated Negative Declaration does not constitute approval of the project under consideration. The decision to approve or deny the project will be made separately. Meeting information will be posted on the County of Santa Clara’s website at www.sccgov.org under Board Agendas or contact the Office of the Clerk of the Board at (408) 299-5001.

Review Period

The public review period for this document begins July 13, 2010 and ends August 12, 2010. Public comments regarding the correctness, completeness, or adequacy of this Mitigated Negative Declaration are invited. Such comments should be based on specific environmental concerns. Written comments must be received on or before the close of the public review period and should be addressed to the County of Santa Clara, Department of Parks and Recreation, Planning and Development Section, 298 Garden Hill Drive, Los Gatos, CA 95032, Tel (408) 355-2200, attention Mohamed Assaf, Senior Facilities Engineer. Oral comments may be made at the meeting. A file containing additional information on this project may be reviewed at the Department of Parks and Recreation. When requesting to view this file, please refer to the project title appearing at the top of this form.

Responsible Agencies sent copy of this document

U.S. Fish and Wildlife Service, California Regional Water Quality Control Board - San Francisco Bay Region, California Department of Fish and Game, California Department of Toxic Substance Control, Santa Clara Valley Water District, County of Santa Clara Planning Department, and County of Santa Clara Roads and Airports Department.
Basis for Negative Declaration Recommendation

The Planning and Development Section of the Department of Parks and Recreation has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that the proposed project could not have a significant effect on the environment, or although the proposed project could initially have a significant effect on the environment, there will not be a significant effect on the environment because of mitigation measures that have been incorporated into the project.

This finding is based on the following considerations (See Note below):  

Mitigation Measures included in this project to reduce potentially significant impacts to less than significant level include:

Aesthetics  
The permanent loss of up to 75 trees, including some large oaks along Mine Hill Trail next to Deep Gulch, will degrade the quality of the park site for visitors. Impact reduced to less than significant with BIO-8 and BIO-9 mitigation measures that require planting 3 native trees to each 1 removed and planting attractive native understory and ground cover species along the affected trail.

Air Quality  
Project activities would generate emissions consisting of exhaust emissions from construction equipment (e.g., ozone precursors, NOx and VOC, other criteria pollutants, such as CO and PM10, and toxic exhaust emissions) and dust from earthmoving activities and travel.

AIR-1 Measures:  
  a. Bay Area Air Quality Management District Basic Dust Control Measures (all construction sites)  
  b. Bay Area Air Quality Management District Enhanced Dust Control Measures (sites greater > 4 acres in size)  
     Bay Area Air Quality Management District Optional Dust Control Measures

Biological Resources  
BIO IMPACT 1. The project will temporarily or permanently remove an estimated 1.2 acres of habitat and could directly impact sensitive species including red-legged frog, steelhead, dusky-footed woodrats, bats, and/or nesting migratory birds and raptors.

BIO-1 Measures (General):  
  a. Implement an Employee and Contractor Education Program.  
  b. Implement Daily Monitoring to check the site each morning prior to construction activities for rare and sensitive species within the work area.  
  c. Vehicle speed limited 5 miles per hour within the construction area. If any animal is seen in the path of a vehicle, the vehicle shall stop until the animal is out of the path.

BIO IMPACT 2. Steelhead could be present in Alamitos Creek as adults or juveniles between April 15 and October 15 when this project will occur.

BIO-2 Measures (Steelhead):  
  a. Develop a dewatering and fish relocation plan in consultation with NMFS. Participate in a Section 7 consultation with the NMFS through the Army Corps of Engineers (Corps), if required. Implement all dewatering and fish protection measures required by agencies.  
  b. Implement BMPs from Santa Clara Valley Water District (District) 2005 BMP Handbook and Stream Maintenance Program during project.  
  c. Implement a Stormwater Pollution Prevention Plan (See HYD-1) for sediment impacts during construction.
d. Implement *Guidelines and Standards for Land Use Near Streams* for sediment impacts after construction (See HYD-2).

**BIO IMPACT 3.** Protected amphibians and reptile species that have the potential to occur on the project site include California red-legged frogs, western pond turtles, and silvery legless lizard.

**BIO-3 Measures** (Herptofauna):

a. Conduct pre-construction in the project area in order to detect sensitive herpetofauna and to coordinate with wildlife agencies.

b. 2. Conduct during project surveys to determine if any wildlife species are found within the project area and to implement species protections, if needed.

**BIO IMPACT 4.** The project will remove up to 75 trees and 51,000 SF of oak woodland and riparian vegetation. Birds and their nests in trees, tree cavities, and understory vegetation in riparian and oak woodlands could be destroyed. Regrading banks could destroy nests of bank nesting birds, especially kingfishers.

**BIO-4 Measures** (Nesting birds):

a. Remove vegetation and trees within the project area outside of the nesting season (February 1 to August 31), in advance of calcine removal activities.

b. For all trees and vegetation that remain after clearing, a qualified biologist shall conduct a pre-construction survey for nesting raptors and other birds, including kingfishers, approximately a month before and 3 days before construction begins. If active nests are detected, a qualified biologist shall determine the appropriate buffer around the nest and will monitor the nest until the fledging or until it has been determined to be inactive.

c. To mitigate for the loss of riparian and oak woodland habitat, an area equivalent in size to the area degraded will be revegetated with native species, maintained and monitored for success (See BIO-8 and BIO-9).

**BIO IMPACT 5.** Maternal or day-time bat roosts could occur in trees in the project area.

**BIO-5 Measures** (Bats):

a. Conduct a survey for bats and their roosts prior to any construction or large tree removal. A pre-construction maternity roost survey the summer before construction is highly recommended.

b. If a roost is found, the roost shall be avoided as determined by a qualified biologist in conjunction with wildlife agency guidance. Measures may include delaying work until young are flying, implementing a buffer zone, or excluding animals from the roost (not applicable to maternal roosts with young).

**BIO IMPACT 6.** Woodrat houses have been found in the project area, in moderately-dense to dense riparian habitats. An estimated 32,000 SF of riparian habitats will be removed; any woodrats or their houses located in the impacted riparian zone could be harmed or destroyed.

**BIO-6 Measures** (Woodrats):

a. Conduct a pre-construction survey for San Francisco dusky-footed woodrat houses.

b. If any are detected, implement avoidance/minimization measures as required by the wildlife agencies potentially including a buffer zone or capturing animals and relocated them to a near by artificial house.

**BIO IMPACT 7.** The Loma Prieta hoita, a special status plant (CNPS List 1B), could occur in the project area. This plant was found growing on calcine deposits at the Jacques Gulch Restoration Project.

**BIO-7 Measures** (Loma Prieta hoita):

Conduct a pre-construction survey for the plant during a season when plants are most obvious. If any are found, develop and implement a transplanting and monitoring plan acceptable to CDFG.

**BIO IMPACT 8.** Calcine access and removal will result in the loss of, at most, 75 trees with diameters greater than 6 inches in foothill oak and foothill riparian woodlands; 23 are oaks and some are old, very mature trees.
BIO-8 Measures (Oaks and Large Trees):
   a. A certified arborist will be on-site during all construction phases during which trees are affected to make
decisions, in consultation with the Project Manager, on tree pruning, removal, and preservation. Whenever
possible, mature trees will be preserved while still achieving the calcine removal goals of the project.
b. Develop an oak community revegetation plan with success criteria, monitoring and contingency measures,
which will require:
   i. replacing removed trees on a 3:1 basis with trees of the same species.
   ii. planting and maintaining a palette of understory and ground cover species native to oak woodlands,
covering an area not less than equal to the size of the area impacted (a total of approximately 19,000 SF of
foothill oak woodlands).

BIO IMPACT 9. Calcine removal and access to the calcine deposits will result in the loss or degradation of
approximately 76,000 SF of habitat. An estimated 32,000 SF (~0.74 acres) of this is foothill riparian community,
which will be mitigated with measures in BIO-9. Approximately 19,000 SF (0.44 acres) is foothill oak woodland
community, whose impacts are mitigated with BIO-8 measures.

BIO-9 Measures (Foothill Riparian Community):
   a. Protect all riparian vegetation outside the construction area from any direct or indirect impacts of construction.
b. Develop a Riparian Mitigation and Monitoring Plan as part of the Streambed Alteration Agreement. The plan
will mitigate tree loss on a 3:1 basis and will restore the riparian understory and ground cover on at least a 1:1
area (SF) basis. The plan will be developed by a qualified biologist and must be approved by the CDFG.

BIO IMPACT 10. The project will also temporarily impact 500 SF of freshwater wetland due to grading in Alamitos
Creek and Deep Gulch.

BIO-10 Measures:
   a. If possible, create a bench at AC-2 to allow at least 500 SF of wetlands to restore in this new area.
b. Ensure that the cross-sectional area of Alamitos Creek and Deep Gulch are not reduced from pre-project
conditions, allowing natural wetland restoration in areas of disturbance.

BIO IMPACT 11. Steelhead will temporarily be prevented from moving thorough the stream during the dewatering
period which will last up to 12 weeks. Impacts to steelhead are reduced to less than significant with BIO-2 measures.

BIO IMPACT 12. Impacts to natural communities on site, including oak woodlands, riparian woodlands, freshwater
wetlands, and aquatic habitats are given above in Questions 2, 3 and 4. BIO-8 and BIO-9, and BIO-10 mitigation
measures will reduce these impacts to less than significant.

BIO IMPACT 13. Impacts to oak woodland communities may occur as a result of Sudden Oak Death (SOD)
introduction to AQS County Park or may impact other areas if SOD were to establish in AQS County Park and be
transported offsite by construction equipment. Mitigation measures adopted by the California Oak Mortality Task
Force are incorporated in BIO-13.

BIO IMPACT 14. Removal of calcine deposits and access routes to the deposits will result in the removal of 75 trees,
47 of which have diameters >12 inches. As described in BIO-8, all trees will be replanted on a 3:1 ratio, which will
reduce this impact to less than significant.

BIO IMPACT 15. AQS Park is located in the New Almaden Historical Zoning District. The ordinance requires trees
six (6) inches in diameter or greater be protected. Trees, subject to the relevant provisions of the County’s “Tree
Preservation Up to 75 trees 6 inches or greater in diameter will be removed. As per BIO-8, all trees with diameters 6
inches or greater will be replanted on a 3:1 ratio with trees of the same species.

BIO IMPACT 16. The Resource Conservation Element of the Santa Clara County General Plan states “riparian
habitats in rural lands must be preserved through protection of native vegetation, development setback, regulation of
tree and vegetation removal, and control and design of grading, road construction, and bridges.” Impacts to riparian
habitat from the project will be mitigated as per the measures in BIO-9.
**Cultural Resources**
Removal of the calcine deposits in the project will include both deposit and sediment removal around two historic architectural and archaeological features that could affect the cultural materials:

a) Historic Resource #y44 Retort.
b) Former Vichy Spring water bottling complex operating from 1867 to 1880/1882 were noted during the field inventory of the Alamitos Creek Bridge Deposit (ACB-1) under Bridge No. 37C0160 on Almaden Road.

**CUL-1 Measures:**
Conduct a pre-construction meeting to inform all construction personnel of the potential for exposing subsurface cultural resources and to inform them of the procedures that will be followed upon the discovery or suspected discovery of archaeological materials, including Native American remains and their treatment.

**CUL-2 Measures:**
Further investigate and evaluate identified resources (Historic Resource #y44 – Retort and Vichy Spring Water – Former Bottling Complex) prior to project construction and during project construction is recommended to determine their potential for inclusion on the California Register of Historical Resources. Specific mitigation measures apply to each resource.

There is potential to discover buried human remains, including potential Native American skeletal remains, in the process of excavation and grading.

**CUL-3 Measures:**
Upon discovery of possible buried human remains, work within 100-feet of the find shall be halted and the Santa Clara County’s Project Manager shall be notified. The Project Manager shall retain a qualified archaeologist to review and evaluate the find. Construction work shall not begin again until the archaeological or cultural resources consultant has been allowed to examine the remains.

**Geology and Soils**
Project calcine removal in areas of steep slopes has the potential to result in adverse slope stability impacts. Current project design recommendations are sufficient to address potential slope instability impacts. Appropriate geotechnical inspection and preparation of supplemental design recommendations (if needed) during project grading and the following geotechnical construction inspection services would reduce impacts to less than significant:

**GEO-1 Measures:**
- Conduct geotechnical inspection of all final slopes of 2:1 (horizontal:vertical) or steeper in areas of calcine removal. Exposed slopes should be inspected by the Geotechnical Consultant prior to application of erosion control measures.
- Conduct full time geotechnical inspection during calcine removal in the Upper Hacienda area (this removal site is anticipated to be underlain by Qls materials).
- Excavation of first segment of rock slope foundation at Upper Hacienda to be observed by a County staff.

During construction would involve temporary ground disturbing activities that could increase erosion. These BMPs will reduce the impact to less than significant:

**GEO-2 Measures:**
- Stormwater Pollution Prevention Plan
- Surface Erosion Control Treatments (Hydroseeding and/or Fiber Netting)
- Replacement Planting
- Placement of rip-rap (rock slope protection) over calcine removal areas beneath Alamitos bridge
- Placement of rip-rap at the toe of slopes within the Upper Hacienda and Alamitos Creek removal areas to protect from scour under high flow conditions
Excavation work could increase the potential for dust inhalation. Construction workers, park visitors, and local residents could be exposed to levels of mercury above current conditions. HAZ-1, HAZ-2 and HAZ-3 measures will reduce this potential impact to less than significant.

HAZ-1 Measures:
A worker safety and health program, as required by CalOSHA will be implemented during calcine and soil removal, transport, and consolidation.

HAZ-2 Measures:
The contractor will develop and implement a fugitive dust control program, as approved by the County. This program shall include an onsite Air Quality Monitor (AQM), a Dust Control Plan (DCP), monitoring of the project sites and the transport route for visible dust plumes.

HAZ-3 Measures:
Sediments will be stored and transported in a manner that minimizes water quality impacts as follows:
   a. Wet sediments will be stockpiled in a manner that prevents any material or water from draining into Alamitos Creek.
   b. Water will not drain directly into public streets without providing water quality control measures.
   c. Streets will be cleared of mud and/or dirt by street sweeping, as necessary, and not by hosing down the street.

Potential routes by which hazardous materials could accidentally be released into the environment are through equipment leaking fluids onto soils or into Alamitos Creek. The contractor will implement standard BMPs (HAZ-4), which will reduce this impact to less than significant.

HAZ-4 Measures:
Implement standard Santa Clara County BMPs for controlling oil, grease and fuel from construction vehicles.

The project area is in a “high” Fire Severity Zone (Cal FIRE, 2007). The project would be conducted during the summer and fall when fire danger non-native grasses and weeds dry out and fire danger increases. HAZ-5 measures will be implemented to ensure this impact is less than significant.

HAZ-5 Measures:
   a. A water truck will remain on site equipped with a hose that can be used to spray water on fires.
   b. Each construction vehicle will be equipped with a fire extinguisher.
   c. Workers will be instructed in the need to stay alert to the start of fires and will be given instruction in using fire extinguishers; the construction manager will be informed immediately if a fire starts.

Hydrology
This project has the potential to introduce sediments and calcines into Alamitos Creek as a result of the calcine removal process, of stockpiling excavated materials, and of temporary fill placed to create creek crossings during construction. HYD-1 and HYD-2 Measures, below, reduce this impact to less than significant.

HYD-1 Measures:
Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that ensures material that is removed as a result of this project is not transported by water into Alamitos Creek.

HYD-2 Measures:
Implement measures and techniques for preventing soil erosion as given in the Guidelines and Standards for Land Use Near Streams. In particular, Chapter 4 provides recommended soil and slope stabilization methods.
Land Use
The project would be in conflict with the County of Santa Clara Historic Preservation Zoning Ordinance § 3.50.080 K Tree, Shrub and Landscaping Conservation. Trees must be removed to access and excavate the calcine deposits. County will apply for a Santa Clara County Planning Department Tree Removal Permit and native plant species will be replanted as per Mitigation Mitigation BIO-8.

Noise
Project activities will require the short-term use (six months) of trucks, excavators, bulldozers, graders, compactors, chain saws and other equipment for tree cutting, calcine excavation, trucking to the San Francisco Open Cut, land grading and contouring, restoring slopes, and repairing stream banks and culverts. The project activities would create temporary intermittent and continuous noises.

NOISE-1 Measures:
The County will implement these practices to minimize disturbances to residential neighborhoods surrounding work sites:
  a. No construction on Sundays and legal holidays, or between the hours of 7:00 p.m. and 7:00 a.m. If nighttime construction is required, construction activities should be grouped together so as to avoid continuing periods of high disturbance.
  b. If specific noise complaints are received during construction, one or more of the following noise mitigation measures can be implemented in a more rigorous fashion:
     i. Use hydraulically or electrically powered impact tools (e.g., jack hammers) when possible. If the use of pneumatically powered tools is unavoidable, use an exhaust muffler on the compressed air exhaust.
     ii. Install manufacturer’s standard noise control devices, such as mufflers, on engine-powered equipment.
     iii. Locate stationary construction equipment as far from noise-sensitive properties as possible.
     iv. Notify nearby property users whenever extremely noisy work will occur.
     v. Utilize stockpiles as effective noise barriers when feasible.
  c. Work under the Alamitos Bridge will be conducted as quickly and as quietly as possible.
  d. Internal combustion engines will be equipped with adequate mufflers.
  e. Vehicles will not idle longer than 5 minutes.
  f. All construction equipment will be equipped with manufacturer’s standard noise control devices.
  g. The arrival and departure of trucks hauling material will be limited to the hours of construction.
  h. The County shall place a sign at the entrance of the site informing surrounding neighbors to call the County of Santa Clara, Department of Parks and Recreation regarding noise complaints.

Transportation/Traffic
Project activities would increase traffic on Hicks Road, Alamitos Road, and the unpaved single lane Wood Road within the park. Traffic would arrive on Alamitos Roads after traveling through the community of New Almaden and along the more urban city streets and highways that provide regional access.

TRA-1 Measures:
Implement County Roads and Airports BMPs requiring the installation of fences, barriers, lights, flagging, guards, and signs as determined appropriate by the public agency having jurisdiction, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof.

Construction activities adjacent to Alamitos Road and increased truck and vehicle traffic along haul routes could temporarily increase response times for emergency response providers along affected roadways. This impact could occur on the public roads, but only very briefly during the movement of construction equipment when truck traffic would fully occupy this single lane of Wood Road and the Mine Hill Trail.

TRA-2 Measures:
Prior to the start of the project, County Parks will develop and communicate to the contractor an emergency response procedure for emergency access to Wood Road and the Mine Hill Trail.
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Section 1: Introduction

1.1 Purpose of the Initial Study

In April 2000, the County of Santa Clara was identified as a Potential Responsible Party (PRP) by the U.S. Department of Interior, Office of the Solicitor, (DOI) and the California Department of Fish and Game, Office of Spill Prevention and Response (CDFG), referred to collectively as “the Trustees”. Pursuant to the Natural Resources Damages Assessment (NRDA), the Trustees seek redress for alleged injuries to natural resources from the discharge of mercury into the Guadalupe River watershed that empties into the San Francisco Bay. The Trustees undertook a natural resource damage assessment (NRDA) with the potentially responsible parties (current and former owners of the lands mined for mercury) to develop the Final Almaden Quicksilver Restoration Plan and Environmental Assessment (RP/EA) (USFWS & CDFG, 2008). This plan follows previous remediation actions undertaken at Almaden Quicksilver County Park in 1998-2000.

The County of Santa Clara, the lead agency under California Environmental Quality Act (CEQA), must evaluate the environmental impacts of a project when considering whether to approve a project. This Draft Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the County of Santa Clara Parks and Recreation Department (County Parks Department). The purpose of the Initial Study is to evaluate the potential environmental effects of the proposed Hacienda and Deep Gulch Remediation Project (Project) at Almaden Quicksilver County Park (AQS County Park), Santa Clara County, California.

The Final RP/EA evaluates five additional restoration projects for removing the remaining calcine deposits, mine tailings from the mercury mining operation. There are two primary projects—Jacques Gulch and Hacienda Furnace Yard—and three compensatory projects, Coyote Creek Arundo Removal, Hillsdale Bridge Fish Barrier Removal, and Ravenswood Marsh Predator Control. The compensatory projects are designed to help mitigate some of the impacts of the primary projects. In 2007, the federal government issued a Finding of No Significant Impact (FONSI) for the five projects, with the provision that Jacques Gulch and Hacienda Furnace Yard receive full environmental review. The Jacques Gulch project was undertaken by the Santa Clara Valley Water District under a Mitigated Negative Declaration and was constructed in 2009.

The remediation actions outlined in the RP/EA were also subject to CEQA reviewed by the California Department of Toxic Substance Control (DTSC). In 2006, DTSC adopted a Negative Declaration for the additional soil and calcine removal associated with the Jacques Gulch and Hacienda Furnace Yard projects.

This Draft IS/MND provides the environmental review for the removal of the remaining visible calcine deposits from the former Hacienda Furnace Yard areas located along the banks of Alamitos Creek and Deep Gulch, sites adjacent to the 1998-2000 Hacienda Furnace Yard remediation. The Draft IS/MND provides information to the public, responsible agencies, and trustee agencies on the potential environmental effects of the Project. This document has been prepared in accordance with the CEQA, Public Resources Code section§21000 et seq., and the State CEQA Guidelines, California Code of Regulations (CCR), Title 14, section§15000 et seq.

1.2 Decision to Prepare a Mitigated Negative Declaration

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines §15063(a)). If there is substantial evidence that a project may
have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines the impacts are to a less-than-significant level, a Negative Declaration may be prepared instead of an EIR (CEQA Guidelines §15070(b)).

This Initial Study identifies potentially significant impacts on environmental and cultural resources. The Mitigated Negative Declaration proposes a range of mitigation measures to reduce all such effects to less than significant levels. The County Parks Department has prepared this IS/MND for the Project because all impacts resulting from the Project are reduced to less than significant levels by adoption and implementation of mitigation measures that are incorporated into the project. This IS/MND conforms to the content requirements under CEQA Guidelines §15071. A Mitigated Negative Declaration for this Project is consistent with CEQA Guidelines §15070 which indicate that a Mitigated Negative Declaration is appropriate when:

“The project’s Initial Study identifies potentially significant effects, but:
  a. Revisions to the project plan were made that would avoid or reduce the effects to a point where clearly no significant effects would occur, and
  b. There is no substantial evidence that the project, as revised, may have a significant effect on the environment.”

1.3 Interagency Collaboration, Regulatory Review and Permitting

The CEQA review process is intended to provide the public and both trustee and responsible agencies with an opportunity to provide comment on the project. Trustee agencies are state agencies that have authority by law for the protection of natural resources held in trust for the public. Responsible agencies are those that have some responsibility or authority for carrying out or approving a project. In many instances, these public agencies must make a discretionary decision to issue a local permit or provide right-of-way, funding or resources that are necessary for the project to proceed. In this instance, the California Department of Fish and Game (CDFG) and Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) may be considered responsible agencies.

Because parts of the project occur in a “water of the United States” and have the potential to affect both regulated wetland areas under the federal Clean Water Act (CWA) and special-status species under the federal Endangered Species Act (ESA), there are federal requirements that the Hacienda and Deep Gulch Remediation Project will have to meet. Specifically, if the project requires a dredge and fill permit (CWA §404) the United States Army Corps of Engineers (USACE) will have the responsibility to determine the conditions of issuance. This federal action under the CWA cannot be taken until USACE receives certification from the Regional Board (CWA §401) and has consulted with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as to whether its action or the project could impact a federally protected endangered species.

Also, on a state level, the RWQCB has regulatory authority over wetlands and waterways under both the federal Clean Water Act (CWA) and the State of California’s Porter-Cologne Water Quality Control Act (California Water Code, Division 7). Under the CWA, the RWQCB has regulatory authority over actions in waters of the United States, through the issuance of water quality certifications (certifications) under Section 401 of the CWA, which are issued in combination with permits issued by the Army Corps of Engineers (ACOE), under Section 404 of the CWA. Activities that lie outside of ACOE jurisdiction may also require the issuance of either individual or general waste discharge requirements (WDRs) from the RWQCB.
This IS/MND is intended to assist federal, state and local agencies to carry out their responsibilities for permit review or approval authority over various aspects of the project. The Hacienda and Deep Gulch Remediation Project may require project-specific permitting (See Table 1 – Summary of Agency Permits).
### Table 1 – Summary of Agency Permits

<table>
<thead>
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<th>Permit Required</th>
</tr>
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<tr>
<td>U.S. Army Corps of Engineers</td>
<td>CWA §404 (33 U.S.C. 1344) Permit</td>
</tr>
<tr>
<td>U.S. Fish &amp; Wildlife Service</td>
<td>ESA §7 (50 CFR part 402) consultation, as determined by USACE</td>
</tr>
<tr>
<td>National Oceanic and Atmospheric Administration</td>
<td>ESA §7 consultation, as determined by USACE</td>
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<tr>
<td>National Marine Fisheries Service</td>
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<td>California Department of Fish and Game</td>
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<td>California Department of Toxic Substances Control</td>
<td>Approval for Transportation of Calcine Materials to the Mine Hill Consolidation Site</td>
</tr>
<tr>
<td>County of Santa Clara Planning Department</td>
<td>Tree Removal Permit</td>
</tr>
<tr>
<td>County of Santa Clara Roads and Airports Department</td>
<td>Encroachment Permit</td>
</tr>
<tr>
<td>City of San Jose</td>
<td>Transportation Permit for Hauling Clean Material through the Town of New Almaden</td>
</tr>
</tbody>
</table>
1.4 Public Review Process

This draft IS/MND will be circulated to local, state and federal agencies, interested organizations and individuals who may wish to review and provide comments on the project description, the proposed mitigation measures or other aspects of the report. The publication will commence the 30-day public review period per CEQA Guidelines §15105(b) beginning on July 13, 2010 and ending on August 12, 2010.

Written comments regarding the correctness, completeness, or adequacy of the draft IS/MND should be submitted to the name and address indicated below. Such comments should be based on specific environmental concerns and must be received on or before the close of the public review period. Submittal of written comments via e-mail would greatly facilitate the response process.

Mohamed Assaf, Project Manager
County of Santa Clara Parks and Recreation Department
298 Garden Hill Drive
Los Gatos, CA 95032
(408) 355-2235
e-mail: Mohamed.Assaf@prk.sccgov.org

The draft IS/MND is available for review at:

County of Santa Clara
Parks and Recreation Department
298 Garden Hill Drive
Los Gatos, CA 95032

Calero County Park
Park Ranger’s Office
23201 McKean Road
San Jose, CA 95120

Almaden Branch Library
6445 Camden Ave.
San José, CA 95120
(408) 808-3040

Dr. Martin Luther King, Jr. Library
150 E. San Fernando St.
San Jose, CA 95112
(408) 808-2000

The draft IS/MND is also posted on the County of Santa Clara Parks and Recreation Department website:  http://www.parkhere.org/
1.5 Organization of the Document

The purpose of this document is to evaluate the potential environmental effects of the Hacienda and Deep Gulch Remediation Project. This document is organized to provide the public and agencies with clear, direct information on the potential environmental impacts resulting from the project.

This document is organized as follows:

- **Section 1 – Introduction**
  This chapter provides an introduction to the project, describes the purpose under CEQA, summarizes the state and federal regulatory requirements, sets forth the public participation process and details the organization of this document.

- **Section 2 – Project Description**
  This chapter describes the location, project objectives and characteristics of the project. It provides the level of detail needed to analyze the impacts of the Project.

- **Section 3 – Environmental Setting**
  This chapter describes the general site history and current physical and biological resources in the area in which the project will occur.

- **Section 4 – Environmental Checklist and Responses**
  This chapter contains the Initial Study Checklist that describes potential impacts, identifies the significance of potential environmental impacts and details proposed mitigations to reduce significant impacts to non-significance. This chapter also contains the Mandatory Findings of Significance.

- **Section 5 – Report Preparation**
  This chapter identifies the preparers of this document.

- **Section 6 – References**
  This chapter identifies the references and sources used in the preparation of this IS/MND.
Section 2: Project Description

2.1 Location

The Hacienda and Deep Gulch Remediation Project (Project) is a mercury remediation and habitat restoration project in the Hacienda Furnace Yard Area of Almaden Quicksilver County Park (AQS County Park) and beneath the Alamitos Creek Bridge on Alamitos Road. AQS Park is a 3,977 acres area owned and operated by County of Santa Clara Parks and Recreation Department (County Parks). Alamitos Creek Bridge is owned and maintained by County of Santa Clara Roads and Airports Department (See Figure 1 – Vicinity Map).

The Hacienda Furnace Yard is the site of a mercury mining operations site that operated from 1845 to 1971. The mining operations left significant amounts of mine tailings, called calcines, at the site. In the 1990s in 1998, much of the calcines at Hacienda Furnace Yard was the site of a remediation project to cap the calcines were largely remediated either by grading and capping in place or removed and capping the calcines at the “San Francisco Open Cut” area at Mine Hill area of the park. While most of the material was either capped or removed, the current project focuses on excavating the remaining calcines deposits along Alamitos Creek and Deep Gulch, sites that were difficult to reach during the 1998 remediation on the opposite creek bank or adjacent to the earlier Hacienda Furnace Yard remediation (See Figure 2 – Location Map).

The project site is directly adjacent to the Town of New Almaden, in unincorporated Santa Clara County. Specifically, the northeast end of the project site, under the bridge where Alamitos Road crosses Alamitos Creek, is at the edge of town. Deep Gulch and Upper Furnace Yard areas are west of Alamitos Creek and the other sites are east of the creek, between Alamitos Road and Alamitos Creek.

AQS County Park is located within the New Almaden National Historic Landmark District, one of 120 such places in California and only one of five in Santa Clara County recognized as being of such national historical significance. The County of Santa Clara has established a historic preservation zoning district for New Almaden. The boundaries of the zoning district coincide with the boundaries of the National Historic Landmark District described by the National Register listing. The calcine remediation sites within the AQS County Park are within the National Historic Landmark District.

AQS County Park is located along a northeast ridge of the Santa Cruz Mountains, called the Los Capitancillos Ridge, a line of hills running northwest to southeast, approximately 12 miles south of downtown San Jose, California. Elevations in the project area vary from approximately 520 feet to 460 feet NAVD 88 (BKF, 2007; CH2M Hill, 2009). AQS County Park is within the Guadalupe River watershed.

2.2 History of the Site

Some areas of AQS County Park was the site of cinnabar (mercury sulfide) mining from about 1845 to about 1971. The cinnabar ore was heated to release the mercury and what remained were piles of calcines or “roasted ore” mine tailings. Some of these rocks were cooked multiple times—as furnaces became more efficient—to release more mercury. After the end of the mining period ended, piles of calcines remained in the Hacienda Furnace Yard and lining along the slopes of Deep Gulch and Alamitos Creek. Calcines deposits at Hacienda Furnace Yard were largely remediated in 1998, as stated above.
The County purchased 3,600 acres from the New Idria Mining Chemical Company, the predecessor to Meyers Industries, in 1973 and 1975 to create AQS County Park. The Hacienda Furnace Yard and Jacques Ridge areas were purchased later and added to the Park.

AQS County Park is located within the New Almaden National Historic Landmark District, which was established on October 15, 1966, and it is one of the places in California that is recognized as being of national historical significance. The County of Santa Clara has established a historic preservation zoning district for New Almaden. The boundaries of the zoning district coincide with the boundaries of the National Historic Landmark District described by the National Register listing. The calcine remediation sites within the AQS County Park are within the National Historic Landmark District.

Two historic resources are within the project site.

1. Mining equipment and a retort (a furnace for cooking ore) in the Deep Gulch Area are within New Almaden, a National Historic Landmark District (NHL; No. 66000236) formally recorded as CA-SCI-405H (P-43-000411) and a State Historic Landmark (#339 and #339-1). AQS County Park includes most of the National Historic Landmark District that was established on October 15, 1966. New Almaden was "...one of the four major sources of the world's supply of quicksilver" important prior to the discovery of the cyanide processing (1887) of gold and silver, and was "...the oldest and most productive quicksilver mine in the United States ... and California's first capital-intensive mining venture."

2. The remains of a historic well and portions of the former bottling house complex at Vichy Spring are present under the Alamitos Creek Bridge, also located within the National Historic Landmark District. Bubbles from the spring are present in Alamitos Creek under the bridge and immediately upstream. These sites are within the calcine remediation areas.

Mercury occurs naturally in this area and continues to seep from the landscape and the piles of remaining calcines into Alamitos Creek, a tributary to the Guadalupe River. Mercury mining and the remaining calcines have delivered mercury to the local rivers in the watershed and have contributed to the mercury contamination of the South San Francisco Bay. The elevated mercury levels and the highly detrimental effect of methylated mercury on wildlife and humans have been well documented. The historic mercury mining operations and remaining calcine piles at AQS County Park are one part of this mercury pollution problem.

The County of Santa Clara Parks is required pursuant to terms of the settlement agreement, document in the 2005 consent decree, under the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund Law, to proceed with removal of visual calcines deposited at Upper Hacienda, Lower Hacienda and Deep Gulch and remediation and restoration of these areas. The U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) were appointed as the natural resource Trustee agencies for this action. The Trustees undertook a natural resource damage assessment (NRDA). with the potentially responsible parties (current and former owners of the lands mined for mercury) Information from the NRDA was used to develop the Final Almaden Quicksilver Restoration Plan and Environmental Assessment (RP/EA) (USFWS & CDFG, 2008). This plan follows previous remediation actions undertaken at AQS County Park in 1998-2000. The RP/EA (2008) states that "remedial actions were completed at five former mercury ore extraction or processing areas in Almaden Quicksilver Park from 1998-2000.”
The Final RP/EA evaluates five additional restoration projects for remediating the natural resource damages, removing the remaining calcines. There are two primary projects, Jacques Gulch and Hacienda Furnace Yard, which involve the removal of remaining calcines, and three compensatory projects, Coyote Creek Arundo Removal, Hillsdale Bridge Fish Barrier Removal, and Ravenswood Marsh Predator Control. The federal government issued a Finding of No Significant Impact (FONSI) for the five projects, with the provision that Jacques Gulch and Hacienda Furnace Yard receive full environmental review. The Jacques Gulch project was undertaken by the Santa Clara Valley Water District under a Mitigated Negative Declaration and was constructed in 2009. This Hacienda and Deep Gulch Remediation Project document provides the environmental review for remaining calcine removal along the banks of Alamitos Creek and Deep Gulch, sites adjacent to the earlier Hacienda Furnace Yard remediation.

2.3 RP/EA Goals and Objectives

The RP/EA described how restoration, replacement or acquisition of equivalent resources would be accomplished, based on an assessment of the natural resource injuries that occurred as the result of a release of hazardous substance, i.e. mercury from the calcines. The RP/EA provides a link between the damage assessment and the restoration. The goal of the RP/EA is to make the environment and the public whole for injuries to natural resources that resulted from releases of mercury within the Guadalupe River Watershed from sources of mercury, including from the New Almaden Mining District. The specific objectives of the RP/EA are to directly restore stream sediments and aquatic/riparian habitat at two discreet sites of significant releases (primary restoration) including Jacques Gulch and Hacienda Furnace Yard. Additional compensatory restoration actions were also required (USFWS & CDFG, 2008).

As described in the RP/EA, the Hacienda Furnace Yard Project required that:

- Remaining visible calcine materials be removed/consolidated and/or stabilized,
- Impacted areas be regraded to a stable condition,
- Clean soil be imported for plant growth, where necessary,
- Areas be revegetated by replacing trees and hydroseeding disturbed areas,
- Success criteria for calcine removal/consolidation/stabilization and revegetation be monitored for a period of three years, and
- Annual reports documenting construction efforts, habitat restoration progress and future activates be submitted to the Trustee Agencies.

The Hacienda Furnace Yard restoration project undertaken by County Parks is the sole subject of this Initial Study/Mitigated Negative Declaration conducted under the California Environmental Quality Act (CEQA).

2.4 Hacienda Furnace Yard Calcine Removal

In April 2000, the County of Santa Clara with other local municipalities and companies were identified as potentially responsible parties (PRP) by the U.S. Department of Interior and the State of California Department of Fish and Game (the Trustees) for natural resources damages. act (NRDA). In July 2005, a Consent Decree settlement was reached between PRP and the Trustees. The County’s primary responsibility in accordance with the Consent Decree is to restore the Hacienda Furnace Yard by removing/consolidating and/or stabilizing the remaining visible calcine materials, thereby restoring this area to baseline conditions. The Trustees documented and issued the Final Almaden Quicksilver Restoration Plan and Environmental Assessment (RP/EA) in October 2008 as a guideline for the area restoration. The Consent Decree and RP/EA specifically named Upper Hacienda, Lower
Hacienda and Deep Gulch areas at Hacienda Furnace Yard for restoration (See Figure 3 – Site Map). The County engaged CH2M Hill to investigate these sites, identify and document calcines deposits and provide restoration alternatives. The product was the Engineer’s Report for Hacienda and Deep Gulch Remediation Plan, dated March 2009. The County entered in another contract with CH2M Hill to provide project contract documents for Hacienda and Deep Gulch Remediation Project.

The construction plans call for all visible calcine deposits at Hacienda and Deep Gulch areas to be removed, consolidated and capped at the "San Francisco Open Cut" portion of the Mine Hill area of the Almaden Quicksilver County Park (See Figure 4 – Site Photos). Excavated calcines and associated soils will either be directly transported by truck on the existing Mine Hill Trail to the “San Francisco Open Cut” or stocked-piled temporarily on the previously-remediated, flat grassy areas adjacent to Alamitos Creek and then transported to the “San Francisco Open Cut.” The Mine Hill Trail will be closed to public during transportation of the calcines to the consolidation site (CAL/DTSC 2006: Fact Sheet; CH2M Hill 2009:1-1/Engineer's Report). Appropriate signs will be placed at trailheads and trail junctions warning the public of construction vehicles and informing the public of the project status. During the Mine Hill Trail closure, park visitors will be directed to use the Deep Gulch Trail. Three stretches of Alamitos Creek and one section of Deep Gulch will be temporarily diverted to facilitate construction access across these drainages to remove the calcines in the creek banks or creek proper. Creek diversions will be accomplished by using temporary check dams, piping, pumps, culverts and earthen fill (CH2M Hill 2009a: 6-2, 6-7, Table 4-1/Engineer's Report).

2.5 Calcine Remediation Locations and Quantities

Calcines were delineated at discontinuous sub-areas through the project site (See Figure 5 – Mapped Calcine Deposits). These sub-areas include (CH2M Hill, 2010):

The **Upper Hacienda/Upper Furnace Yard** area involves an area on a steep slope that has exposed soil with minimal non-native grass cover due to dense trees and to native soil and rock formations at the site. The calcine deposits extend approximately 150–200 feet along Alamitos Creek from the creek bottom upslope to Alamitos Road and at certain locations calcine material is in the creek bank (APN 58-20-004).

- **UH-1/Deposit #1** consists of an estimated 3,150 square foot (SF) area with an estimated average thickness of 18 feet. The calcine deposit is moderately cemented, medium to very coarse calcine gravels and cobbles with minor fines; with minor soil cover and largely exposed.
- **UH-2/Deposit #2** consists of an estimated 2,250 SF area with an estimated average thickness of 8 feet. The calcine deposit is moderately cemented, medium to very coarse calcine gravel with minor fines; with minor soil cover and largely exposed.
- **UF-1** consists of an estimated 1,050 SF area with an estimated maximum thickness of 4 feet. The calcine deposit is moderately cemented, medium to very coarse calcine gravel located at the base of the canyon slope.

The **Lower Hacienda** area involves an area on a steep slope between Alamitos Creek and Alamitos Road downstream of the Upper Hacienda area and also extends approximately 150 feet along the slope of Alamitos Road–Alamitos Creek (APN 58-20-004).

- **LH-1/Deposit #1** consists of an estimated 6,000 SF with an estimated average thickness of 5.5 feet. The calcine deposit is moderately to weakly cemented, fine to coarse calcine gravel with trace to 30% fines; with moderate soil and grass in places.
LH-2/Deposit #2 consists of an estimated 750 SF with an assumed estimated average thickness of 2 feet. The calcine deposit is weakly cemented, fine to medium calcine gravel with trace to 30% fines; with an approximately 1-foot soil cover.

The Alamitos Creek and Alamitos Creek Bridge areas involve removal of calcine deposits along localized areas of Alamitos Creek and below the Alamitos Road Bridge. The sites include:
- AC-1/Deposit #1: The Engineer’s Report identified this area consists of an estimated 170 SF with an assumed estimated average thickness of 0.5 feet. However, upon further investigation during the preliminary design revealed that no visible calcines deposits exist in the area. This area will not be remediated.
- AC-2/Deposit #2 consists of an estimated 600 SF with an assumed estimated average thickness of 3 feet. The calcine deposit is moderately to well cemented, fine to medium calcine gravel with trace to 40% fines. Thick soil and vegetation cover the deposit. The outcrop extends approximately 150 feet along the creek embankment from 1 to 3 feet above the active creek channel.
- ACB-1/Deposit #1, located under the Alamitos Road Bridge, consists of an estimated 370 SF with an assumed estimated average thickness of 3 feet. The calcine deposit is within the fluvial sediment and contains an estimated 40% calcine 1-2 inch gravel fragments in a reddish sandy matrix.
- ACB-2/Deposit #2, on the opposite bank from ACB-1 under the bridge, consists of an estimated 370 SF with an assumed estimated average thickness of 3 feet. The calcine material is present within the fluvial sediment matrix.

The Deep Gulch area involves the north bank of the Deep Gulch drainage beginning about 40’ from the Mine Hill trail gate and extending approximately 300 feet to the remains of an abandoned retort.
- DG-1/Deposit #1 consists of an estimated 950 SF with an estimated average thickness of 3 feet. The creek bank is formed of unconsolidated calcines and soil material deposit with fine to medium gravel with trace to 30% fines with minor soil cover.
- DG-1 adjacent area consists of an estimated 4475 SF with an estimated average thickness of 6 feet. This slope area is characterized by mixed calcines and colluvial materials.
- DG-2/Deposit #2 consists of an estimated 450 SF with an estimated average thickness of 3 feet. This creek bank is formed of unconsolidated calcines and soil material deposit with fine to medium calcine gravel with trace to 30% fines; with minor soil cover.
- DG-2 adjacent area consists of an estimated 1915 SF with an estimated average thickness of six feet. This slope area is characterized by mixed calcines and colluvial materials.
- The Retort Area consists of an estimated 1055 SF with an estimated average thickness of 3 feet. Together, these deposits contain an estimated 5,800 cubic yards of calcine material. A construction contingency of 50% has been applied to this volume of material due to the challenging site conditions for accurately assessing these mining deposits. This environmental assessment assumes approximately 9,000 cubic yards of calcine material plus associated soils will be removed from the project site and consolidated and capped at the “San Francisco Open Cut” consolidation area at Mine Hill in AQS County Park.

2.6 Disturbance to Previous Hacienda Furnace Yard Remediation Site

Four areas in the Hacienda Furnace Yard area were remediated previously and some calcines were capped on site. These capped areas are inspected each year to ensure they are intact and calcines are
not exposed. The current project will disturb one of these previous remediation areas. The impacted site is located between Alamitos Road and Alamitos Creek (AC-2). Additional material from this former remediation site will be excavated and consolidated at the “San Francisco Open Cut” at Mine Hill. This material will be removed to provide access to and create stable slopes above the AC-2 deposit. The exposed portion of this remediation area will be recapped with no less than two feet of clean fill.

2.7 Tree Removals and Brushing

Construction access and calcine removal will result in the loss of at most 75 trees with diameters greater than 6 inches in the foothill oak and foothill riparian woodlands. Twenty-three of these removals are coast live oak (Quercus agrifolia) and valley oak (Quercus lobata) trees. At a minimum 50 of these trees will be removed to access and excavate the calcine. It is possible that as many as 25 trees may not need to be removed, based on the extent of the calcine deposits and the location of the tree root systems, but this will not be known until conditions are revealed in the field during construction. As a result, this analysis includes all 75 trees that have the potential to be impacted by the project. Several additional trees in the Upper Hacienda and Alamitos Creek areas will need to be pruned to clear a path for construction equipment, but do not need to be impacted beyond the removal of lower limbs. The areas within the footprint of the calcine removal areas will also be brushed to eliminate the understory for construction access.

2.8 Calcine Consolidation and Capping

The excavated calcine materials will be trucked to the “San Francisco Open Cut” consolidation site at Mine Hill in AQS County Park. The calcine material will be placed on top of other previously removed calcine materials and capped with a minimum of two feet of clean cover.

2.9 Finished Grading After Calcine Removal

The primary goal of this Project is to remove visible calcines and then regrade calcine removal areas to natural and stable slopes. For most areas, it is assumed that calcines are on the surface of the natural slope and that once calcines are removed the natural slope will be exposed, regraded, and then revegetated. However, if calcines are found to exist below the natural slope, deeper excavation and two (2”) minimum cover with a minimum two feet of clean or native soil to ensure calcines are not visible will be undertaken. Areas will then be regraded to a natural contour and slope, and revegetated with native trees, understory plants and ground cover species. Thus, immediately after the Project is completed, the calcine removal areas should appear as natural creek banks and hillside slopes.

At Alamitos Creek (AC-2) the steep banks near the water’s edge will be removed and regraded to a minimum 2:1 slope allowing calcine removal and providing a more natural slope for riparian and oak woodland revegetation. If all calcine within the creek bank is able to be successfully removed then large boulders and rootwads from trees removed for the Project may be installed to protect the toe of the newly formed slope at this location. If some calcine was found to be too deep to be fully removed then it will be capped in place and protected with a riprap wall. At Deep Gulch, more natural landforms will be created by recontouring the slopes and placing rootwads/logs and other bioengineering features that provide stability using natural materials.

At some locations, unstable slopes will require additional erosion protection and slope protection measures. In particular, the slope at Upper Hacienda (UH-1) is very steep. Alamitos Road, just upstream of the calcine deposit failed in 2008 and was rebuilt with a tie-back type of retaining wall. Removal of calcines deposits at this area should be done carefully without significant disturbance of
native slopes. An erosion protection/ cut-off wall with riprap wall will be required where the slope meets Alamitos Creek at ordinary high water (OHW). This wall will be essential for giving providing the slope adequate slope stability and to prevent the creek from eroding under-cutting the slope and causing future undermining of Alamitos Road. Riprap will also be needed where a drainage pipe delivers runoff to the creek between Upper Hacienda 1 and 2. This riprap is also needed to dissipate energy and prevent soil erosion from occurring in the drainage. Appropriate size riprap for energy dissipation and erosion protection will be also needed at the 24” diameter drainage pipe outlet draining Alamitos Road between Upper Hacienda 1 and 2.

An important objective at each calcine remediation site is to create final landforms and soil conditions that are as conducive as possible, within the constraints of the remediation, to restoring the native plant communities that will be disturbed by this calcine removal project.

2.10 Habitat Restoration

As part of the remediation project, impacted oak woodland, riparian communities and wetland/aquatic habitats will be revegetated to restore habitat and protect water quality. Approximately 19,000 SF of oak woodland and 32,000 SF of riparian community will be damaged or degraded by calcine removal and construction access. Up to 75 trees, 47 of which are 12 inches or greater in diameter, will be removed and a wide range of nesting birds of prey, other birds, and other species such as woodrats will temporarily lose their habitat. In particular, the Upper Hacienda and Alamitos Creek sites are moderately or heavily treed and vegetated will be nearly denuded. As part of the Project, appropriate tree species will be replanted and disturbed areas will be revegetated with locally collected and contract grown native understory and ground cover species (See Biological Resources Section) to meet County and agency requirements and to ensure high quality habitat is restored for the many sensitive and listed species that rely on these habitats.

The sensitive stream/aquatic habitat will require protection from potential construction impacts, such as migration of stockpiled material into the creek. A range of measures will be required to ensure that water diversions and creek crossings do not permanently damage the stream habitat and do not result in harm to steelhead trout, California red-legged frogs or western pond turtles, all protected species with the potential to occur in Alamitos Creek.

2.11 Construction Access, Staging and Temporary Trail Closures and Rerouting

The calcine deposits will be accessed via Alamitos Road and the Mine Hill Trail. Two construction staging areas will be established for storage of equipment and temporary stockpiling of calcines. One staging area will be established on each side of the creek near the work areas. The staging areas are both located on former remediation sites and were selected for proximity to the work areas and absence of mature vegetation (See Figure 6 – Site Access and Temporary Culver Placements). These staging areas will allow the County and the contractor to best determine the most efficient way of hauling the excavated calcine deposits to the “San Francisco Open Cut” consolidation area.

Trucks will either make a) round-trips traveling on Alamitos Road and the Mine Hill Trail to reach the consolidation area or b) loop trips carrying full loads along Alamitos Road and the Mine Hill Trail and returning to the project site with empty trucks via Wood Road, Hicks Road and Alamitos Road. These two haul routes are provided as options to the County and contractor (See Figure 7 – Construction Haul Routes) to maximize job efficiency. These two haul routes have been used in the previous remediation efforts in the area including the 1998-2000 Hacienda Furnace Yard Remediation and the 2009 Jacques Gulch Remediation.
The Mine Hill Trail will be closed to the public during transportation of the calcines to the consolidation site (CAL/DTSC 2006: Fact Sheet; CH2M Hill 2009:1-1/Engineer's Report). During the temporary Mine Hill Trail closures, equestrians and hikers will be directed to use the Deep Gulch Trail as an alternative recreation route. Mountain bicyclists will be directed to other park entrances. Appropriate signs will be placed at trailheads and trail junctions warning the public of construction vehicles and providing information on the project status.

2.12 Temporary Dewatering and Crossings of Alamitos Creek

Several of the calcine deposits are located on the banks of Alamitos Creek. In order to access these deposits three temporary creek crossings are proposed on Alamitos Creek and one is proposed in Deep Gulch. These crossings will be located at Upper Hacienda (UH-1 and UH-2)/Upper Furnace Yard (UF), Alamitos Creek (AC-2), Alamitos Creek Bridge (ACB-1 and ACB-2) and Deep Gulch (DG-1) (See Figure 6 – Site Access Routes and Temporary Culvert Placements). At a minimum, these crossings would consist of check dams, culverts and temporary clean gravel earthen fill to channel stream flows into a culverted crossings. Fabric would be laid on the creek bottom prior to placement of the clean gravel earthen fill to facilitate removal of the material after the completion of construction.

In two locations, Upper Hacienda (UH-1 and UH-2)/Upper Furnace Yard (UF) and Alamitos Creek (AC-2), the calcine deposits extend between 150-250 approximately 200 feet along the creek. In these areas, it is probable that the contractor will need to construct a check dam to pump and divert all flow through piping to fully dewater the stream to and facilitate removal of the calcines and to protect creek water quality. The construction access crossings at Deep Gulch and Alamitos Creek Bridge would each temporarily impact approximately 75 feet of channel and the diversions at Upper Hacienda (UH-1 and UH-2) and Alamitos Creek (AC-2), that would include the crossings, would each temporarily impact approximately 300 400 feet of channel (See Figure 6 – Site Access and Temporary Culvert Placements). The total combined temporary dewatering impacts from the three locations along Alamitos Creek would not exceed 675 feet.

A low flow natural spring is located in the creek bed immediately upstream and beneath the Alamitos Creek Bridge. The spring will not be subject to any temporary overcovering or dewatering. This document analyzes this worst-case construction access and dewatering scenario to provide the County and its contractor with the greatest range of possible construction solutions in these difficult to reach areas that are constrained by the steep slopes, mature vegetation and Alamitos Creek.

2.13 Probable Construction Phasing

The Hacienda and Deep Gulch Remediation Project is proposed to occur in two phases. The project will begin with tree removal and brushing in the winter between November 1 and January 31. This first phase will be undertaken outside of the breeding bird season to facilitate construction the following summer. Calcine removal, grading, any additional tree removal and revegetation will occur the following summer during the permitted in stream work window which typically begins April 15 and runs through October 15. A certified arborist will be on site to supervise tree pruning, removal and protection. Revegetation planting will extend into the fall and early winter to ensure the highest potential for planting success during the cooler, rainy season. Construction will typically occur on weekdays.
Section 3: Environmental Setting

3.1 Physical and Biological Environment

Alamitos Creek flows through the Project area, eventually flowing into the Guadalupe River, which flows north into southern San Francisco Bay. The Almaden Reservoir is upstream a few miles from the Hacienda Furnace Yard on Alamitos Creek. “Alamitos Creek is a perennial stream with summertime flows maintained by releases from the Almaden Reservoir (SCVWD, 2003). In the Hacienda Furnace Yard Area, the Alamitos Creek stream gradient is relatively medium characterized by pool-riffle morphology. The Deep Gulch Drainage is tributary to Alamitos Creek and in the project area is dry or nearly so during the summer months. This drainage is characterized by step-pool stream morphology” (CH2M Hill, 2009).

The Engineer’s Report (CH2M Hill, 2009) and the H.T. Harvey Mitigation and Monitoring Plan (2009) state that the soils in the project area are classified as Los Gatos and Maymen series, “which are gravelly loams to a rocky fine sandy loam that are relatively shallow (14 to 35 inches average thickness) (USDA, 1968). The bedrock geology in the project area is complex consisting of marine sedimentary, igneous and metamorphic rocks of the Franciscan Complex (USGS, McLaughlin and others, 2001). These formations are prone to landslides and erosion and can contribute large amounts of sediment to waterways (SCVWD, 2003)” (CH2M Hill, 2009). Mercury is a naturally occurring element in the local rocks and occurs as cinnabar in soil and rocks at the surface and below ground. “Mining activities in the Furnace Yard area resulted in processing waste materials (calcines) from which mercury was removed, but residual mercury remains. These calcine materials tend to be gravel to cobble-sized, cemented deposits on slopes adjacent to Alamitos Creek and Deep Gulch” (CH2M Hill, 2009). The terrain in the area includes almost vertical drops from the road edge or other benches to Alamitos Creek as well as terrace areas as shallow as 6H:1V (CH2M Hill, 2009). The Engineer’s Report (CH2M Hill, 2009) notes that, while of apparent historic significance, “the retort bricks and other materials may contain mercury at concentrations of concern.”

The Final Almaden Quicksilver Restoration Plan and Environmental Assessment (2008) notes, “foothill woodland species are the dominant vegetation in Almaden Quicksilver Park and surrounding areas”. H.T. Harvey (2009) lists 3 primary vegetation types in the Project area:

- Foothill oak woodland, along Alamitos Creek and Deep Gulch, is dominated by coast live oaks (*Quercus agrifolia*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*) and California buckeye (*Aesculus californica*).

- Predominant species in foothill riparian woodland, which lines Alamitos Creek and Deep Gulch, are coast live oaks (*Quercus agrifolia*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*), and California sycamore (*Platanus racemosa*), willows (*Salix spp.*), box elder (*Acer negundo*) and big-leaf maple (*Acer macrophyllum*).

- Chaparral on the hillsides in drier areas are dominated by chamise (*Adenostoma fasciulatum*), buckbrush (*Ceanothus cuneatus*), California sagebrush (*Artemesia californica*), and California buckwheat (*Eriogonum fasciculatum*).

Other habitats include the in-stream/aquatic habitat of Alamitos Creek and wetlands within the riparian corridors of the Deep Gulch drainage and Alamitos Creek, as well as non-native grasslands in disturbed areas scattered throughout the Project area.
One special status plant species, the Loma Prieta hoita (*Hoita strobolina*), was found at Jacques Gulch, a few miles up the watershed from the Hacienda/Deep Gulch site (Santa Clara Valley Water District, 2008). While this plant is not mentioned in the H.T. Harvey (2009) Habitat Restoration and Monitoring Plan or the RP/EA, conditions for its survival exist on the Project site.

A number of animal species are found or could be found in the Project area. Special status species include the California red-legged frog (*Rana aurora*) and California steelhead (*Onchorynchus mykiss*), federally listed species, which are both found in the Guadalupe River watershed. Bald eagles (*Haliaeetus leucocephalus*), California endangered and federally protected, are known to winter on nearby reservoirs. Nests of the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a state species of special concern, have been found in the Deep Gulch riparian zones. The Jacques Gulch Mitigated Negative Declaration (Santa Clara Valley Water District, 2008) also notes that California tiger salamanders (*Ambystoma californiense*), a federally-listed threatened species, and yellow-legged frog (*Rana boylii*), western pond turtles (*Clemmys marmorata*), and a number of bat species all have the potential to occur in the watershed.