COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: September 10, 2014

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Coastal Development Permit Amendment and certification of a Mitigated Negative Declaration to allow Coastside County Water District to dredge up to 450 cubic yards of sediment annually from the area around the Denniston Reservoir water supply intake pipes and to clear by hand vegetation from Denniston Creek upstream from the reservoir to protect water quality.

County File Number: PLN 2014-00142 (Coastside County Water District)

PROPOSAL

Coastside County Water District (CCWD) is applying for a Coastal Development Permit (CDP) to continue maintenance activities at the Denniston Reservoir. This permit would extend the previously approved dredging program for an additional ten years. CCWD proposes to remove up to 450 cubic yards of sediment annually from the area around the domestic water supply intake pipes. CCWD also proposes to hand-clear vegetation from the upstream end of the reservoir as needed. This work is required by the California Department of Public Health in order to reduce silt and vegetation effects near the inlet pipe. The dredged materials will be deposited approximately 0.5 miles northeast of the creek, at a 90,000 sq. ft. clearing used for this purpose since 1985. All work will occur during the dry season and be performed pursuant to the mitigation measures designed to protect sensitive species. This work is similar to but less extensive than that which was permitted by a Coastal Development Permit that expired on March 25, 2014.

In 2009, CCWD was granted a permit to dredge 2,400 cubic yards over the five-year span of the permit, with up to 800 cubic yards removed the first year and up to 400 cubic yards removed annually for the subsequent four years.

In 2013, CCWD's permit was amended to allow one-time work to clear and dredge 1,000 linear feet of Denniston Creek upstream from the reservoir. This work involved clearing vegetation from the stream and dredging a channel to increase the rate of flow to improve water quality and improve riparian habitat.

RECOMMENDATION

Approve the Coastal Development Permit Amendment and certify the Mitigated Negative Declaration, County File Number PLN 2014-00142, by making the required findings and adopting the conditions of approval as listed in Attachment A.

SUMMARY

Staff has reviewed the proposal against the applicable policies of the San Mateo County Local Coastal Program and found the project to be consistent with the Public Works, Sensitive Habitats, and Visual Resources Components. Conditions of approval and mitigation measures imposed on the 2009 Coastal Development Permit and 2013 amendment have been carried over to this permit. Implementation of these measures will reduce potential significant impacts to less than significant levels.

The dredging and clearing proposed also maintain the quality of the wildlife habitat by increasing the amount of open water habitat and edge effect, benefitting the California Red-Legged Frog, San Francisco Garter Snake, Western Pond Turtle, and resident trout.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: September 10, 2014

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit Amendment, pursuant to Section 6328.4 of the San Mateo County Zoning Regulations, and certification of a Mitigated Negative Declaration to allow Coastside County Water District to dredge up to 450 cubic yards of sediment annually from the area around the Denniston Reservoir water supply intake pipes and to clear by hand vegetation from Denniston Creek upstream from the reservoir to protect water quality, pursuant to a finding by the California Department of Public Health. The subject property is located approximately 0.5 miles east of Cabrillo Highway in the unincorporated El Granada area of San Mateo County. The project is appealable to the California Coastal Commission.

County File Number: PLN 2014-00142 (Coastside County Water District)

PROPOSAL

Coastside County Water District (CCWD) is applying for a Coastal Development Permit (CDP) to continue maintenance activities at the Denniston Reservoir. This permit would extend the previously approved dredging program for an additional ten years, measured to the end of the dry season. CCWD proposes to remove up to 450 cubic yards of sediment annually from the area around the domestic water supply intake pipes. CCWD also proposes to hand-clear vegetation from the upstream end of the reservoir as needed. This work is required by the California Department of Public Health in order to reduce silt and vegetation effects near the inlet pipe. The dredged materials will be deposited approximately 0.5 miles northeast of the creek, at a 90,000 sq. ft. clearing used for this purpose since 1985. All work will occur during the dry season (August through October) and be performed pursuant to the mitigation measures designed to protect sensitive species. This work is similar to but less extensive than that which was permitted by a Coastal Development Permit that expired on March 25, 2014.

In 2009, CCWD was granted a permit to dredge 2,400 cubic yards over the five-year span of the permit, with up to 800 cubic yards removed the first year and up to 400 cubic yards removed annually for the next four years.

In 2013, CCWD's permit was amended to allow one-time work to clear and dredge 1,000 linear feet of Denniston Creek upstream from the reservoir. This work involved clearing vegetation from the stream and dredging a channel to increase the rate of flow to improve water quality and improve riparian habitat.

RECOMMENDATION

Approve the Coastal Development Permit Amendment and certify the Mitigated Negative Declaration, County File Number PLN 2014-00142, by making the required findings and adopting the conditions of approval as listed in Attachment A.

BACKGROUND

Report Prepared By: Steven Rosen, Project Planner, Telephone 650/363-1814

Applicant: Coastside County Water District

Owners: Coastside County Water District, Peninsula Open Space Trust (POST), and Golden Gate National Recreation Area (GGNRA)

Location: Denniston Reservoir, approximately 0.5 miles east of Cabrillo Highway between El Granada and Moss Beach

APNs: 037-320-150 (CCWD), 037-320-330 (POST), and 037-320-340 (GGNRA)

Parcel Sizes: 0.353 acres, 214.703 acres, and 389.362 acres, respectively

Existing Zoning: PAD/CD (Planned Agricultural District/Coastal Development District)

General Plan Designation: Agriculture

Existing Land Use: CCWD's water treatment plant and agricultural/open space lands on POST property and GGNRA lands

Flood Zones (amendment area only): Zone X (area of minimal flood hazard), Zone A (areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage), and Zone AE (base floodplain where base flood elevations are provided). FEMA Panel No. 06081C0138E, effective date October 16, 2012.

Environmental Evaluation: An Initial Study and Mitigated Negative Declaration were prepared for this project and circulated from July 31, 2014 to September 1, 2014. As of the writing of this staff report, no comments were received. Comments received after completion of this report will be addressed at the September 10, 2014, Planning Commission hearing. The project's impacts on the study categories *Land Suitability and Geology* and *Vegetation and Wildlife* were significant unless mitigated.

Setting: The subject parcels are portions of the Rancho Corral de Tierra property located in a rural area just north of El Granada. Denniston Reservoir is an on-stream water impoundment located in a coastal valley approximately 0.5 miles east of the Half Moon Bay Airport. The reservoir was originally built in the 1930s as a source of agricultural water supply. In the early 1970s, the Water District acquired rights to a portion of the reservoir's supply. The water diversion facility and treatment plant were subsequently constructed in 1973. A portion of the reservoir's supply continues to be used for agricultural purposes. The project areas are connected by a dirt road that provides access to Cabrillo Highway, Denniston Reservoir, CCWD's water treatment plant, and the spoils site, which is located another 0.5 miles upstream from the reservoir. The primary plant communities include emergent wetland and riparian vegetation surrounding the reservoir and creek. The spoils site consists mostly of a eucalyptus grove and weedy, opportunistic understory vegetation. Surrounding land uses are primarily agriculture and open space.

DISCUSSION

A. KEY ISSUES

1. Conformance with the County General Plan

Staff has reviewed the project against applicable General Plan policies and found the project to be consistent with policy goals and objectives.

a. Vegetative, Water, Fish and Wildlife Resources

Policies 1.22 (*Regulate Development to Protect Vegetative, Water, Fish and Wildlife Resources*) and 1.23 (*Regulate Location, Density and Design of Development to Protect Vegetative, Water, Fish and Wildlife Resources*) aim to minimize significant adverse impacts and encourage enhancement of vegetative, water, fish and wildlife resources through use and location of development.

Identified as emergent wetlands in the Biological Impact Report (Donaldson and Associates, March 2005; supplemental reports by Jim Steele, January 2008, June 2012, and February 2014), Denniston Creek provides a potential breeding habitat for the California red-legged frog, and a potential retreat and feeding habitat for the San Francisco garter snake though no occurrences of either species were observed within the project area during the latest biological survey. Highly erodible granitic soils and past winter storms have led to siltation resulting in reduced water quality and creek capacity. Vegetation and sediment removal performed under the recommended conditions of approval will minimize significant adverse impacts to fish and wildlife to less than significant levels and result in greater water

clarity and improved habitat along the existing channel flow line in compliance with Policy 1.25 (*Protect Water Resources*).

Additionally, performance-related conditions require project activities to commence during the dry season, outside of the breeding season for fish and avian species and take place during daylight hours in compliance with Policy 1.32 (*Performance Criteria and Development Standards*).

b. Soil Resources

Policy 2.17 (*Regulate Development to Minimize Soils Erosion and Sedimentation*) and Policy 2.23 (*Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*) aim to minimize erosion and stabilize disturbed areas.

Prior to construction activities, erosion and sediment control measures will be installed along the operation and haul route (existing dirt road) paralleling Denniston Creek. All equipment will take access from this roadway; no new roads will be constructed nor will additional vegetation be removed along the roadway. Dredged materials will be directly placed into haul trucks and transported approximately 0.5 miles northeast to the spoils site. Spoil mounds are not to exceed 2 feet in height with a less than 5:1 slope and maintained throughout the rainy season to minimize erosion.

Grubbing by hand will minimize vegetation removal to that necessary for the maintenance of healthful domestic water. This will prevent additional erosion and sedimentation. Sediment occurring naturally, as the dredged channel stabilizes, will collect in the reservoir and be removed annually. Maintenance activities beyond 2024 are subject to future Coastal Development Permit approval.

An erosion and sediment control plan is required for review and approval by the Current Planning Section and the Department of Public Works. All approved measures must be implemented prior to project activities and maintained until project completion to ensure policy compliance.

c. Visual Quality

Policy 4.26 (*Water Bodies*) discourages the alteration of streams which would affect their appearance, reduce underground water recharge, or cause drainage, erosion or flooding problems.

Sediment removal is not expected to reduce infiltration, thus a reduction in groundwater recharge is not anticipated. Reservoir capacity is expected to improve after dredging thereby increasing channel capacity during a flood event. Deposited sediment at the spoils site is not located in a flood hazard area nor will the dredged materials at this location create a flood hazard.

Due to the project's distance from Cabrillo Highway, topography and vegetation, the project will not be visible from the Cabrillo Highway County Scenic Corridor (*Policy 4.21*, *Scenic Corridors*).

d. Historical and Archaeological Resources

The previously approved Coastal Development Permit includes a condition of approval addressing the potential, however unlikely, due to previous dredging activities in past years, to unearth historical or archaeological resources during project activities in compliance with Policies 5.20 (*Site Survey*) and 5.21 (*Site Treatment*). No additional conditions are recommended.

e. Rural Land Use

Implementation of the recommended conditions of approval will ensure protection of vegetative, water, fish and wildlife resources for the duration of the project in compliance with Policy 9.4 (*Land Use Objective for the Rural Lands*) which seeks to protect such resources.

f. Water Supply

Policy 10.6 (*Water Quality*) encourages appropriate County and State agencies to monitor water supply quality.

In its 2008 letter, the California Department of Public Health expressed concerns regarding raw water supply quality. In response, CCWD received County and Department of Fish and Wildlife approvals to dredge the Denniston Reservoir and has applied for the current Coastal Development Permit.

2. Conformance with Local Coastal Program (LCP)

A Coastal Development Permit is required pursuant to LCP Policy 2.1, which requires that special districts wishing to undertake development in the Coastal Zone must comply with the California Coastal Act. Development includes, among other items, grading and dredging (LCP Policy 1.2). Staff has summarized below the following sections of the LCP which are relevant to this project:

a. Locating and Planning New Development Component

Policy 1.35 (*All New Land Use Development and Activities Shall Protect Coastal Water Quality*) directs the County to require implementation of a slate of measures that protect coastal water quality by controlling runoff pollution. This project does not entail the creation of additional impervious surface or permanently cleared or disturbed soils. It does involve work that will take place on unpaved ground. Mitigation Measures 24, 25, and 26 are included to prevent erosion, sedimentation, and the pollution of runoff during construction. Mitigation Measure 24 requires the implementation of the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) "General Construction and Site Supervision Guidelines." Mitigation Measure 25 requires the project engineer or construction manager to design and implement a construction erosion and sediment control plan that is appropriate for the site, and it informs the applicant that if additional or entirely different measures from those imposed by Mitigation Measure 24 could be required if they are determined to be more effective. Mitigation Measure 26 regulates the piling of grading spoils so that they will be less likely to erode sediment into coastal waterways.

b. Public Works Component

Policy 2.30 (*Quality of Water Supply*) requires that water quality for domestic use meet potable water standards.

This permit will allow CCWD to continue its maintenance dredging of its domestic supply reservoir. This dredging and vegetation clearing is required if the district is to meet the standards for potable water imposed by the California Department of Public Health (2008 Water System Sanitary Survey Findings).

No facility expansion or new connections will result from this project.

c. Sensitive Habitats Component

Policies 7.1 (*Definition of Sensitive Habitats*), 7.3 (*Protection of Sensitive Habitats*), and 7.4 (*Permitted Uses in Sensitive Habitats*) define sensitive habitats and prohibit uses or development which would have significant adverse impacts on sensitive habitat areas.

As discussed in Section A.1.a, Denniston Creek provides special-status species habitat as an emergent wetland. Fish and wildlife management uses are permitted within sensitive habitats provided no significant impacts occur and the use is compliant with the U.S. Fish

and Wildlife Service (USFWS) and the State Department of Fish and Wildlife (DFW) regulations. The conditions of approval imposed to protect animals during streambed alteration will be maintained for this permit. No similar activity is proposed, but some of the measures are applicable to the upstream channel-maintenance vegetation clearing activity. The recommended conditions of approval ensure that potential significant impacts are reduced to less than significant levels and that USFWS and DFW regulations are met, where applicable.

Policy 7.16 (*Permitted Uses in Wetlands*) allows dredging of wetlands only if such activity serves to restore or enhance the biological productivity of the wetland.

Dredging is only planned in the deep portions of the reservoir around the intake pipes near the face of the dam. The consulting biologist defines this area as open water habitat, distinct from wetland habitat. The excavator will be positioned on the dam or on an access road at the western end of the dam.

Vegetation clearing will be done by hand to maintain an existing creek channel that was restored subsequent to an amendment to a Coastal Development Permit approved in 2013. Siltation had degraded the wildlife habitat upstream from the reservoir due to reduced flow velocity as stream water met the still water of the reservoir pool. The previous clearing restored the channel and increased flow velocity to a state similar to the natural velocity. The restoration of this channel improved the wildlife habitat as well as the quality of the water supply. The maintenance vegetation clearing will maintain the habitat improvement. The temporary disruption caused by individuals hand-clearing vegetation produces long-term benefits to the habitat much greater than the disruption.

As required by Policy 7.17 (*Performance Standards in Wetlands*), construction activities will occur during daylight hours, motorized machinery will minimize noise disturbance (below 45 dBA), and the project incorporates mitigation measures recommended by the Department of Fish and Wildlife and State Water Resources Quality Control Board. These recommended mitigation measures are incorporated as conditions.

As discussed previously, the Biological Impact Report identifies special plant and wildlife species which may be present in the project area. Recommended detection and avoidance measures are included as conditions of approval in compliance with Policies 7.33-7.36, and 7.42 relating to Rare and Endangered Species.

d. Visual Resources Component

As discussed in Section A.1.c, the project is not visible from the Cabrillo County Scenic Corridor (*Policy 8.5, Location of Development*).

B. ENVIRONMENTAL REVIEW

The original Initial Study and Mitigated Negative Declaration for this activity were certified by the Planning Commission in 2009. A subsequent Mitigated Negative Declaration with a new Initial Study was certified on April 24, 2013. These Initial Studies analyzed work that was similar but more extensive in scope than the current proposal. The new Coastal Development Permit will only allow activities similar to but less extensive than those allowed by the 2009 permit and 2013 amendment. The applicant submitted a biological study that showed that the site conditions had not changed from those upon which the previous Initial Study was based. Because the scope of work would pose less of an impact than previously studied, and the conditions at the site had not changed from those previously studied, the Planning Department reused the 2013 Initial Study. (The 2013 Initial Study included an analysis of the ongoing work previously analyzed in the 2009 Initial Study.) This Initial Study recommended mitigation measures that will reduce the impact of the work proposed to a less than significant level.

A new Mitigated Negative Declaration reusing the 2013 Initial Study was prepared for this project and circulated from July 31, 2014 to September 1, 2014. As of the writing of this staff report, no comments were received. Comments received after completion of this report will be addressed at the September 10, 2014, Planning Commission hearing. The project's impacts on the study categories *Land Suitability* and *Geology and Vegetation and Wildlife* were significant unless mitigated. These impacts are described in Attachment F. Conditions of Approval 4-22 were imposed to mitigate the effects of the 2013 streambed alteration. No such work is proposed or permitted at this time, but the conditions are retained in order to provide stronger protection of wildlife during tule clearing activity. Conditions of Approval 23-41 were imposed on the ongoing maintenance dredging and tule removal approved in 2009 and are directly applicable to the activity currently under consideration.

C. REVIEWING AGENCIES

The following departments, agencies, and organizations have reviewed the proposal and offered comments and conditions of approval relative to their respective standards:

San Mateo County Building Inspection Section
San Mateo County Department of Public Works
San Mateo County Geotechnical Engineer
San Mateo County Environmental Health Division

California Coastal Commission
San Francisco Bay Regional Water Quality Control Board
California Department of Fish and Wildlife

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Location Map
C. CDPH Water System Sanitary Survey Findings
D. Supplemental Biological Impact Report (Steele)
E. Biological Impact Report (WRA)
F. Mitigated Negative Declaration

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County of San Mateo - Planning and Building Department

ATTACHMENT A

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00142 Hearing Date: September 10, 2014

Prepared By: Steven Rosen
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the Mitigated Negative Declaration is complete, correct, and adequate and prepared in accordance with the California Environmental Quality Act (CEQA) and applicable State and County Guidelines.

2. That, on the basis of the Initial Study, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project, as mitigated by the mitigation measures contained in the Mitigated Negative Declaration, will have a significant effect on the environment.

3. That the Mitigated Negative Declaration reflects the independent judgment of San Mateo County.

4. That the mitigation measures identified in the Mitigated Negative Declaration, agreed to by the applicant, placed as conditions of approval, and identified as part of this public hearing, have been incorporated into the Mitigation Monitoring and Reporting Plan in conformance with California Public Resources Code Section 21081.6.

Regarding the Coastal Development Permit, Find:

5. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14 of the San Mateo County Zoning Regulations, conforms to the plans, policies, requirements and standards of the San Mateo County Local Coastal Program. The project, as proposed and conditioned, will have no significant adverse impacts to coastal resources and will not have any significant visual impact to the scenic qualities of the area. Potential impacts to sensitive habitats and protected plant/wildlife species will be reduced to a less than significant level

through the implementation of the mitigation measures included as conditions of permit approval.

6. That the project conforms to specific findings required by policies of the San Mateo County Local Coastal Program (LCP). The project, as proposed and conditioned, meets all relevant goals, objectives, and policies contained in the LCP. Specifically, the proposal complies with the policies contained in the Locating and Planning New Development, Public Works, Sensitive Habitats, and Visual Resources Components.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents and plans described in this report and approved by the Planning Commission on September 10, 2014. The Community Development Director may approve minor revisions or modifications to the project if they are consistent with the intent of, and in substantial conformance with, this approval.

2. The amended Coastal Development Permit will expire on October 15, 2024. A maximum of 450 cubic yards of sediment may be dredged from Denniston Reservoir and deposited at the spoils site during each year of the permit (2014 to 2024). Work beyond this project scope shall require an approved amendment to the Coastal Development Permit prior to dredging. No more than 5,000 cubic yards of silt and sediment may be dredged from the reservoir.

3. A qualified biologist shall be present during all dredging activities and disposal activities in order to ensure compliance with the mitigation measures. The biologist's powers shall be as described in the mitigation measures.

4. The work period for completing the work within the creek shall be restricted to low or no stream flow and dry weather and shall be timed with awareness of precipitation forecasts. No work shall occur during wet weather. Wet weather is defined when there has been 1/4 inch of rain in a 24-hour period. In addition, no work shall occur during a dry out period of 24 hours after the above-referenced wet weather.

5. No equipment shall operate in the flowing stream at any time except as may be necessary to construct a dewatering system or divert water flow around the work site. If a dewatering system is proposed, the applicant shall identify the dewatering method and procedure, consult with the Regional Water Quality Control Board, California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service, and submit a plan to the Current Planning Section for review prior to project activities.

6. No tules shall be removed before July 1. After July 1, the tules shall be surveyed for California red-legged frog (CRLF) egg masses. If egg masses are found, no work shall commence. The applicant shall consult with the State Department of Fish and Wildlife (DFW) and the U.S. Fish and Wildlife Service (USFWS).

7. Prior to the onset of any project-related activities, a qualified biologist shall identify appropriate areas to received CRLF adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain similar habitat to the original site, not be affected by project activities, and be free of exotic predatory species (i.e., bullfrogs, crayfish) to the best of the qualified biologist's knowledge. Translocation shall only be performed by a qualified biologist.

8. Additional guidelines for surveys and handling the CRLF described under "Additional guidelines for surveys and handling of the California red-legged frog and the California Tiger Salamander" shall be adhered to. Guidelines can be found at: http://www.fws.gov/sacramento/es/protocol.htm.

9. Nets or bare hands shall be used to capture the CRLF. The qualified biologist shall not use soaps, oils, creams, lotions, repellants, or solvents of any sort on their hands before and during periods when they are capturing and translocating these species.

10. Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement.

11. Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by a biological monitor on foot to displace wildlife and prevent them from being crushed.

12. Rescued fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site and the number and species of fish captured and relocated. The record shall be provided to DFW within two weeks of the completion of the work season or project, whichever comes first.

13. Prior to capturing fish, the most appropriate release location(s) shall be determined using the following criteria:

    a. Temperature. Water temperature shall be similar as the capture location.

b. Habitat. There shall be ample habitat for the captured fish.

c. Exclusion from Work Site. There shall be a low likelihood for the fish to reenter the work site or become impinged on the exclusion net or screen.

14. Handling of salmonids shall be minimized. However, when handling is necessary, the applicant shall always wet hands or nets prior to touching fish.

15. The applicant shall temporarily hold fish in cool, shaded, aerated water in a flow-through live car and protect fish from jostling and noise, and do not remove fish from this container until time of release.

16. The applicant shall measure air and water temperatures periodically. A thermometer shall be placed in holding containers and, if necessary, periodic partial water changes shall be conducted to maintain a stable water temperature. If water temperature reaches or exceeds 18°C, fish shall be released and rescue operations ceased.

17. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

18. If feasible, the applicant shall perform initial fish relocation efforts several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional fish capture passes immediately prior to construction.

19. If mortality during relocation exceeds five percent (5%), capturing efforts shall be stopped and permittee shall immediately contact the appropriate agencies.

20. The applicant shall conduct relocation activities in the morning when the temperatures are cooler.

21. Additional measures to minimize injury and mortality of salmonids during fish and relocation and dewatering activities, if necessary, shall be implemented as described in Paragraph IX, pages 52 and 53 of the Salmonid Habitat Restoration Manual. This document can be found at:

    http://www.dfg.ca.gov/fish/resources/habitatmanual.asp

22. All construction within the stream channel shall occur during daylight hours.

23. Prior to beginning any dredging or vegetation removal activities, the applicant shall submit an erosion and sediment control plan, for review and approval by the Current Planning Section and the Department of Public Works. The erosion and sediment control plan shall be implemented prior to beginning any construction activities and shall be maintained throughout the duration of the project. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

    a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 15 and April 15. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

    b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

    c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges, to storm drains and watercourses.

    d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

    e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

    f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees and drainage courses.

    g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

    h. Performing clearing and earth-moving activities only during dry weather.

    i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

    j. Limiting construction access routes and stabilizing designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. The contractor shall train and provide instructions to all employees and subcontractors regarding the construction best management practices.

24. While the applicant must adhere to the approved erosion and sediment control plan, it is the responsibility of the civil engineer and/or construction manager to implement the Best Management Practices (BMPs) that are best suited for this project site. If site conditions require additional measures in order to comply with the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) and prevent erosion and sediment discharge into the creek or reservoir, said measures shall be installed immediately. If additional measures are necessary, the erosion and sediment control plan shall be updated to reflect those changes and shall be resubmitted to the Planning and Building Department for review. The County reserves the right to require additional (or entirely different) erosion and sediment control measures during dredging operations if the approved plan proves to be inadequate for the unique characteristics of each job site.

25. The applicant shall submit a dust control plan prior to beginning any dredging or tule removal activities for review and approval by the Current Planning Section and the Department of Public Works. All dust control measures shall be implemented prior to beginning any such activities and shall be maintained for the duration of the project.

26. Construction equipment, including the dredger and associated trucks, shall be positioned and operated from the graded roadway or atop the dam to avoid adverse impacts to the reservoir and creek.

27. When hauling dredged material from the reservoir and creek to the spoils site located approximately 0.5 miles east of the reservoir, the trucks shall only use the previously graded dirt roadways; no previously undisturbed areas shall be disturbed as a result of these activities.

28. Only those areas indicated on the plans and specifically described in the application materials and permits may be dredged. The dredged material may only be deposited in the spoils location identified on the plans and in the manner described in the applications and permit discussion.

29. All dredging and tule removal activities shall only occur during dry conditions and during the months of August, September, and early October (prior to October 15).

30. Spoils shall be piled to a height no taller than 2 feet and shall have less than a 5:1 slope. Erosion and sediment controls shall be installed prior to beginning any dredging activities and must be maintained throughout the rainy season (October 15 to April 15).

31. A certified biologist shall conduct a visual site inspection prior to commencement of the annual dredging operations to determine whether any special-status plant species are present in and around the project sites. The biologist shall thoroughly inspect the area in and adjacent to the Denniston Reservoir and creek, along the haul road to the spoils site, and the spoils site itself. No work shall begin until the biologist has determined either (1) no special-status plant species are present at the project sites, or (2) appropriate mitigation measures have been implemented such that no special-status plant species are likely to be harmed during the project.

32. A certified biologist shall conduct a visual inspection of the project sites prior to commencement of the yearly dredging activities. Should any special-status wildlife species be detected, the biologist shall take necessary measures to ensure no adverse impacts to said species occur. No work shall begin until the biologist has determined either (1) no special-status wildlife species are present at the project sites, or (2) appropriate mitigation measures have been implemented such that no special-status wildlife species are likely to be harmed during the project. The biologist shall remain on-site for the duration of the project and shall continue to monitor the reservoir, surrounding wetlands, roadway, and spoils site for any evidence that a protected wildlife species may be present.

33. The applicant shall apply for and obtain an approved Streambed Alteration Agreement from the California Department of Fish and Wildlife prior to each dredging operation. The applicant shall forward a copy of said permit to the Planning and Building Department prior to commencement of the yearly dredging activities.

34. Dredging/hauling vehicles shall be limited to 10 miles per hour within the project vicinity in order to avoid physical harm to snakes and frogs that may be present on the dam and roadway.

35. The applicant shall only operate machinery during daylight hours and shall use noise-attenuating devices wherever possible to reduce noise disturbance as much as possible (ideally below 45 dBA). Noise levels produced by the proposed activities shall not exceed the 80-dBA level at any one moment. All dredging operations shall be prohibited on Sunday and any national holiday.

36. All standing equipment shall be surrounded by a gated snake fence to prevent San Francisco garter snakes from being harmed by said equipment. This fence shall consist of sheets of 4x8 plywood embedded into the ground at a minimum of 6 inches and glued together to eliminate gaps. The fence shall be supported by steel poles and shall have one way escape funnels to allow any snakes or frogs that find their way into the enclosure to escape. A sealing gate shall be included and the gate opened only for vehicles to pass in and out. The fence shall be installed under the supervision of a qualified biologist who has experience with this type of fence.

37. An underwater fence surrounding the reservoir dredging/tule removal areas shall be installed according to the specifications described in the permit application and illustrated in Figure 11 in order to exclude steelhead and California red-legged frogs from the immediate work areas.

38. In the event that archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. In the event evidence of archaeological traces is uncovered, the applicant shall notify the Current Planning Section immediately. Upon review of the archaeologist's report, the Community Development Director, in consultation with the applicant and the archaeologist, will determine the steps to be taken before construction may continue.

39. Vegetation clearing shall be limited to the extent necessary to accomplish the goals of wildlife habitat improvement and water quality.

Department of Fish and Wildlife

40. The Department of Fish and Wildlife has determined that this project is not exempt from Department of Fish and Wildlife California Environmental Quality Act filing fees for the Initial Study and Subsequent Mitigated Negative Declaration pursuant to Fish and Game Code Section 711.4. The applicant shall pay to the San Mateo County Recorder's Office an amount of $2,206.25 within five (5) days of completion of the appeal period.

Department of Water Resources

41. If any modifications are made to the dam or reservoir during the proposed dredging work that will cause it to be of jurisdictional size and subject to State jurisdiction, a construction application, together with plans, specifications, and the appropriate filing fee must be filed with the Division of Safety of Dams.

SBR:fc – SBRY0621_WFU.DOCX

County of San Mateo - Planning and Building Department

ATTACHMENT B

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County of San Mateo - Planning and Building Department

ATTACHMENT C

State of California—Health and Human Services Agency
California Department of Public Health

MARK B HORTON, MD, MSPH
Director

ARNOLD SCHWARZENEGGER
Governor

RECEIVED
JAN 08 2008
COASTSIDE COUNTY
WATER DISTRICT

January 2, 2008

Mr. David Dickson
General Manager
Coastside County Water District
766 Main Street
Half Moon Bay, CA 94019

Dear Mr. Dickson:

WATER SYSTEM SANITARY SURVEY FINDINGS
Coastside County Water District, Water System No. 4110011

This letter confirms the findings of the October 4, 2007, October 30, 2007, and November 28, 2007 sanitary surveys of the Coastside County Water District (CCWD) water system. Ms. Van Tsang of the California Department of Public Health (Department) conducted an inspection of the Nunes Water Treatment Plant (Nunes WTP), the Denniston Water Treatment Plant (Denniston WTP), El Granada Tank 1, 2, and 3, Miramar Tank, Half Moon Bay Tank 1, 2, and 3, Alves Tank, Mira Montes Tank, Hayes Tank, and the Denniston and Pilarcitos wells in the presence of Mr. Joe Guistino, Mr. Steve Twitchell, and Mr. Sean Donovan of your staff. The Department appreciates the thorough and comprehensive explanation of the operations of the treatment plants and distribution system.

A few years ago, the Department had many concerns regarding the operation and reliability of the CCWD water system. The aluminum concentration in the Denniston WTP effluent stream consistently bordered or exceeded the aluminum secondary maximum contaminant level of 200 mg/L. The procedure for determining the correct amount of aluminum sulfate (alum) to add to the raw water supply did not allow CCWD staff the ability to determine which alum concentration produced the "better" floc. Calibration and maintenance of the online turbidimeters were not periodically conducted. The Department challenged CCWD with many and varied items and issues to review, investigate, and correct and you have handled each task quickly and professionally. The improvements in operation, reliability and knowledge of the water treatment plants were clearly displayed during recent inspections of the water system. By understanding the operating characteristics of the Denniston WTP and knowing how chemicals react under certain water quality conditions, CCWD staff significantly reduced the aluminum concentration in the effluent stream by relocating the point of sodium hydroxide (caustic) injection. The Department was pleased to learn that calibration and maintenance of the online turbidimeters are now conducted every month to ensure that the units operate properly and produce accurate results. In addition, during the inspections, CCWD was requested to demonstrate a jar test while

explaining the steps involved. This task was completed impeccably. Further, the detailed jar testing instructions posted above the jar test station were particularly noteworthy.

A few issues regarding the Nunes and Denniston WTPs and the distribution reservoirs, though, still require your attention and response. Please provide your response, in writing, by February 15, 2007.

Denniston Water Treatment Plant

Pressure Filter Inspection

The Denniston WTP utilizes multi-media pressure-type filters to remove particulate from the raw surface water supply. Section 64660 (b) (8), Chapter 17, Title 22 of the California Code of Regulations (CCR) require pressure filters to be physically inspected and evaluated annually for such factors as media condition, mudball formation, and short circuiting. During the inspection, Department staff was informed that only visual inspections were conducted to the pressure filters at the Denniston WTP on an annual basis. During the next non-operating season, please conduct a thorough physical inspection of all three pressure filters and submit the findings to the Department for our records.

As part of the inspection and evaluation of the pressure filters, please include the following components:

1. A review of historical records for media characteristics (media type, depth, effective size, uniform coefficient and specific gravity) and filter operation (filter loading rates, run time, range of filter backwash rates, time in backwash mode, filter head loss and average applied turbidity).

2. An inspection of the existing media. A thorough examination for disturbances in the media surface should be conducted. If a crack, mound, hole, or depression is detected, record its location and size.

3. Free-board measurements of the surface washers. The free board distance is the distance from the top of the media to the bottom of the surface wash nozzle. The nozzles should be approximately 2 to 3 inches above the media. Missing nozzles should be located and replaced.

4. Free-board measurement of header. The free board distance in this situation is the distance from the top of the media to the top of the header. The free board distance to the top of the header provides information on how much the filter bed can expand before loss of media is experienced. The free-board measurements also provide information if any media has been lost since the last recorded measurements.

5. Media Probing. With a ½ inch diameter steel rod (3 to 4-feet length, flat ends), probe media at pre-selected locations and determine media depth. The rod is to be slowly pushed through the filter media until the support media is reached. The total media depth should be compared with design specification for loss or gain of media.

6. Filter Coring. Coring analysis will help determine the effectiveness of filter backwash, polymer overdosing, allows the operator to check the actual depth of the medium, to obtain a medium size distribution profile across the entire depth of the filter bed and

evaluate the movement of filter gravel. Filter coring should be performed before a filter backwash when the filter is at the end of its filter run and after a backwash. The before and after backwash samples are compared for the amount of sludge adhering to the media using the floc retention analysis (discussed below).

7. An assessment for mud ball, media interface, and media depth. After coring is completed, dig into the filter media with bare hands to determine thickness of anthracite and sand and interface, and whether mud balls are present. An interface of larger than 6 inches indicates the media may not be properly matched or that the final stage of the backwash cycle does not allow for adequate stratification.

8. Assessing Surface Washer. While the filter is drained, slowing turn on the surface wash system to provide enough water for the nozzles. Staff should observe for any missing or plugged nozzles and leaking pipes. Repairs or replacements should be made if necessary. The surface wash arms should be within 6 inches of the media. The nozzles in a stationary system should be within 2 to 3 inches of the media.

9. A filter bed expansion test. A key component for a filter bed to reliably produce high quality effluent is to provide adequate bed expansion in the backwash cycle in combination with a good surface wash system. Too little bed expansion will leave the bed with an overabundance of flow retention and this will shorten filter runs and risk the passage of particles into the finished water. Too much bed expansion can cause loss of media and strip away needed ripening that has been patiently built up over the preceding run, causing a need for a greater ripening period. Bed expansion can be measured using tools such as a Pan Pipe.

10. Floc Retention Analysis. Floc retention analysis is used to evaluate the amount of sludge (floc) retained on a unit volume of media across the depth of a bed at the end of a filter run and the cleanliness of the filter bed after a backwash.

11. Sieve analysis. A sieve analysis is conducted to determine the effective size and uniformity coefficient of the filter media. This may be done to verify if the media is within design specification. As the media falls out of specification, lost of media and greater media interface can occur.

Please incorporate these components into CCWD's operation plan and submit a revised copy to the Department.

Controlling DBP Formation

On May 18, 2006, the Department conducted an inspection of the Denniston WTP and reservoir. At that time, we expressed great concerns about the raw water supply source for it was severely compromised by the in-filling sediments within the Denniston Reservoir. In addition, the heavy growth of plant materials and decreasing water depth contributed to a highly organic laden, eutrophic type of environment. The Department required CCWD to take immediate actions to clear the reservoir from the plant materials and accumulated silt and sediment, especially around the intake structures. However, as seen in Figures 1 and 2, the vegetation around the intake structures have not been removed but instead have further grown to where it completely in filled the shallow intake. The Department understands that approval must be obtained from other regulatory agencies before the reservoir can be dredged. However, we continue to stress the importance of reducing the levels of organic carbon in the raw water

source prior to pre-chlorination to prevent disinfection byproduct formation. Therefore, please continue to pursue approval to remove the plant materials within the Denniston Reservoir.

Repairs and installations

During the May 18, 2006 inspection, Department staff also recommended CCWD repair the leak between the rapid mixer's flange and to install a Plexiglas cover over the opening of the rapid mixer. As seen in Figure 3, upgrades to the rapid mixer have not been completed. Please consider implementing these changes as part of CCWD's improvements to the Denniston WTP.

Nunes Water Treatment Plant

Use of Polyaluminum Chloride as a Primary Coagulant

It was discussed during the inspection regarding the use of Polyaluminum Chloride (PACl) as the primary coagulant at the Nunes WTP during high turbidity events. As with any addition or change in water treatment, a comprehensive evaluation must be completed to determine if any detrimental effects on water quality may occur. The evaluation, which may be accomplished through jar tests for a wide variety of water quality conditions, should examine the impact PACl has on water quality parameters such as turbidity, pH, and chlorine residual. In addition, an amended permit application package must be submitted and include the following documents:

1. Completed water supply permit application. The permit application form is available at http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Permits/AmendedPermitApplication.pdf

2. Revised Operations Plan to include the addition of the PACl system.

3. Documentation for Compliance with ANSI/NSF Standard 60 for the PACl chemical.

Watershed Sanitary Survey

Section 64665, Chapter 17, Title 22 of the CCR requires water suppliers to conduct sanitary surveys of their watersheds at least every five years. The survey and report should include physical and hydrogeological description of the watershed, a summary of source water quality monitoring data, a description of activities and sources of contamination, a description of any significant changes that have occurred since the last survey which could affect the quality of the source water, a description of watershed control and management practices, an evaluation of the system's ability to meet requirements of this chapter, and recommendations for corrective actions.

SFPUC sending down 24 Jan 08

CCWD's raw water supply consists of three active surface water sources (Denniston Reservoir, Crystal Springs Reservoir, and Pilarcitos Reservoir) and one standby surface water source (San Vicente Reservoir). According to Department records, watershed sanitary surveys were completed for the Denniston and San Vicente Creek watersheds in April 2006, making the next update due 2011. However, the last survey report for the Crystal Springs and Pilarcitos Reservoir that the Department has on file is for the survey conducted in 2000. Please submit an updated watershed sanitary survey report for the Crystal Springs and Pilarcitos Reservoir to the Department by February 1, 2008.

Drinking Water Source Assessment

The Drinking Water Source Assessment and Protection (DWSAP) Program was established in response to the 1996 reauthorization of the federal Safe Drinking Water Act, which included an amendment requiring states to develop and implement a program to protect sources of drinking water. The assessment includes a delineation of the area around a drinking water source through which contaminants might move and reach that drinking water supply. Also, it includes an inventory of activities that potentially could lead to the release of microbiological or chemical contaminants within the delineated area. Finally, an assessment is made to determine the susceptibility of the source water to contamination. The Department is aware that CCWD is in the process of completing the assessments for the Denniston and Pilarcitos groundwater sources. Please submit the findings to the Department upon its completion. More information regarding the DWSAP Program can be found on the Department's website at:
http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx

System Improvements

As discussed above, many improvements to the operation and reliability of the CCWD water system have been made and the Department looks forward to future improvements. As part of CCWD's improvement plans, please consider the following recommendations to protect the system and safeguard water quality:

- El Granada Tank 1 - A small patch on the tank's roof is severely corroded and a small hole has formed (Figure 4), allowing rain water to flow directly into the storage tank. Please cover the opening to prevent sanitary hazards from entering the reservoir and contaminating the water supply. In addition, please explore options to repair the corroded area to prevent further damage to the tank.

- El Granada Tank 3 – As seen in Figure 5, the roof of El Granada Tank 3 is completely covered with pine needles and other plant materials. Please clear all debris from the tank roof and provide routine maintenance to the tank, if necessary, to prevent buildup of dirt, debris, and potential contaminants that could enter the water supply.

- Half Moon Bay Tank 1 – The hatch cover (Figure 6) and sections of the roof (Figure 7) are severely rusted. Please correct this problem to prevent further damage to the storage tank and potentially impact water quality.

- Half Moon Bay Tank 2 – The hatch cover (Figure 8) and the internal ladder and wall surfaces of the tank (Figure 9) are severely rusted. Please correct this problem.

- Half Moon Bay Tank 3 - A large amount of sediment have accumulated on the ladder and interior walls of Tank 3. Please clean the interior walls and ladder and flush the highly turbid water to waste. (Figure 10)

- Alves Tank – The steps on the internal ladder are rusted. Please either replace the ladder or correct the corrosion problem. (Figure 11)

With the knowledgeable and conscientious team of staff at CCWD, the Department is confident that CCWD can provide a safe, reliable and high quality supply of water for current and future needs of your community. The Department appreciates the assistance provided Mr. Guistino, Mr. Twitchell, and Mr. Donovan during the inspection.

If you have any questions regarding this letter, please feel free to contact Ms. Van Tsang at (510) 620-3602.

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Department of Public Health

cc: San Mateo County Environmental Health Department

County of San Mateo - Planning and Building Department

ATTACHMENT D

SAN MATEO COUNTY

BIOLOGICAL IMPACT REPORT

Denniston Reservoir Dredging Project

OWNER/APPLICANT

Name: Coastside County Water District

766 Main Street, Half Moon Bay, CA 94019

Contact: Joe Guistino, Superintendent of Operations

Office: 650-726-4405 FAX: 650-726-5245

PROJECT LOCATION

Denniston Reservoir on Denniston Creek, ½ mile NW of HWY 1.

APN: 037-320-1`50, 037-320-280

PRINCIPAL INVESTIGATORS

Jim Steele, Steele Biological Consulting (SBC), 10750 Pingree Road, Clearlake Oaks, CA 95423; 916-834-6165
Reference Report (WRA, 2005) by Donaldson and Associates, 627 Spokane Ave., Albany. CA 94706; 510-528-3684

REPORT SUMMARY

Maintenance dredging at Denniston Reservoir consists of the equipment parking, dredging, spoils transport and dumping footprints. Two plant communities occur consisting of emergent wetland and eucalyptus forest. The WRA report found records for 61 plant species known to occur in the area. No special status species were found during site surveys. SBC surveyed the operations footprints and found no special plant species habitats due to traffic ground disturbance. The WRA fauna survey found 30 documented special status species in the vicinity of the project area and five species with a high potential or documented occurrence in the project area. These are CA red-legged frog (CRLF), western pond turtle (WPT), yellow warbler, saltmarsh common yellow throat and tricolored blackbird. There are ten occurrences of the SFGS in the Montara Mountain Quadrangle but no confirmed occurrence in Denniston Creek. Rainbow trout occur in the system.

Maintenance dredging at 450 cubic yards/annum will take place for two to seven days within August, September or October at non-breeding periods. Aquatic and terrestrial fencing will exclude sensitive wildlife species; no sensitive plant species will be at risk. Hay bails will filter runoff sediments and aquatic plants will be hand cut. A biological monitor will oversee each equipment movement. No

residual operational impacts are expected and the resulting larger open water environment and edge effect will benefit CRLF, SFGS, WPT and resident trout.

PROJECT AND PROPERTY DESCRIPTION

Denniston Reservoir is located a short distance (~1 mile) NE of the Half Moon Bay Airport and N of El Granada in western San Mateo County. Referring to the "Planning Document Narrative," Figure 1 depicts the spoils area. Figure 2 shows the project location on a USGS topographic map. Figure 3 is a dredging plan of the site. Figure 4 is a portion of the applicable Assessor's Parcel Map. It depicts the District's easements and landownership in the project vicinity.

The Denniston Creek watershed contains areas of highly erodible granitic soils. The Denniston Reservoir has been subject to significant episodic surges of silt and sediment from landslides and the erosive forces of rainfall runoff during significant winter storms. The impoundment capacity of the reservoir has been greatly reduced over time through the accumulation of sediment.

The reservoir was originally built in the 1930s as a source of agricultural water supply. The Denniston Reservoir is still a source for agricultural water and has been an important source of water supply for Coastside County Water District customers including residents and businesses in Half Moon Bay, El Granada, Princeton and other nearby areas since 1973.

METHODOLOGY

SBC surveyed the project area while reviewing data from the CA Natural Diversity Database. The project area is described in the Planning Document Narrative. The rest of the survey was reviewing the equipment haul route and the spoils dumping area.

RESULTS

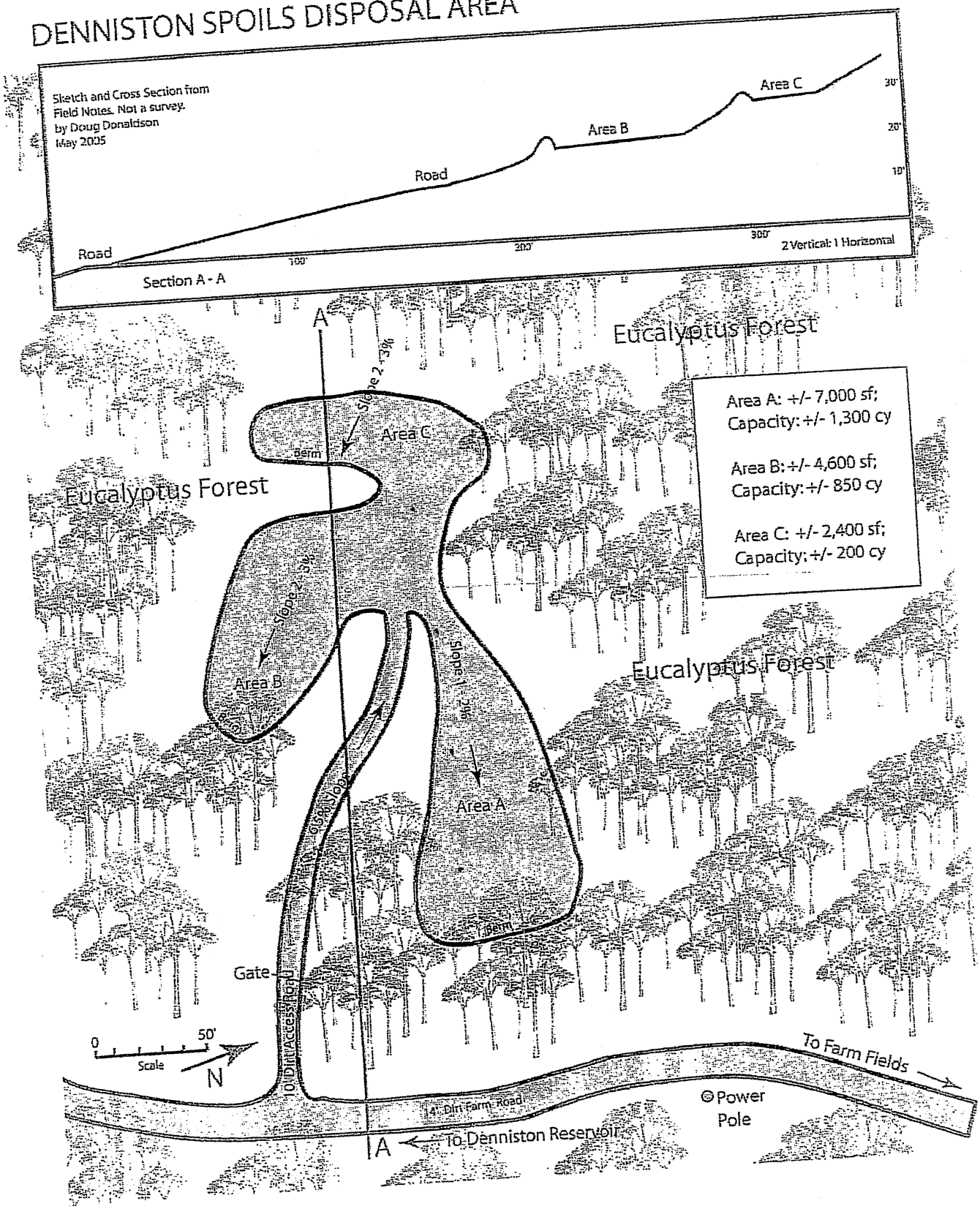
The proposed activities were reviewed and revised to fit the proposed operations and provide additional protection measures. The WRA 2005 report is provided (attached) as detailed biological information. The recommendations section is superseded by the recommendations provided in the Planning Document Narrative (PDN), e.g. no wildlife will be handled. The dredging season is projected as between August and October. The dredging activity will use a pause (at the surface) bucket method to reduce water suspended sediments and will take place over two or up to seven days. Other details are in the PDN.

Date: 2/28/2014 Signed: _____

Jim Steele, Steele Biological Consulting

FIGURE 3

DENNISTON SPOILS DISPOSAL AREA



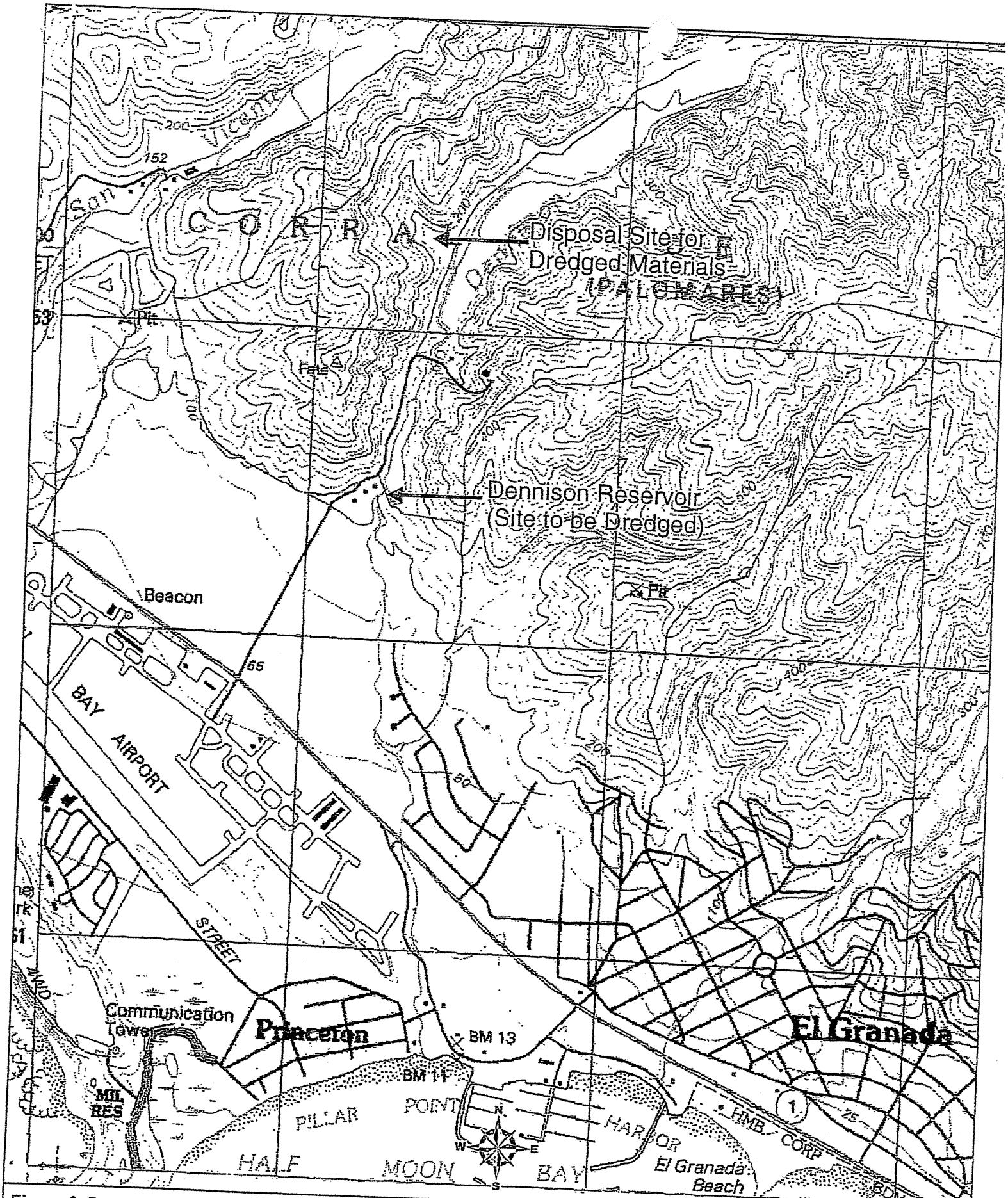


Figure 2. Dennison Reservoir Study Area

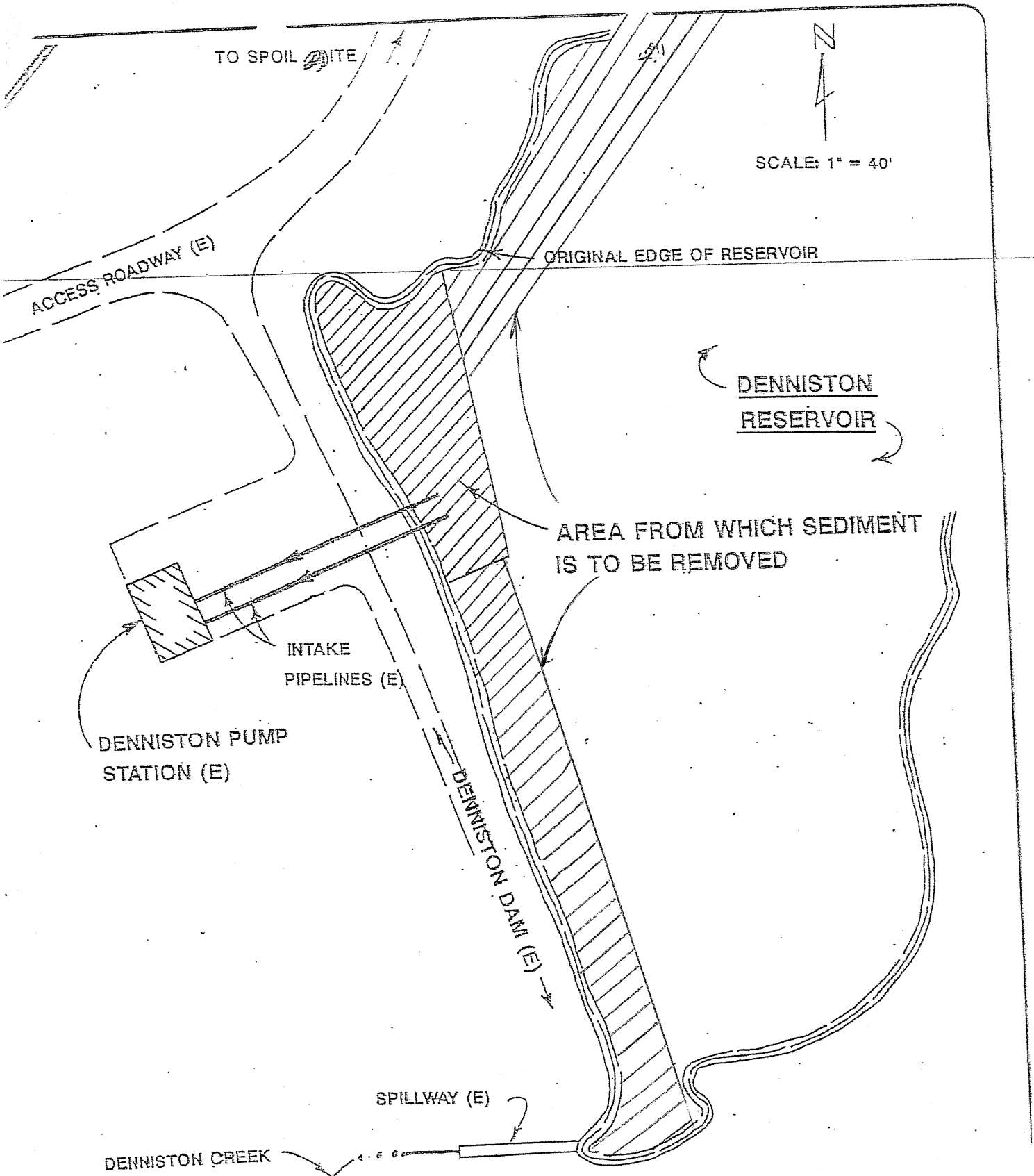
San Mateo County, California

SCALE

0.25 0.125 0 0.25 Miles

1 inch equals 0.25 miles
1:15,840

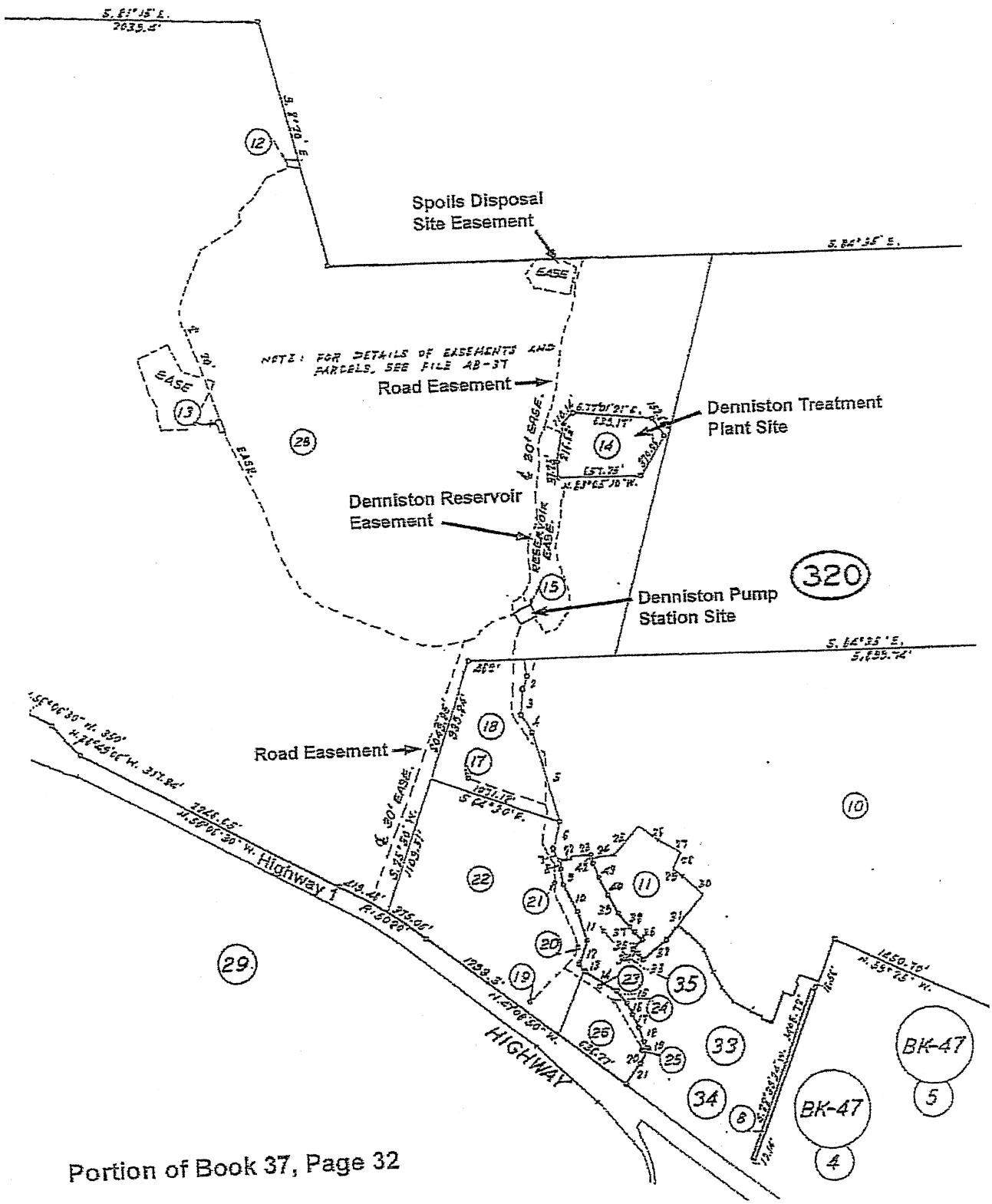
wra
ENVIRONMENTAL CONSULTANTS



DENNISTON RESERVOIR SITE PLAN

ASSESSOR'S PARCEL MAP

FIGURE 4



Portion of Book 37, Page 32

County of San Mateo - Planning and Building Department

ATTACHMENT E

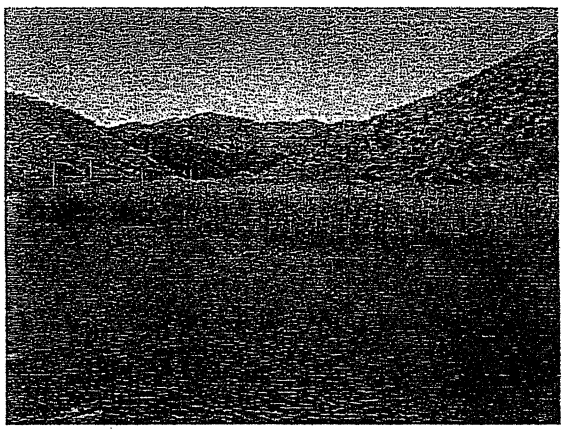
San Mateo County Biological Impact Report

Denniston Reservoir Dredging Project
San Mateo County, California

Prepared For:
Coastside County Water District
766 Main Street
Half Moon Bay, California 94019
Contact: Ed Schmidt
(650) 650-726-4405

Donaldson and Associates
627 Spokane Avenue
Albany, California 94706
Contact: Doug Donaldson
(510) 528-3684

Contact:
Phil Greer
greer@wra-ca.com



Date:
March 18, 2005

wra
ENVIRONMENTAL CONSULTANTS
2169-G East Francisco Blvd., San Rafael, CA 94901 (415) 454-8868 tel (415) 454-0129 fax info@wra-ca.com www.wra-ca.com

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1.0 INTRODUCTION

WRA, Inc. (WRA) conducted a biological assessment of Denniston Reservoir (Study Area) in an unincorporated area of western San Mateo County, California. The Study Area included the dredging footprint at the four acre Denniston Reservoir and downstream reach of Denniston Creek, as well as a two acre dredged spoils disposal site and the unpaved roadway connecting the two locations. Denniston Reservoir is currently used as a source of potable water for coastside residents. The purpose of this assessment was to determined the potential suitability of the Study Area for special-status species and sensitive habitats as well as potential impacts to these species as a result of proposed dredging activities within the Study Area.

San Mateo County Biological Impact Report Guidelines define Sensitive Habitats as;

> " .... any areas in which plant or animal life or their habitats are either rare or especially valuable and those areas which meet one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tidelands and marshes, (4) coastal and offshore areas containing breeding and/or nesting sites and coastal areas used by migratory and resident water-associated birds for nesting and feeding , (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes. Such areas include riparian areas, wetlands, sand dunes, marine habitats, sea cliffs, and habitats supporting rare, endangered, and unique species."

Special status species are those plants and animals that have been formally listed or proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act or California Endangered Species Act. Listed and proposed species are afforded protection under these acts. California Department of Fish and Game (CDFG) Species of Special Concern are also treated as special status species. Species of Special Concern are those that face extirpation in California if current trends continue. Although they have no special legal status, these species (and federal species of concern) are given management consideration whenever possible. Impacts to these special status species are considered significant according to the California Environmental Quality Act (CEQA).

Special Status plants include all plants included in Lists 1 through 4 of the CNPS Inventory (Skinner and Pavlik 1994), and plants that qualify under the definition of "rare" in the California Environmental Quality Act, section 15380. Impacts to List 1 and 2 plants are always are considered significant according to the California Environmental Quality Act (CEQA), and List 3 and 4 plants may be considered significant.

1.1 Project and Property Description

The Denniston Reservoir Study Area is located approximately one half mile northeast of Highway 1 along an unpaved access road (Figure 1). The actual dredging project footprint includes the portion of the reservoir to be dredged, the dredge disposal area located approximately one mile up Denniston Canyon, and the unpaved roadway between these two locations. Denniston canyon is approximately 350 feet

wide within the reach containing the Study Area and rises to a height of nearly 300 feet above the canyon floor. The reservoir is formed by Dennistion Creek which originates at the main ridge of Montara Mountain to the northeast of the Study Area and flows into Half Moon Bay approximately one mile to the southwest. Open agricultural fields are situated immediately west of the Study Area.

Two plant communities occur in the Study Area: emergent wetland and eucalyptus forest. The fringe of Denniston Reservoir is dominated by emergent wetland vegetation including California bulrush (*Scirpus californicus*), cattail (*Typha* sp.), arroyo willow (*Salix lasiolepis*), spreading rush (*Juncus effusus*), water parsley (*Oenanthe sarmentosa*), willow herb (*Epilobium ciliatum*), and umbrella sedge (*Cyperus eragrostis*). Several plants associated with native coastal scrub are located along the access road adjacent to the reservoir including coyote brush (*Baccharis pilularis*), sagebrush (*Artemisia californica*), and seaside golden yarrow (*Eriophyllum staechadifolium*). However, these species are located in an area that has been repeatedly disturbed due to past dredging activities. As a result, this area is not considered to be coastal scrub habitat.

The dredged spoils disposal site is dominated by a blue gum eucalyptus (*Eucalyptus globulus*) overstory with mix of native and non-native understory species including German ivy (*Senecio milkanoides*), Bermuda buttercup (*Oxalis pes-caprae*), poison hemlock (*Conium maculatum*), soft rush (*Juncus patens*), wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*), cutleaf geranium (*Geranium dissectum*),acacia (*Acacia* sp.), and pampas grass (*Cortaderia selloana*). These understory species are primarily weedy opportunistic plants that have established after the area was cleared for dredged materials disposal.

The proposed project involves dredging of approximately 400 cubic yards of sediment from the Denniston Reservoir along the upstream face of a constructed dam and adjacent to the access road north of the dam. The sediment will be removed from the reservoir using an excavator and loaded directly into a dump truck where it will be allowed to drain prior to hauling to the disposal site. Prior to transport, excavated emergent vegetation will be stockpiled overnight adjacent to the work area. The disposal site is located approximately 0.5 miles north of the dam along the main access road and extends several hundred feet back from the access road into a declivity in the north wall of the canyon. It is enclosed on three sides by steep walls and is screened from the access road by eucalyptus trees and German Ivy. Dredged material will be disposed of in small piles in an enclosed portion of the disposal site where it will available to the coastside water district as backfill for future projects. This same spoils disposal site has been used during previous dredging activities within the reservoir in 1982, 1986, 1994 and 1998.

Z2.0 METHODS

The Study Area is located in an unincorporated area of San Mateo County, and is within the California Coastal Zone. Land use is regulated by San Mateo County under its Local Coastal Program (LCP). The Study Area may also fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act and the California Department of Fish and Game (CDFG). WRA traversed the Study Area on foot on February 2, 2005 to identify potential sensitive habitats as well as suitable habitat for special status species as defined by the State of California and San Mateo County.

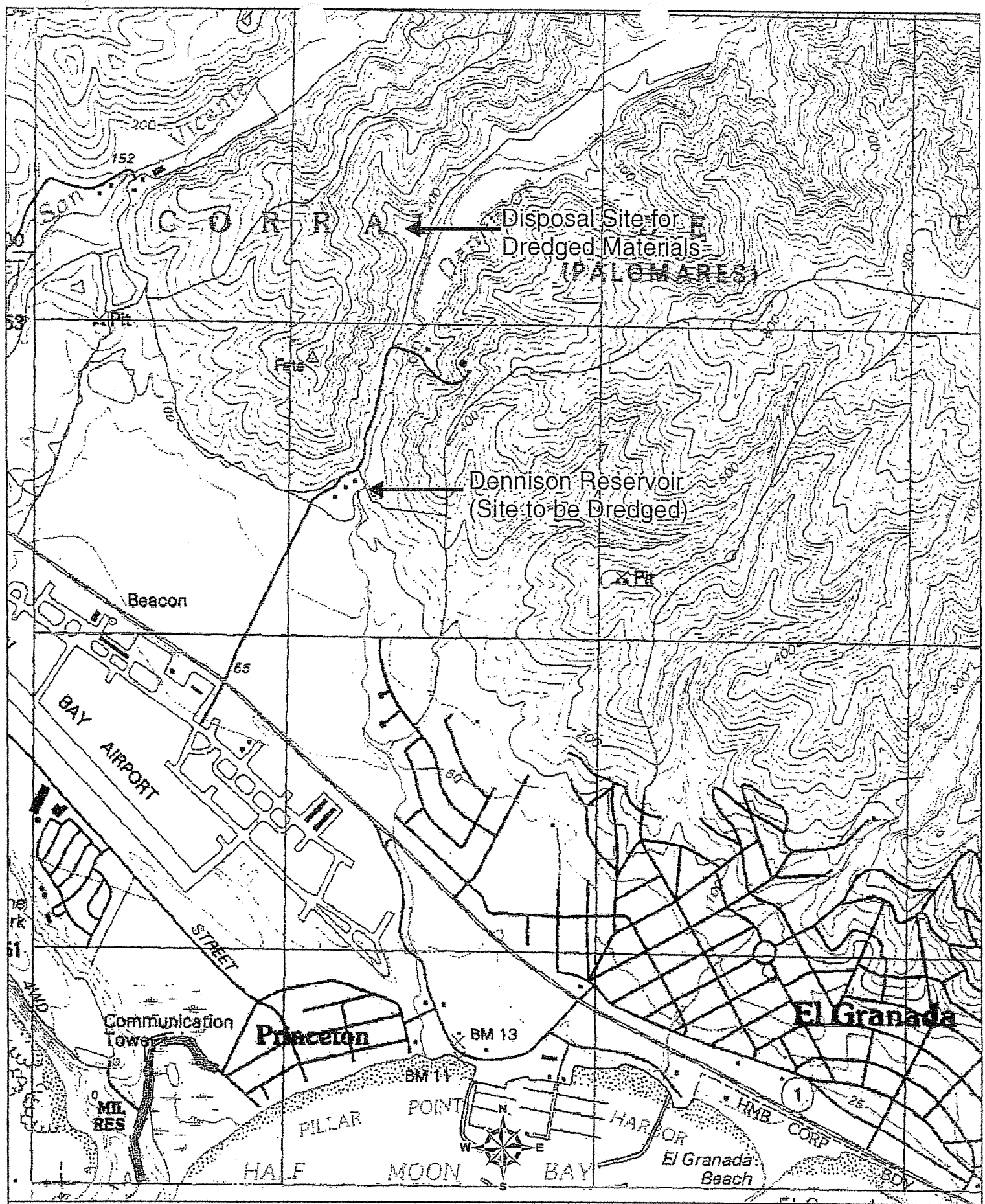

Figure 1. Dennison Reservoir Study Area

San Mateo County, California

2.1 Sensitive Habitats

2.1.1 LCP Wetlands

The Study Area was surveyed to determine if any wetlands and/or waters potentially subject to jurisdiction by the California Coastal Commission. Potential Coastal Commission wetlands were identified based on definitions contained in the San Mateo Local Coastal Program. The San Mateo County L CP, which has been certified by the Coastal Commission to implement the Coastal Act, defines a wetland as:

> *"...an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and manmade impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds, and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.*
>
> *In San Mateo county, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, spreading rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these plants, unless it is a mudflat."*
>
> (Section 7.14, San Mateo County Local Coastal Program, June 1998)

The plant species listed above in the LCP wetland definition include many, but not all, of the dominant species found in coastal wetlands in San Mateo County with US Fish and Wildlife Service wetland indicator status (Reed 1996) of OBL and FACW. Sedges (e.g. *Carex* sp, OBL) and willows (e.g. *Salix lucida*, OBL and *Salix exigua*, FACW) are notable omissions from this list. Strict adherence to the SMCLCP list and definition could result in some wetland areas dominated by OBL and FACW species being determined as uplands. In order to avoid this, the presence of OBL or FACW species equivalent to the typical species listed in the LCP wetland definition were used to identify potential wetland areas within the Study Area. All plant species were identified based on taxonomic nomenclature provided in the Jepson Manual.

2.1.2 U.S. Army Corps of Engineers Jurisdictional Wetlands

As stated in the federal regulations for the Clean Water Act, wetlands are defined as:

> *"Those areas that are inundated or saturated by surface or ground waters at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.*

Wetlands generally include swamps, marshes, bogs, and similar areas."
(EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)

The Study Area was assessed for the presence or absence of wetland indicators used by the U.S. Army Corps of Engineers in making a jurisdictional determination. The three criteria used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the *Corps of Engineers Wetland Delineation Manual* (1987):

> *"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."*

The routine method for wetland delineation described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Study Area. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status[1] of OBL, FACW, or FAC as given on the U.S. Fish and Wildlife Service List of Plant Species that Occur in Wetlands (Reed 1988). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, algal mats and drift lines, or indirect indicators (secondary indicators), such as oxidized root channels. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual and Field Indicators of Hydric Soils in the United States (NRCS, 2002).

2.2 Botanical

A list of special status plant species known to occur in the vicinity of the Study Area was compiled using occurrence records for the Montara Mountain, Half Moon Bay and San Francisco South USGS quadrangles in the California Department of Fish and Game's Natural Diversity Database (CNDDB)(CDFG 2000 and 2003) and the California Native Plant Society's Electronic Inventory (CNPS 2000 and 2003) (Appendix A). The site was traversed on foot on February 2, 2005 to determine potential habitat for special status plant species in the Study Area.

A focused survey for two potentially occurring special status species, Hickman's cinquefoil (*Potentilla hickmanii*) and marsh horsetail (*Equisetum palustre*), was conducted February 24, 2005. The field survey was conducted by a WRA botanist with experience conducting surveys for rare plant species with potential to occur in the area. During the rare plant survey, all plant species within the Study Area were identified using the Jepson Manual (Hickman ed. 1993) to the taxonomic level necessary to determine rarity. Rare plants are defined here to include: (1) all plants that are federal or state listed as rare, threatened, or endangered, (2) all federal and state candidates for listing, (3) all plants included in Lists

[1] OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

1 and 2 of the CNPS Inventory (CNPS 2001a), and (4) plants that qualify under the definition of "rare" in the California Environmental Quality Act (CEQA), section 15380.

2.3 Zoological

Prior to the site visit, the California Department of Fish and Game Natural Diversity Data Base (CDFG 2004), USFWS unofficial species lists, and other CDFG lists and publications (Jennings and Hayes 1994, Williams 1986, Zeiner et al. 1990) were reviewed to determine documented or potential presence of special status wildlife species in western San Mateo County in habitats similar to those found on the Denniston Reservoir Study Area (Appendix D). Published and non-published reports (Barry 1994, Skinner 1962, EIP 1994) were investigated for information concerning special status species in the vicinity.

The Study Area was traversed on foot on February 2, 2005 to determine if existing conditions provided suitable habitat for special status wildlife species and to observe species on the site. All wildlife observed or otherwise detected were noted. Potential for special status species was evaluated by classifying the potential for occurrence for each listed species according to the following criteria:

(1) Not Present. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime). The species has an extremely low probability of being found on the site.

(2) Low Potential. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.

(3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

(4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

(5) Present. Species is observed on the site or has been recorded (i.e. CNDDB) on the site recently.

3.0 RESULTS

3.1 Wetlands

Areas with a predominance of wetland vegetation and hydrology meeting both the LCP and Corps wetland definitions were found along the fringe of the Denniston Reservoir. The reservoir fringe is dominated by emergent wetland vegetation including cattails, bulrush, spreading rush, and arroyo willow. Additional areas containing wetland vegetation were located within the dredged spoils disposal

site. However, upon further inspection these areas did not appear to have adequate wetland hydrology or wetland soils. It is presumed that many of the hydrophytic plant species identified in this area were transplanted during previous dredged material disposal activities, and were not responding to current wetland conditions. A total of approximately 0.03 acre of potential San Mateo County LCP and Corps wetlands were located within the Property.

3.2 Botanical

During the February site assessment and subsequent rare plant survey, 61 plant species were observed within the Study Area (Appendix B-1). No special status plant species were observed during these visits. Based on a review of the resources and databases given in Section 2.2, 40 special status plant species have been documented in the general vicinity of the Study Area (Appendix A). The Study Area was determined to contain potentially suitable habitat for nine of the these species. Seven species were determined to have low potential for occurrence within the Study Area including coastal marsh milk vetch (*Astragalus pycnostachyus var. pycnostachyus*), Franciscan thistle (*Cirsium andrewsii*), compact cobwebby thistle (*Cirsium occidentale var. compactum*), San Mateo tree lupine (*Lupinus eximius*), western leatherwood (*Dirca occidentalis*), Choris' popcornflower (*Plagiobothrys chorisiansus* var. *chorisianus*), and coastal triquetrella (*Triquetrella californica*). Two species, Hickman's cinquefoil and marsh horsetail, were determined to have a moderate potential for occurrence. The remaining 31 species are not likely to occur within the Study Area.

Many species were considered not present, or had a low potential to occur within the Study Area due to degraded habitat conditions or a lack of species' habitat requirements, including specific plant communities, elevation, and soils. Most of these species are known to occur within coastal scrub, chaparral, or cismontane woodland consistent with habitat immediately adjacent to the Study Area; however, the proposed project will not impact these adjacent habitats

A focused rare plant survey for Hickman's cinquefoil and marsh horsetail was conducted February 24, 2005. The survey occurred outside of the blooming period for Hickman's cinquefoil; however, this species can be clearly identified based the distinct leaf morphology and habitat requirements for this species. Marsh horsetail is a perennial non-flowering species and can be identified at anytime. All plant species encountered within the Study Area during the rare plant survey were identified to a taxonomic level sufficient to determine rarity. No special status plant species were observed within the Study Area during this survey.

3.3 Zoological

Thirty special status wildlife species have been documented to occur, or potentially occur, in the vicinity of the Study Area in western San Mateo County (Appendix A). Of these species, nine wildlife species have a low potential for occurrence in the Study Area, 13 species have a moderate potential for occurrence, and three species are not likely to ever be present. Five species have a high potential for occurrence or are documented present: California red-legged frog, western pond turtle, yellow warbler, saltmarsh common yellowthroat, tricolored blackbird. A search of the CDFG Natural Diversity Data Base (CNDDB) found no documented occurrences of special status species in the Study Area (Figure 2). However, the CNDDB search found one documented occurrence of California red-legged frog (*Rana*

aurora draytonii) downstream of the Study Area along Denniston Creek, as well as ten documented occurrences of the San Francisco garter snake (*Thamnophis sirtalis tetrataenia)* within the Montara Mountain Quadrangle.

Ten wildlife species were observed or otherwise detected in the Study Area during the February 2 site assessment (Appendix B). The wildlife species observed in the Study Area are commonly found species in the region. Though no special status species were observed during the February 2 assessment, WRA wildlife biologist Jeff Dreier observed California red-legged frog egg masses during a brief site visit in late January 2005.

This section evaluates special status species that are known to occur or have a high probability of occurring at the Denniston Reservoir Study Area. The San Francisco Garter Snake and steelhead-Central California Coast ESU are also discussed due to their conservation importance in the region. Thirteen species with a moderate potential to occur in the Study Area are summarized following this section.

Federal and State Threatened Species

California red legged frog, Federal Threatened, CDFG Species of Special Concern.

Distribution

The California red-legged frog is the largest native frog in the western United States. The range of the frog extends along the coast from Marin County to northwestern Baja California and inland from the vicinity of Redding, Shasta County. It is typically found from sea level to elevations of approximately 1,500 meters.

Habitat

This species occurs primarily in coastal regions from Marin County to Ventura County in isolated ponds or pools, or in slow-moving perennial or ephemeral creeks. California red-legged frog use a variety of aquatic, upland, and riparian habitats including ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, permanent ponds, perennial creeks, marshes, riparian corridors, blackberry thickets, non-native annual grasslands, and oak savannas. Dispersal from breeding habitat to various aquatic, upland, and riparian habitats often occurs in the summer. Dispersal over long distances (up to 2 miles) is common and can occur without regard to topography, vegetation type, or riparian corridors. Populations of California red-legged frog are most successful in areas where there are multiple breeding locations within an assemblage of habitats that are used for dispersal.

Occurrence in the Study Area

The frog was documented to occur along Denniston Creek on June 9, 1989 (CDFG 2004) and suitable breeding habitat persists along the creek, both up and downstream of the reservoir and within the reservoir itself. The coastal scrub habitat adjacent to the Study Area provides suitable upland and dispersal habitat and no major barriers to dispersal exist. California red-legged frog eggs were observed

by WRA wildlife biologist Jeff Dreier during a late January site visit.

San Francisco Garter Snake, Federal Threatened, State Threatened.

Distribution

Historically, San Francisco garter snakes occurred in scattered wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County.

Habitat

The preferred habitat of the San Francisco garter snake is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied. Temporary ponds and other seasonal freshwater bodies are also used. The snakes avoid brackish marsh areas because their preferred prey (California red-legged frogs) cannot survive in saline water for extended periods. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp.and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover. Snakes also use floating algal or rush mats, if available.

Occurrence at the Study Area

Barry (1994) reported in his thesis of the distribution, habitat, and evolution of the San Francisco garter snake that the population of *T.s. tetrataenia* at Denniston Creek declined from 0.1 to zero (4-0) resident snakes from 1972 through 1977 and has remained at or near zero since then. In a report prepared for the Coastside County Water District (EIP 1990 in EIP 1994), potential habitat for the San Francisco Garter Snake was assessed with the assistance of Dr. Samuel M. McGinnis, a recognized specialist in the habits and habitat of this species. No San Francisco garter snakes were observed on any of the sites studied during the 1990 survey, including the site of the dredging project in Denniston Reservoir. However, two sightings of the San Francisco garter snake in Denniston Creek between 1978 and 1990 were thought to be reliable. Habitat for the San Francisco Garter Snake in the vicinity of Denniston Reservoir was rated Moderate for feeding habitat and High for retreat habitat. A search for evidence of the San Francisco garter snake at the project site for a 1994 dredging project did not indicate that the species was present (EIP 1994).

Intensive trapping and visual surveys capable of definitively establishing the presence or absence of this species at the Study Area have not been performed and the reservoir continues to provide suitable habitat for the San Francisco garter snake. Dense tule and cattail stands provide refuge, cover and basking opportunities and suitable upland habitats adjacent to the reservoir are undisturbed. Despite the fact the species is uncommon in the county and has not been observed at the reservoir, USFWS generally assumes presence in suitable habitat areas for this species if no current survey information is available.

Steelhead-Central California Coast ESU, Federal Threatened.

Distribution

The Central California Coast ESU includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin.

Habitat

This species exhibits varying degrees of anadromy; anadromous forms of the species, known as steelhead, are born in fresh water and migrate to marine waters to live as adults before returning to fresh waters to breed. Nonanadromous forms are known as rainbow trout (or landlocked trout if man-made barriers prevent migration to marine waters) and spend their entire lives in fresh water stream habitats. Although rainbow trout and steelhead are classified within the same species, the former is not generally protected by state or federal regulations.

Steelhead typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for 2 or 3 years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Steelhead adults typically spawn between December and June and are iteroparous, meaning that they are capable of spawning more than once. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.

Occurrence at the Study Area

According to CDFG (Pers. Comm. Jennifer Nelson, CDFG) resident trout (landlocked steelhead) are present along Denniston Creek, both above and below Denniston Reservoir. A perched culvert near the mouth of the creek, below Highway 1, currently creates an impassable barrier to steelhead migration up Denniston Creek. The dam at Denniston Reservoir forms a second impassable barrier approximately one mile upstream from this location. According to CDFG records, resident trout were observed during an electrofishing survey between these two barriers in 2000 and a substantial population of the trout are present upstream from the dam. One resident trout was observed during the WRA site visit when a local fisherman at the reservoir caught and released an approximately six inch individual. The perched culvert is on the San Mateo County list for remediation, though it is unknown when this may actually occur.

Suitable spawning gravels formerly existed in the upper reach of Denniston Creek before the reservoir dam was built in the 1930's (Skinner 1962) and steelhead were known to spawn in the creek. Today, the lower reach of Denniston Creek is inaccessible to spawning steelhead and is generally unsuitable due to the siltation of the creekbed and the overall channelized nature of the creek and subsequent lack of sufficient riffles and backwater pool areas. Siltation of the creek occurs from decomposed

granite silt that is brought down naturally from the watershed (Denniston Reservoir Initial Study, 1994) and erosion from agricultural fields located both upstream and downstream of the Study Area. The creek is generally characterized by high flow volume and dense brushy overstory. Non-native eucalyptus trees form the upper canopy over the creek and brushy vegetation, willows and invasive ivy dominate the lower riparian corridor. However, despite the overall deficiency of preferred habitat elements within this portion of Dennsiton Creek, resident trout are present, indicating that some suitable habitat elements are present. If barriers to migration were removed from this creek, steelhead would likely utilize the creek once again.

According to the Federal Register listing for this species (NOAA 1997), NMFS believes available evidence suggests that resident rainbow trout (landlocked steelhead) should be included in listed steelhead ESUs in certain cases. Such cases include: (1) Where resident O. *mykiss* have the opportunity to interbreed with anadromous fish below natural or manmade barriers; or (2) where resident fish of native lineage once had the ability to interbreed with anadromous fish but no longer do because they are currently above human-made barriers, and they are considered essential for recovery of the ESU. Whether resident fish that exist above any particular man-made barrier meet these criteria, must be reviewed on a case-by-case basis by NMFS.

CDFG and USFWS Species of Concern

Western Pond Turtle, USFWS Species of Concern, CDFG Specis of Special Concern. The western is associated with permanent or nearly permanent water in a wide variety of habitat types. Pond turtles require basking sites such as partially submerged logs, rocks, or mats of floating material. Hatchlings are preyed upon by fishes, bullfrogs, garter snakes, wading birds, and some mammals. Hatchlings may be subject to rapid death by dessication if exposed to hot, dry conditions. Suitable aquatic habitat is available for this species in the reservoir, however no known records of the species at the reservoir or creek exist.

Yellow warbler, CDFG Species of Special Concern . The yellow warbler is a summer resident of Northern California and breeds in deciduous riparian habitats. Suitable breeding habitat is available for this species in the willow riparian habitat located adjacent to and upstream of the reservoir.

Saltmarsh common yellowthroat, USFWS Species of Concern, CDFG Species of Special Concern. Despite its name, this species also occurs in fresh and brackish marshes and wetlands, nesting in emergent wetland vegetation and riparian vegetation in the San Francisco Bay region. Breeding populations have been documented in wetlands along the San Mateo County coast (CDFG 2004). The cattail/tule marsh habitat of the reservoir provides suitable breeding habitat for this species.

Tricolored blackbird, USFWS Species of Concern, CDFG Species of Special Concern. This species breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. It feeds in grassland and cropland habitats during winter months and is more widespread at this time. Breeding habitat must be large enough to support colonies of 50 or more pairs. The cattail/tule habitat at the reservoir provides suitable breeding habitat for this species.

Species with a Moderate Potential to Occur at the Study Area

Townsend's Western Big-Eared Bat, USFWS Species of Concern, CDFG Species of Special Concern. This species is primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts are highly associated with caves and mines and they are sensitive to human disturbance. This species may occur to forage over the waters of the reservoir and nearby scrub habitat.

Fringed Myotis, USFWS Species of Concern. Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Long-Eared Myotis, USFWS Species of Concern. This species is primarily a forest associated species. Day roosts are found in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts include caves, mines and under bridges. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Long-Legged Myotis, USFWS Species of Concern. The long-legged myotis is generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Yuma Myotis, USFWS Species of Concern. This species is known for its ability to survive in urbanized environments. It is also found in heavily forested settings. Day roosts are found in buildings, trees, mines, caves, bridges and rock crevices. Night roosts are associated with man-made structures. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Greater Western Mastiff Bat, USFWS Species of Concern. This species is found in a wide variety of habitat. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders. This species may occur to forage over the waters of the reservoir and nearby scrub habitat.

Dusky-Footed Woodrat, USFWS Species of Concern, CDFG Species of Special Concern. This species occurs in forest habitats of moderate canopy and moderate to dense understory. It is also found in chaparral habitats. It feeds mainly on woody plants: live oak, maple, coffeeberry, alder, and elderberry. This species may occur in the riparian habitats upstream of the reservoir, nearby coastal scrub habitats and in the eucalyptus forest.

American Bittern, USFWS Species of Concern. This species occurs in fresh emergent wetlands, often hiding, resting, and roosting solitarily amidst tall, dense, emergent vegetation, on ground, or near

ground on log, stump, or on emergent plants. Suitable habitat for this species is available within the emergent vegetation of the reservoir and upstream along Denniston Creek.

Cooper's Hawk, CDFG Species of Special Concern. Cooper's hawk inhabits areas with dense tree stands or patchy woodlands. They usually nest in deciduous riparian areas or second-growth conifer stands near streams. Suitable habitat is present for this species in woodland areas adjacent to the reservoir. This species may roost and nest adjacent to the Study Area and forage within Study Area.

Sharp-Shinned Hawk, CDFG Species of Special Concern. Sharp-shinned hawks are generally associated with woodland habitats. They typically nest in isolated areas away from human disturbance. Suitable habitat is present for this species in woodland areas adjacent to the reservoir. This species may roost and nest adjacent to the Study Area and forage within Study Area.

White-tailed kite, USFWS Species of Concern, CDFG Species of Special Concern. This raptor is a year-long resident of coastal and valley lowlands. Kites prefer to forage in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Habitats used for nesting include dense willow, oak, or other stands of trees (Zeiner et. al. 2000). This species is common in the region and may occur to roost and nest in trees adjacent to the reservoir and forage within the Study Area.

Monarch Butterfly. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind protected tree groves, with nectar and water sources nearby. Suitable winter roost sites exist for this species in tall eucalyptus up and downstream of reservoir and in the vicinity of the spoils disposal area.

4.0 POTENTIAL IMPACTS AND ASSOCIATED MITIGATION FOR SPECIAL STATUS SPECIES AND SENSITIVE HABITATS

4.1 Wetlands

A total of approximately 0.03 acres of potential LCP and Corps wetlands occur within the Study Area along the fringe of Denniston Reservoir. Wetland vegetation will only be impacted by the project within the footprint of the proposed dredging area. This wetlands assessment did not identify additional potential wetlands elsewhere within the Study Area.

4.2 Botanical

No special-status plant species were observed within the Property during the biological assessment site visit or during the late February rare plant survey. All plant species within the Study Area were identified to a level necessary to determine rarity, and therefore it is unlikely that any special status plant species occur within the Study Area. No additional botanical surveys are recommended for the Study Area.

4.3 Zoological

The majority of special status species that may potentially occur at the Study Area are not expected be impacted by the proposed project due to: 1) the extremely short-term nature of the project (less than

one week), 2) the relatively small footprint of dredging activity in the Study Area and avoidance of sensitive habitats in the vicinity of the reservoir, 3) the limited suitability of the habitats within the actual project footprint for species that may occur in the immediate vicinity (e.g. coastal scrub species), 4) the low probability for many of the species (bats, raptors, songbirds) to pass through or attempt to forage within the project footprint at the time of activity, and 5) the lack of long-term habitat loss that would occur in association with this project.

Nevertheless, dredging in the reservoir has the potential to indirectly impact select special-status species through noise disturbance, a temporary increase in water turbidity levels, and the presence of human activity. Potential impacts and recommended mitigation measures for these species are addressed below.

Potential Impacts/Mitigation

California Red-Legged Frog

The proposed project will temporarily impact California red-legged frog breeding habitat and may temporarily disturb upland habitat. Indirect impacts to red-legged frogs potentially occurring downstream of the Study Area could occur as a result of increased siltation during the dredging operations. Increased turbidity of waters downstream from the Study is expected to be equivalent to a large storm in the watershed and will last for five days or less, therefore no mitigation measures are recommended.

Mitigation measures to reduce impacts to California red-legged frogs include:

- A qualified biological monitor should be present during all dredging and disposal activities.
- Immediately prior to the dredging operation, the biological monitor should survey the shoreline and upland areas adjacent to the reservoir that will support dredging equipment for California red-legged frogs. If a frog is detected, no work would proceed until the frog had left the work area. (Biologist will not be able to relocate the frog outside the work area unless permitted by the USFWS through a Section 7 consultation and the subsequent Biological Opinion or Section 10 Habitat Conservation Plan. Section 7 consultation would only occur if the Corps of Engineers or another federal agency were required to issue a permit).
- The project should be completed in August and September to avoid the breeding season.

San Francisco Garter Snake

CDFG and USFWS were consulted on potential impacts to the San Francisco Garter Snake during previous dredging activities (EIP 1994). At this time, the agencies expressed the opinion that as long as dredging did not actually extend into the sides of the dam, and that there was minimal disturbance of the area of the dam above water level, the San Francisco Garter Snake, if present, would not be affected. Because the District would avoid altering the dam itself, the potential impact on the San Francisco Garter Snake was not considered significant.

New information on the status of the snake at the Study Area is lacking, therefore it must still be considered potentially present. The proposed project will temporarily impact potential San Francisco garter snake aquatic habitat by increasing turbidity and may also temporarily disturb upland habitats adjacent to the dredging operation.

Mitigation measures to reduce impacts to the San Francisco garter snake include:

- A qualified biological monitor should be present during all dredging and disposal activities.

- Immediately prior to the dredging operation, the biological monitor should survey the shoreline and impacted upland areas adjacent to the reservoir that will support dredging equipment for San Francisco garter snakes. The haul road between the reservoir and disposal site should be monitored during the project for San Francisco garter snakes that may be crossing or basking on the road. Vehicles should be limited to 10 miles per hour; vehicle operators should contact the project biologist if a snake is observed. If the snake is detected and work must be halted, the project biologist will consult the appropriate agencies.

Steelhead-Central California Coast ESU

Steelhead do not currently utilize Denniston Creek for spawning due to impassable barriers to migration. However landlocked trout are present above and below the dam and the proposed project may lead to additional siltation of the creek below the reservoir dam. It is expected that the suspended sediments caused by the dredging operation will equivalent to a large storm in the watershed and will last for five days or less. No mitigation measures are recommended.

Breeding Birds

Common and special status birds and raptors may be temporarily disturbed by the noise and activity associated with dredging operations, no direct impacts to birds or their habitat are expected. Breeding birds are protected under the Migratory Bird Treaty Act; under this regulation, no disturbance or harm of breeding birds or their young is allowed. It is recommended that dredging activities take place outside of the breeding season (generally February-August) in order to avoid impacts to these species.

Western Pond Turtles

The proposed project will temporarily impact potential western pond turtle aquatic habitat, however no direct impacts are expected due to: 1) the lack of confirmed sightings of turtles at the reservoir and 2) the tendency and ability of turtles to avoid and flee from this type of disturbance. Increased siltation of waters within the reservoir is expected to be comparable to that caused by a large storm, therefore temporary increases in turbidity are not considered significant. No mitigation measures are required.

5.0 CONCLUSION

The Denniston Reservoir dredging project proposes the removal and disposal of approximately 400 cubic yards of sediment from the vicinity of the water intakes located at the base of the reservoir dam.

The project will result in impacts to approximately 0.03 acres of LCP and Corps wetlands. However, associated wetland impacts are within the scope of permitted activities in San Mateo County LCP wetlands for "dredging manmade reservoirs for water supply where wetlands may have formed, providing spoil disposal is carried out to avoid significant disruption to marine and wildlife habitats and water circulation." Within the Study Area, all project related impacts to wetlands will be temporary; therefore, no mitigation for these impacts is likely to be required.

Though special status plant and wildlife species are known to occur in the general vicinity of the Study Area, the proposed dredging project encompasses a small area (0.35 acres/16,000 sq ft) and will last for approximately two working days. Special status wildlife species known to occur in the vicinity of the Study Area are not expected to experience significant direct or indirect impacts as a result of this routine dredging operation. In addition, the project footprint has experienced similar disturbances during previous dredging operations, therefore there is little potential to impact special status plants that may occur on the banks of the reservoir.

6.0 REFERENCES

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Appendix A
Special Status Species Table

Appendix A. Special status species that have been recorded in San Mateo County in the vicinity of the Denniston Reservoir Study Area. List compiled from a review of records from the Half Moon Bay, Woodside, San Mateo, San Francisco South, and Montara Mountain USGS quadrangles in the CDFG Natural Diversity Data Base (2004), other CDFG lists and publications (Jennings and Hayes 1994; Zeiner et al. 1990), USFWS unofficial San Mateo County species lists (2005), and the CNPS electronic inventory (2004).

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
PLANTS			
Allium peninsulare var. *franciscanum* Franciscan onion	FSC, 1B	Cismontane woodland, valley and foothill grassland. Found on clay, often serpentinite at elevations of 100-300m. (*May-June*)	**Not present.** Suitable habitat and soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Amsinckia lunaris bent-flowered fiddleneck	1B	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. Found at elevations of 3-500m. (*March-June*)	**Not present.** Suitable habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos andersonii Santa Cruz manzanita	FSC, 1B	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Found on open sites and redwood forest at elevations of 60-700m. Known only from Santa Cruz Mountains. (*November-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos hookerii ssp. *fransicana* Fransican manzanita	1A	Chaparral. Formerly endemic to the San Francisco Bay Area but now only exists in cultivation. Elevations of 60-300 m. (*November-April*)	**Not present.** Suitable habitat not present on the site. This species is assumed extirpated from natural communities and was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Arctostaphylos hookerii spp. *ravenii* Presidio manzanita	FE, SE 1B	Chaparral, coastal prairie, coastal scrub, often on rocky serpentine slopes. Elevations of 20-215m. (*February-April*)	**Not present.** No manzanita present on site. This species is considered extirpated from natural communities and was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos imbricata Kings Mountain manzanita	SE, 1B	Chaparral, coastal scrub, often on sandstone outcrops. Found at elevations of 275-365m. (*February-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos montaraensis Montara manzanita	FSC, 1B	Chaparral and coastal scrub. Found on slopes and ridges at elevations of 150-500m. Endemic to San Mateo County. (*January-March*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos regismontana Kings Mountain manzanita	1B	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Found on granitic or sandstone soils at elevations of 305-730m. (*January-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	1B	Coastal dunes (mesic) and marshes and swamps (coastal salt, streamsides). Found at elevations of 0-30m. (*April-October*)	**Not present.** Within San Mateo County, this species is commonly associated with brackish/salt marsh habitat not present within the Study Area. This species was not observed during the site assessment or late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Centromadia parryi ssp. parryi pappose tarplant	1B	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkali sites. Found at elevations of 2-420m. (unknown)	**Not present.** Vernally wet alkali habitat not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Chorizanthe cuspidata var. *cuspidata* San Francisco Bay spineflower	FSC, 1B	Coastal bluff scrub, coastal dunes, coastal prairie, and coastal scrub. Found on terraces and slopes in sandy soil at elevations of 3-550m. (*April-August*)	**Not present.** Suitable sandy soils not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Chorizanthe robusta var. *robusta* robust spineflower	FE, 1B	Cismontane woodland (openings), coastal dunes, and coastal scrub. Found on terraces and slopes in sandy or gravelly soil at elevations of 3-300m. (*April-September*)	**Not present.** Suitable soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Cirsium andrewsii Franciscan thistle	1B	Mesic areas in broadleaved upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Sometimes on serpentine at elevations of 0-135m. (*March-July*)	**Not Present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir; however, in San Mateo County, this species is typically associated with seep habitats not present on the site. This species was not identified during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Cirsium occidentale var. *compactum* compact cobwebby thistle	FSC, 1B	Chaparral, coastal dunes, coastal prairie, coastal scrub at elevations of 0-150m. (*April-June*)	**Not Present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir. However, this species was not identified during the late February rare plant survey and is presumed extirpated from San Mateo County and the San Francisco Bay Area.
Collinsia multicolor San Francisco collinsia	1B	Closed-cone coniferous forest and coastal scrub. Sometimes found on serpentinite at elevations of 30-250m. (*March-May*)	**Not Present.** This species is typically found on north facing slopes with a dense overstory of live oak and buckeye. Serpentinite soils are not present within the Study Area.
Dirca occidentalis western leatherwood	1B	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. Found on brushy slopes, mesic sites mostly in mixed evergreen and foothill woodland communities at elevations of 50-395m. (*January-April*)	**Not Present.** In San Mateo County, this species is typically found in mixed evergreen plant communities on north facing slopes east of Skyline Ridge and was not observed during the site assessment or the late February rare plant survey.
Equisetum palustre marsh horsetail	3	Found in marshes and swamps at elevations of 45-1,000m. (Not Applicable)	**Not Present.** Suitable marsh habitat found on site along fringe of reservoir; however, this species was not located during site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Eriogonum luteolum var. *caninum* Tiburon buckwheat	3	Chaparral, coastal prairie, and valley and foothill grassland. Found on serpentinite at elevations of 10-500m. (*June-September*)	**Not present.** Serpentine soils not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Erysimum ammophilum coast wallflower	FSC, 1B	Maritime chaparral, coastal dunes, and coastal scrub. Found in sandy openings at elevations of 0-130m. (*February-June*)	**Not present.** Suitable sandy openings in coastal scrub/chaparral not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Fritillaria biflora var. *ineziana* Hillsborough chocolate lily	FSC, 1B	Cismontane woodland and valley and foothill grassland. Endemic to San Mateo County. Typically on serpentine at elevations of 90-160m. (*March-April*)	**Not present.** Suitable habitat with serpentine soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Fritillaria liliacea fragrant fritillary	FSC, 1B	Coastal scrub, valley and foothill grassland, and coastal prairie. Usually found on clay soils (often serpentine) at elevations of 3-410m. (*February-April*)	**Not present.** Suitable soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Gilia capitata ssp. *chamissonis* dune gilia	1B	Coastal dunes, coastal scrub with sandy soils from 2-200m. (*April-July*)	**Not present.** Suitable dune habitat and/or sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Grindelia hirsutula var. *maritima* San Francisco gumplant	FSC, 1B	Coastal scrub, coastal bluff scrub, and valley and foothill grassland. Found on sandy or serpentine slopes and sea bluffs at elevations of 15-400m. (*August-September*)	**Not present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir. However, this species was not located during the site assessment or the late February rare plant survey.
Helianthella castanea Diablo helianthella	FSC, 1B	Broadleaf upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland from 25-1,300m. (*April-June*)	**Not Present.** In San Mateo County, this species is typically associated with grassland habitat and grassy openings in wooded areas not located within the Study Area. This species was not observed during the site assessment or the late February rare plant survey.
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	FCS, 1B	Closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal prairie, and coastal scrub. Found on sandy soils at elevations of 5-350m. (*April-September*)	**Not present.** Suitable sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Horkelia marinensis Point Reyes horkelia	FSC, 1B	Coastal dunes, coastal prairie, and coastal scrub. Found on sandy soils at elevations of 5-350m. (*May-September*)	**Not present.** Suitable sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Layia carnosa beach layia	FE, SE, 1B	Coastal dunes. Usually found behind foredunes at elevations of 2-75m. (*March-July*)	**Not present.** Suitable dune habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Leptosiphon croceus coast yellow leptosiphon	1B	Coastal bluff scrub. Found at elevations from 10-150m. (*May*)	**Not present.** Suitable coastal bluff scrub not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Leptosiphon rosaceus rose leptosiphon	FSC, 1B	Coastal bluff scrub and coastal prairie. Found at elevations from 0-150m. (*April-June*)	**Not present.** Suitable coastal bluff scrub or coastal prairie habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Lessingia arachnoidea Crystal Springs lessingia	FSC, 1B	Coastal sage scrub, valley and foothill grassland, and cismontane woodland. Found on grassy slopes on serpentinite, sometime on roadsides at elevations of 60-200m. (*July-October*)	**Not present.** Suitable serpentinite soils not present on the site and s ite is below typical elevation range for this species. This species was not observed during the site assessment or the late February rare plant survey.
Lessingia germanorum San Francisco lessingia	FE, SE, 1B	Coastal scrub in open sandy soils relatively free of competing plants. Found at elevations of 20-125m. (*June-November*)	**Not present.** Suitable open sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Lupinus eximius San Mateo tree lupine	FSC, 3	Chaparral and coastal scrub. An evergreen shrub found at elevations of 90-550m. (*April-July*)	**Not present.** No evergreen lupine were identified within the Study Area during the site assessment or late February rare plant survey. Site is below typical elevation range for this species.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Malacothamnus arcuatus arcuate bush mallow	1B	This evergreen shrub is found in chaparral at elevations of 15-355m. (*April-September*)	**Not present.** Suitable chaparral habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Pentachaeta bellidiflora white-rayed pentachaeta	FE, SE, 1B	Found in valley and foothill grassland on open dry rocky slopes and grassy areas. Often on serpentinite at elevations of 35-620m. (*March-May*)	**Not present.** Suitable habitat with serpentinite soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcornflower	1B	Chaparral, coastal prairie, and coastal scrub. Found in mesic areas at elevations of 15-100m. (*March-June*)	**Not Present.** In San Mateo County, this species is located in ponded areas with impermeable clay soils not present within the Study Area. This species was not observed during the site assessment or the late February rare plant survey
Potentilla hickmanii Hickman's cinquefoil	FE, SE, 1B	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, and marshes and swamps. Found in freshwater marshes, seeps, and small streams in forested areas along the coast at elevations of 10-135m. (*April-August*)	**Not Present** Suitable streamside and marsh habitat present on site, and a documented occurrence of this species is located less than 3 miles away. However, this species was not identified during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Sanicula maritima adobe sanicle	FSC, SR, 1B	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie on moist clay or ultramafic soils from 30-240m. (*February-May*)	**Not present.** Suitable soils not present on the site. Known only from Potrero Hills area of San Francisco from before 1900. This species was not observed during the site assessment or the late February rare plant survey.
Silene verecunda ssp. *verecunda* San Francisco campion	FSC, 1B	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, and coastal prairie. Found on open slopes and exposed outcrops of mudstone or shale; one site on serpentine at elevations of 30-645m. (*March-August*)	**Not present.** Suitable open slopes with exposed mudstone and/or shale not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Triphysaria floribunda San Francisco owl's clover	FSC, 1B	Coastal prairie, coastal scrub, and valley and foothill grassland. Usually found on serpentinite at elevations of 10-160m. (*April-June*)	**Not present.** Suitable serpentinite soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Triquetrella californica coastal triquetrella	1B	Coastal bluff scrub and coastal scrub. Found at elevations from 10-100m. (Not Applicable)	**Low Potential.** Limited area suitable for coastal scrub species present on the site adjacent to Denniston Reservoir. However, mosses were not observed during the site assessment or late February rare plant survey.
Mammals			
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	FSC, CSC	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Very sensitive to human disturbance.	**Moderate potential.** May occur to forage over reservoir; no known roosting habitat available in vicinity.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area-
small-footed myotis *Myotis ciliolabrum*	FSC	Commonly found in arid uplands of California. Feeds on a variety of small flying insects. Seeks cover in caves, buildings, mines, crevices, and occasionally under bridges.	**Low potential.** May occur to forage over reservoir; Study Area is not typical of usual habitat.
long-eared myotis *Myotis evotis*	FSC	Primarily a forest associated species. Day roosts in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts include caves, mines and under bridges.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
fringed myotis *Myotis thysanodes*	FSC	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
long-legged myotis *Myotis volans*	FSC	Generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
Yuma myotis *Myotis yumanensis*	FSC, CSC	Known for its ability to survive in urbanized environments. Also found in heavily forested settings. Day roosts in buildings, trees, mines, caves, bridges and rock crevices. Night roosts associated with man-made structures.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
greater western mastiff bat *Eumops perotis californicus*	FSC, CSC	Found in a wide variety of habitat. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	FSC, CSC	Occurs in forest habitats of moderate canopy and moderate to dense understory. Also found in chaparral habitats. Feeds mainly on woody plants: live oak, maple, coffeeberry, alder, and elderberry	**Moderate potential.** May occur in habitats adjacent to reservoir and eucalyptus forest and in understory riparian habitats along Denniston Creek.
BIRDS			
American bittern *Botaurus lentiginosus*	FSC	Occurs in fresh emergent wetlands, often hiding, resting, and roosting solitarily amidst tall, dense, emergent vegetation, on ground, or near ground on log, stump, or on emergent plants.	**Moderate potential.** Freshwater emergent wetland present within reservoir and upstream along Denniston Creek.
Cooper's hawk *Accipiter cooperi*	CSC	Uses many habitats in winter and during migration; nests in deciduous and coniferous woodlands. Usually not found without dense tree stands, or patchy woodland habitat.	**Moderate potential.** Suitable habitat is present in woodland areas adjacent to reservoir. May roost and nest adjacent to Study Area and forage within Study Area.
sharp-shinned hawk *Accipiter striatus*	CSC	Uses many habitats in winter and during migration; breeds in oak, conifer, and riparian forests.	**Moderate potential.** Suitable habitat is present in woodland areas adjacent to reservoir. May roost and nest adjacent to Study Area and forage within Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
white-tailed kite *Elanus leucurus*	CFP	Forages in open to herbaceous stages of many habitats. Nests in shrubs and trees adjacent to grasslands.	**Moderate potential.** Suitable foraging habitat is present in coastal scrub areas and farmlands adjacent to reservoir. May roost and nest in vicinity of Study Area.
northern harrier *Circus cyaneus*	CSC	Forages in open to herbaceous stages of many habitats. Nests on ground in shrubby vegetation, usually near wetlands.	**Low potential.** May occur to forage over Study and in adjacent habitats. Unlikely to breed in nearby habitats.
golden eagle *Aquila chrysaetos*	CSC, CFP	Uses many habitats for foraging; breeds in cliffs or in remote large trees and structures.	**Low potential.** No known occurrences in region. Foraging habitat available within and adjacent to Study Area.
Vaux's swift *Chaetura vauxi*	CSC FSC	Forages over most terrains and habitats, often high in the air. Most important habitat requirement appears to be large hollow trees for nest sites.	**Low Potential.** Uncommon species; may occur to forage over Study Area. Potential breeding habitat available in nearby woodlands.
Allen's hummingbird *Selasphorus sasin*	FSC	Coastal scrub, valley foothill hardwood, valley foothill riparian habitats; also common in closed-cone pine-cypress, urban, and redwood habitats.	**Low potential.** Suitable foraging and breeding habitat available in coastal scrub habitat adjacent to Study Area. May occur incidentally within Study Area.
olive-sided flycatcher *Contopus cooperi*	FSC	Mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine. Requires large, tall trees, usually conifers for nesting and roosting.	**Low potential.** Coniferous forest not present on site, may occur as transient or to forage in the vicinity.
Pacific-slope flycatcher *Empidonax difficilis*	FSC	Widespread in warm moist woodlands, including valley foothill and montane riparian.	**Low potential.** May occur in riparian habitats up and downstream of Study Area. May occur incidentally within Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
purple martin *Progne subis*	CSC	Frequents old-growth, multi-layered, open forest and woodland with snags in the breeding season.	**Low Potential.** No old growth forest present on site, may occur as transient.
California thrasher *Toxostoma redivivum*	FSC	Common resident of foothills and lowlands in cismontane California. Occupies moderate to dense chaparral habitats and extensive thickets in young or open valley foothill riparian habitat.	**Low potential.** Suitable habitat available for this species in coastal scrub habitat adjacent to Study Area. May pass through Study Area occasionally.
yellow warbler *Dendroica petechia brewsteri*	CSC	Nests in riparian stands of willows, cottonwoods, aspens, sycamores, and alders. Also nests in montane shrubbery in open conifer forests.	**High potential.** Suitable breeding habitat is available for this species upstream and adjacent to the reservoir. May forage among emergent vegetation in reservoir.
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	FSC, CSC	Frequents low, dense vegetation near water including fresh to saline emergent wetlands. Brushy habitats used in migration. Forages among wetland herbs and shrubs for insects primarily.	**High potential.** Suitable emergent wetland vegetation breeding habitat available for this species within and adjacent to the Study Area.
tricolored blackbird *Agelaius tricolor*	FSC, CSC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs.	**High potential.** Cattail/tule habitat within reservoir provides suitable breeding habitat for this species.
AMPHIBIANS AND REPTILES			
California red-legged frog *Rana aurora draytonii*	FT, CSC	Ponds, pools, or in slow-moving perennial to ephemeral streams, where water remains long enough for breeding and development of young. Emergent or shoreline riparian vegetation is the preferred but not essential habitat.	**Present.** Egg masses observed during WRA site assessment. Study Area provides excellent aquatic and upland habitat for the species.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
western pond turtle *Clemmys marmorata*	CSC, FSC	Ponds and pools with woody debris, overhanging vegetation and rocky outcrops for basking and thermoregulation.	**High potential.** Suitable habitat available in reservoir though no known occurrences documented. Connectivity to other source populations may preclude occurrence.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE	Ponds, lakes, reservoirs, streams, and drainage ditches, that are bordered at least partially by dense emergent or riparian vegetation, and nearby grasslands and brush.	**Moderate potential.** Suitable habitat available in reservoir though no known occurrences documented. Connectivity to other source populations may preclude occurrence. Species is very uncommon in its former range.
FISH			
steelhead-Central California Coast ESU *Oncorhynchus mykiss*	FT, NMFS	Federal listing includes all runs from the Russian River, south to Soquel Creek, inclusive. Adults spawn in cool streams with a substrate of clean gravel and cobbles. Juveniles remain in the stream for one or more years before migrating to the sea.	**Not present.** Downstream barriers along Denniston Creek prevent steelhead from migrating upstream. Landlocked steelhead (resident trout) present above and below dam.
INVERTEBRATES			
bumblebee scarab beetle *Lichnanthe ursina*	FSC	Inhabits coastal sand dunes from Sonoma county south to San Mateo County	**Not present.** Sand dune habitat not present on or adjacent to Study Area
San Bruno elfin butterfly *Incisalia mossii bayensis*	FE	Found in coastal, mountainous area with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Larval host plant is *Sedum spathulifolium*.	**Not present.** Suitable habitat not available for this species at the Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Mission blue butterfly *Icaricia icarioides missionensis*	FE	Inhabits grasslands of the San Francisco Penisula. Three larval hostplants: *Lupinus albifrons, L. variicolor*, and *L. formosus*.	**Not present.** Suitable habitat not available for this species at the Study Area.
monarch butterfly *Danaus plexippus*		Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind protected tree groves, with nectar and water sources nearby.	**Moderate potential.** Suitable winter roost sites exist in tall eucalyptus up and downstream of reservoir and in the vicinity of the spoils disposal area.

*** Key to status codes:**

Status codes used above are:

FE - Federal Endangered
FT - Federal Threatened
FC - Federal Candidate
FPD - Federal Proposed Delisted
FSC - United States Fish and Wildlife Service Federal Species of Concern
NMFS - Species under the Jurisdiction of the National Marine Fisheries Service
SE - State Endangered
ST - State Threatened
CSC - CDFG Species of Special Concern, CSC (Draft) - 4 April 2001 Draft
CFP - California Fully Protected Species
None - No status given but rookery sites are monitored by CDFG
List 1B - CNPS 1B List, Endangered, Threatened, or Rare in California
List 2 - CNPS List 2 Plants that are rare, threatened, or endangered in California, but more common elsewhere
List 3 - CNPS List 3 Plants about which more information is needed - a review list

Appendix B
Plant species observed within the Denniston Reservoir Study Area, March 2005

Appendix B. Plant species observed within the Denniston Reservoir Study Area, March	
Scientific Name	**Common Name**
Acacia decurrens	green wattle
Achillea millefolium	yarrow
Anagalis arvensis	scarlet pimpernel
Artemisia californica	California sagebrush
Avena barbata	slender wild oat
Avena fatua	common wild oat
Baccharis pilularis	coyote brush
Brassica nigra	black mustard
Bromus diandrus	ripgut grass
Bromus hordeaceus	soft chess
Capsella bursa-pastoris	Shepard's purse
Carpobrutus edulis	ice plant
Cerastrium glomeratum	chickweed
Cirsium vulgare	bull thistle
Conium maculatum	poison hemlock
Convolvulus arvensis	bindweed
Cortaderia jubata	pampas gras
Cotoneaster pannosa	cotoneaster
Cyperus eragrostis	umbrella sedge
Cynosurus echinatus	dogtail grass
Cytisus scoparius	Scotch broom
Epilobium ciliatum ssp. watsonii	willow herb
Eriophyllum staechaedifolia	golden yarrow
Erodium botrys	filaree
Eucalyptus globulus	blue gum eucalyptus
Genista monosperma	French broom
Geranium dissectum	cut leaf geranium
Gnaphalium luteo-alba	common cudweed

Scientific Name	Common Name
Hordeum marinum ssp. gussoneanum	Mediterranean barley
Hordeum murinum ssp. leporinum	barley
Juncus effusus	soft rush
Juncus mexicanus	Mexican rush
Juncus patens	spreading rush
Lactuca serriola	prickly lettuce
Lolium multiflorum	Italian ryegrass
Lotus corniculatus	bird's foot trefoil
Malva sp.	mallow
Marah fabaceous	manroot
Medicago polymorpha	California burclover
Oenanthe sarmentosa	water parsley
Oenothera elata	evening primrose
Oxalis pes-caprae	Bermuda buttercup
Piciris echioides	bristly ox tongue
Plantago lanceolata	English plantain
Poa annua	annual hairgrass
Potentilla anserina	cinqefoil
Raphanus sativus	wild radish
Ribes sp.	currant
Rubus ursinus	blackberry
Rumex cispus	curly dock
Salix lasiolepis	arroyo willow
Scirpus californicus	hard-stemmed bulrush
Scrophularia californica	California figwort
Senecio milkanioides	German ivy
Senecio sylvaticus	woodland groundsel
Solanum americanum	American nightshade

Scientific Name	Common Name
Tropaeolum majus	nasturtium
Typha angustifolia	narrowleaf cattail
Urtica dioica	stinging nettle
Vicia sativa	common vetch
Vulpia myuros	six weeks fescue

Appendix C
List of wildlife species observed in the Study Area on February 2, 2004

Appendix C. List of wildlife species observed in the Study Area on February 2, 2004			
Common Name	**Scientific Name**	**Status**	**Notes**
Birds			
Red-tailed hawk	*Buteo jamaicensis*	common	Roosting in eucalyptus trees
American coot	*Fulca americana*	common	Several observed in reservoir
Kingfisher	*Ceryle alcyon*	common	Foraging in reservoir
Anna's hummingbird	*Calypte anna*	common	Observed throughout
Chesnut-backed chickadee	*Poecile rufescens*	common	Singing in willow riparian upstream
Wrentit	*Chamaea fasciata*	common	Heard in adjacent scrub habitat
Hermit thrush	*Catharus guttatus*	common	Downstream along creek
Golden-crowned sparrow	*Zonotrichia atricapilla*	common	Observed in adjacent scrub habitat
Song sparrow	*Melospiza melodia*	common	Observed throughout
Amphibians			
California red-legged frog	*Rana aurora draytonii*	federally threatened	CRLF eggs observed in reservoir in late January 2005
Pacific chorus frog	*Pseudocaris regilla*	common	Heard throughout

Appendix D
Representative Site Photographs

Appendix C. Representative Site Photographs

Above: Overview of dredged spoils disposal area.

Below: Close-up of disposal area.

Photographs taken on February 2, 2005.

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Appendix C. Representative Site Photographs

Above: Dense riparian corridor along Denniston Creek below the reservoir dam.

Below: Opening in riparian thicket above Denniston Creek below the reservoir dam.

Photographs taken on February 2, 2005.

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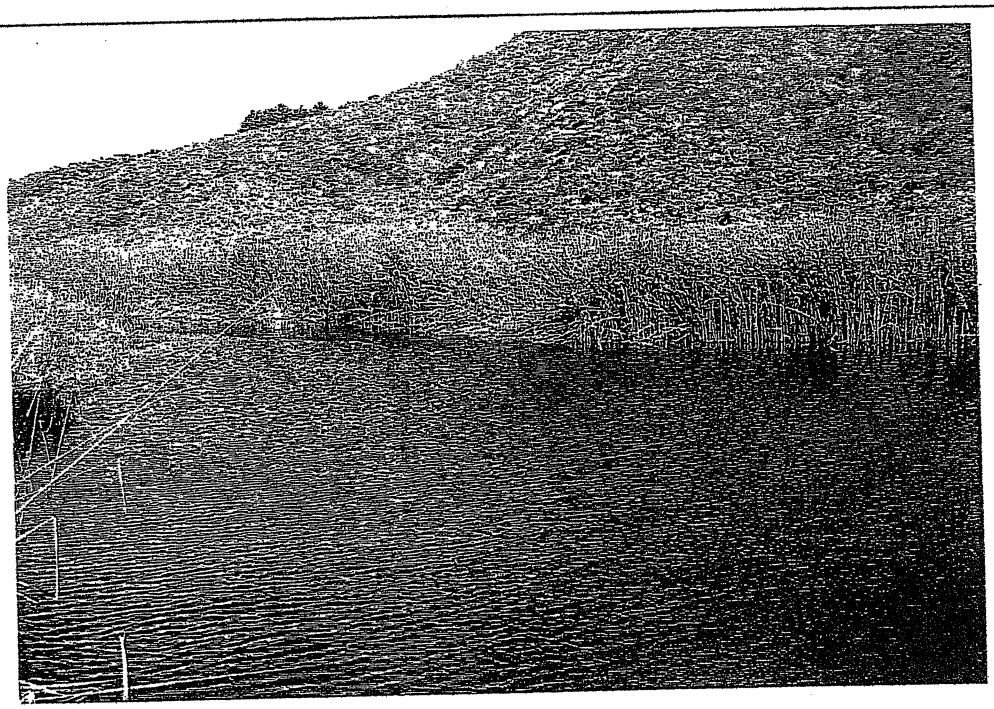

Appendix C. Representative Site Photographs

Above: Denniston Reservoir proposed dredging site.

Below: Dam face of Denniston Reservoir within footprint of proposed dredging activities.

Photographs taken February 6, 2005.

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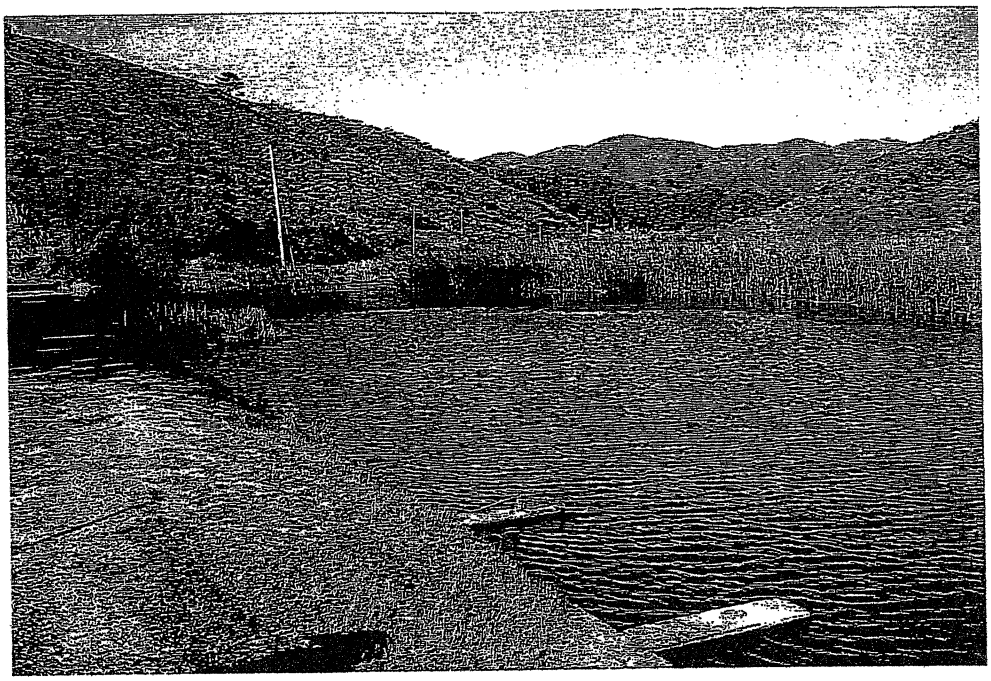
ENVIRONMENTAL CONSULTANTS



Appendix C. Representative Site Photographs

Above: Upland habitats adjacent to proposed dredging area (left upper corner of reservoir).

Below: Resident rainbow trout in Denniston Reservoir

Photographs taken on February 2, 2005.

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Date	flow	Raw tric	Sump
4/24/14	400	9.98	7.4
4/23/14		4.06	7.9
4/22/14		3.93	8.4
4/21/14		3.83	8.6
4/20/14		3.61	8.8
4/19/14		5.77	8.4
4/18/14		5.98	9.1
Start up			

County of San Mateo - Planning and Building Department

ATTACHMENT F

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT 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: *Denniston Reservoir Maintenance Dredging*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN2014-00142

OWNER: Coastside County Water District, Peninsula Open Space Trust (POST), and Golden Gate National Recreation Area (GGNRA)

APPLICANT: Coastside County Water District (CCWD)

ASSESSOR'S PARCEL NOs.: 037-320-150 (CCWD), 037-320-330 (POST), and 037-320-340 (GGNRA)

PROJECT LOCATION: Portion of Denniston Creek located between Denniston Water Treatment Plant and Denniston Reservoir, approximately 0.5 miles of Cabrillo Highway between El Granada and Moss Beach

PROJECT DESCRIPTION: Coastal Development Permit for the maintenance of Denniston Reservoir. Maintenance includes dredging and removal of the annual sediment load, not to exceed 450 cubic yards, and clearing by hand of vegetation from the creek upstream from the reservoir as needed.

The scope of this project is similar to the previous Coastal Development Permit authorizing maintenance dredging. The Initial Study and draft Mitigated Negative Declaration were circulated on February 13, 2013, with a comment period extending until March 14, 2013. The Mitigated Negative Declaration was certified on April 24, 2013. The work authorized by that permit was for more extensive dredging and restoration work. The current application is for similar but less extensive dredging and clearing in the same areas.

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has prepared the initial study for the above project and, based upon substantial evidence in the record, finds that:

1. The project will not adversely affect water or air quality or increase noise levels substantially.

2. The project will not have adverse impacts on the flora or fauna of the area.

3. The project will not degrade the aesthetic quality of the area.

4. The project will not have adverse impacts on traffic or land use.

5. In addition, the project will not:

   a) Create impacts which have the potential to degrade the quality of the environment.

   b) Create impacts which achieve short-term environmental goals to the disadvantage of long-term environmental goals.

   c) Create impacts for a project which are individually limited, but cumulatively considerable.

   d) Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project, as mitigated, is not significant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: The work period for completing the work within the creek shall be restricted to low or no stream flow and dry weather and shall be timed with awareness of precipitation forecasts. No work shall occur during wet weather. Wet weather is defined when there has been 1/4-inch of rain in a 24 hour period. In addition, no work shall occur during a dry out period of 24 hours after the above referenced wet weather.

Mitigation Measure 2: No equipment shall operate in the flowing stream at any time except as may be necessary to construct a dewatering system or divert water flow around the work site. If a dewatering system is proposed, the applicant shall identify the dewatering method and procedure and submit a plan to the Current Planning Section for review prior to project activities.

Mitigation Measure 3: No tules shall be removed before July 1. After July 1, the tules shall be surveyed for California red-legged (CRLF) frog egg masses. If egg masses are found, no work shall commence. The applicant shall consult with DFW and the USFWS.

Mitigation Measure 4: Prior to the onset of any project-related activities, a qualified biologist shall identify appropriate areas to receive CRLF adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain similar habitat to the original site, not be affected by project activities, and be free of exotic predatory species (i.e., bullfrogs, crayfish) to the best of the qualified biologist's knowledge. Translocation shall only be performed by a qualified biologist.

Mitigation Measure 5: Additional guidelines for surveys and handling CRLF described under "Additional guidelines for surveys and handling of the California red-legged frog and the California tiger salamander" shall be adhered to. Guidelines can be found at: http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/es_survey.htm

Mitigation Measure 6: Nets or bare hands shall be used to capture CRLF. The qualified biologist shall not use soaps, oils, creams, lotions, repellants, or solvents of any sort on their hands before and during periods when they are capturing and translocating these species.

Mitigation Measure 7: Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement.

Mitigation Measure 8: Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by a biological monitor on foot to displace wildlife and prevent them from being crushed.

Mitigation Measure 9: Rescued fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site and the number and species of fish capture and relocated. The record shall be provided to DFW within two weeks of the completion of the work season or project, whichever comes first.

Mitigation Measure 10: Prior to capturing fish, the most appropriate release location(s) shall be determined, using the following criteria:

a. Water temperature shall be similar as the capture location.

b. There shall be ample habitat for the captured fish.

c. There shall be a low likelihood for the fish to reenter the work site or become impinged on the exclusion net or screen.

Mitigation Measure 11: Handling of salmonids shall be minimized. However, when handling is necessary, the applicant shall always wet hands or nets prior to touching fish.

Mitigation Measure 12: The applicant shall temporarily hold fish in cool, shaded, aerated water in a flow-through live car and protect fish from jostling and noise and do not remove fish from this container until time of release.

Mitigation Measure 13: The applicant shall measure air and water temperatures periodically. A thermometer shall be placed in holding containers and, if necessary, periodic partial water changes shall be conducted to maintain a stable water temperature. If water temperature reaches or exceeds 18°C, fish shall be released and rescue operations ceased.

Mitigation Measure 14: Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age classes to avoid predation.

Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

Mitigation Measure 15: If feasible, the applicant shall perform initial fish relocation efforts several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional fish capture passes immediately prior to construction.

Mitigation Measure 16: If mortality during relocation exceeds five percent, capturing efforts shall be stopped and the applicant shall contact immediately the appropriate agencies.

Mitigation Measure 17: The applicant shall conduct relocation activities in the morning when the temperatures are cooler.

Mitigation Measure 18: Additional measures to minimize injury and mortality of salmonids during fish and relocation and dewatering activities, if necessary, shall be implemented as described in Par IX, pages 52 and 53 of the Salmonid Habitat Restoration Manual. This document can be found at: http://www.dfg.ca.gov/fish/resources/habitatmanual.asp

Mitigation Measure 19: All construction within the river channel shall occur during daylight hours.

Mitigation Measure 20: Construction equipment, including the dredger and associated trucks, shall be positioned and operated from the graded roadway or atop the dam to avoid adverse impacts to the reservoir.

Mitigation Measure 21: When hauling dredged material from the reservoir to the spoils site located approximately 0.5 miles east of the reservoir, the trucks shall only use the previously graded dirt roadways; no previously undisturbed areas shall be disturbed as a result of these activities.

Mitigation Measure 22: Only those areas indicated on the plans and specifically described in the application materials and permits may be dredged. The dredged material may only be deposited in the spoils location identified on the plans and in the manner described in the applications and permit discussion.

Mitigation Measure 23: All dredging and tule removal activities shall only occur during dry conditions and during the months of August, September, and early October (prior to October 15).

Mitigation Measure 24: Prior to beginning any construction or grading activities, the applicant shall implement the approved Erosion and Sediment Control Plan and shall maintain the approved measures throughout the duration of the project. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive

forces. Said plan shall adhere to the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) "General Construction and Site Supervision Guidelines," including:

a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 15 and April 15. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees and drainage courses.

g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

h. Performing clearing and earth-moving activities only during dry weather.

i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilizing designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. The contractor shall train and provide instructions to all employees and subcontractors regarding the construction of best management practices.

Mitigation Measure 25: While the applicant must adhere to the approved Erosion and Sediment Control Plan, it is the responsibility of the civil engineer and/or construction manager to implement the Best Management Practices (BMPs) that are best suited for this project site. If site conditions require additional measures in order to comply with the SMCWPPP and prevent erosion and sediment discharge into the creek, said measures shall be installed immediately. If additional measures are necessary, the Erosion and Sediment Control Plan shall be updated to

reflect those changes and shall be resubmitted to the Planning and Building Department for review. The County reserves the right to require additional (or entirely different) erosion and sediment control measures during dredging operations if the approved plan proves to be inadequate for the unique characteristics of each job site.

Mitigation Measure 26: Spoils shall be piled to a height no taller than two feet and shall have less than a 5:1 slope. Erosion and sediment controls shall be installed prior to beginning any dredging activities and must be maintained throughout the rainy season (October 15 to April 15).

Mitigation Measure 27: A certified biologist shall conduct a visual site inspection prior to commencement of the annual dredging operations to determine whether any special status plant species are present in and around the project sites. The biologist shall thoroughly inspect the area in and adjacent to Denniston Reservoir, along the haul road to the spoils site, and the spoils site itself. No work shall begin until the biologist has determined either: (1) no special status plant species are present at the project sites or (2) appropriate mitigation measures have been implemented such that no special status plant species are likely to be harmed during the project.

Mitigation Measure 28: A certified biologist shall conduct a visual inspection of the project sites prior to commencement of the yearly dredging activities. Should any special status wildlife species be detected, the biologist shall take necessary measures to ensure no adverse impacts to said species. No work shall begin until the biologist has determined either (1) no special status wildlife species are present at the project sites or (2) appropriate mitigation measures have been implemented such that no special status wildlife species are likely to be harmed during the project. The biologist shall remain on-site for the duration of the project and shall continue to monitor the reservoir, surrounding wetlands, roadway, and spoils site for any evidence that a protected wildlife species may be present.

Mitigation Measure 29: The applicant shall apply for and obtain an approved Streambed Alteration Agreement from the California Department of Fish and Game prior to each dredging operation. The applicant shall forward a copy of said permit to the Planning and Building Department prior to commencement of the yearly dredging activities.

Mitigation Measure 30: Dredging/hauling vehicles shall be limited to 10 miles per hour within the project vicinity in order to avoid physical harm to snakes and frogs that may be present on the dam and roadway.

Mitigation Measure 31: The applicant shall only operate machinery during daylight hours and shall use noise-attenuating devices wherever possible to reduce noise disturbance as much as possible (ideally below 45-dBA). Noise levels produced by the proposed activities shall not exceed the 80-dBA level at any one moment. All dredging operations shall be prohibited on Sunday and any national holiday.

Mitigation Measure 32: All standing equipment shall be surrounded by a gated snake fence to prevent San Francisco garter snakes from being harmed by said equipment. This fence shall consist of sheets of 4" by 8" plywood embedded into the ground a minimum of 6 inches and glued together to eliminate gaps. The fence shall be supported by steel poles and shall have one-

way escape funnels to allow any snakes or frogs that find their way into the enclosure to escape. A sealing gate shall be included and the gate opened only for vehicles to pass in and out. The fence shall be installed under the supervision of a qualified biologist who has experience with this type of fence.

Mitigation Measure 33: An underwater fence surrounding the dredging/tule removal areas shall be installed according to the specifications described in the permit application and illustrated in Figure 11 (see Attachment C) in order to exclude steelhead and California red-legged frogs from the immediate work areas.

Mitigation Measure 34: A maximum of 800 cubic yards of sediment may be dredged from Denniston Reservoir and deposited at the spoils site during the first year of the permit. 400 cubic yards shall be the maximum amount of dredging for each subsequent year. No more than 2,400 cubic yards of silt and sediment may be dredged over the 5-year term of the Coastal Development Permit.

Mitigation Measure 35: The applicant shall implement the approved Dust Control Plan prior to beginning any dredging activities and shall be maintained for the duration of the project.

RESPONSIBLE AGENCY CONSULTATION: Referrals sent to:

None

INITIAL STUDY: The San Mateo County Planning Department has prepared the Environmental Evaluation of this project and has found that probable environmental impacts, as mitigated, are not significant. The scope of the project has not changed from that analyzed in a previous Initial Study. This Initial Study led to a Mitigated Negative Declaration that was certified by the Planning Commission at the April 24, 2013, hearing, with final approval on May 9, 2013. The Planning Department is reusing that Initial Study, dated February 7, 2013. A copy of the initial study is attached.

REVIEW PERIOD: July 31, 2014 – September 1, 2014

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning Division, 455 County Center, Second Floor, Redwood City, no later than 5:00 p.m., September 1, 2014.

CONTACT PERSON

Steven Rosen, Project Planner
650/363-1814
srosen@smcgov.org

County of San Mateo
Planning and Building Department

SUBSEQUENT INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed By Current Planning Section)

I. BACKGROUND

Project Title: Denniston Reservoir 5-year Maintenance Program Amendment

File No.: PLN 2008-00302

Project Location: Portion of Denniston Creek located between Denniston Water Treatment Plant and Denniston Reservoir, approximately 0.5 miles of Cabrillo Highway between El Granada and Moss Beach

Assessor's Parcel Nos.: 037-320-150 (CCWD), 037-320-330 (POST), and 037-320-340 (GGNRA)

Applicant: Coastside County Water District (CCWD)

Owner: Coastside County Water District, Peninsula Open Space Trust (POST), and Golden Gate National Recreation Area (GGNRA)

Date Environmental Information Form Submitted: May 17, 2012

PROJECT DESCRIPTION

Coastside County Water District (CCWD) is proposing an amendment to their 2009 Coastal Development Permit (CDP) for a 5-year Maintenance Program. The 2009 permit was for a 5-year Maintenance Program including 2,400 cubic yards of reservoir sediment dredging. The proposed amendment is to authorize work to reestablish 1,000 linear feet of Denniston Creek between the Denniston Water Treatment Plant and the Denniston Reservoir to improve water quality for the surrounding habitat and reservoir.

Eight to ten 20' x 15' keyways will be cleared through the vegetation using hand tools at approximately 100-foot intervals. This will allow for access for an excavator to skim a 1-foot deep by 4-foot wide path to reestablish the channel. Four hundred cubic yards of sediment will be dredged followed by 400 cubic yards the subsequent year. If needed, 400 cubic yards will be dredged around reservoir intakes. Construction will begin at the reservoir and proceed upstream toward the treatment plant. Equipment access will be taken from the existing roadway adjacent to the project area. Dredged materials will be deposited approximately 0.5-mile northeast of the creek, at a 90,000 sq. ft. clearing historically used for this purpose since 1985. All work will occur during the dry season (August through October) and no construction equipment will be used in the stream. The existing pool located just before the reservoir will collect sediment as the creek stabilizes. Project construction will be carried out by the California Conservation Corps.

II. ENVIRONMENTAL ANALYSIS

Any controversial answers or answers needing clarification are explained on an attached sheet. For source, refer to pages 18 and 19.

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
1. LAND SUITABILITY AND GEOLOGY Will (or could) this project:						
a. Involve a unique landform or biological area, such as beaches, sand dunes, marshes, tidelands, or San Francisco Bay? **Not located in such an area.**	X					B,F,O
b. Involve construction on slope of 15% or greater? **Not located in such an area.**	X					E,I
c. Be located in an area of soil instability (subsidence, landslide or severe erosion)? **See Answers to Questions for discussion.**			X			Bc,D
d. Be located on, or adjacent to a known earthquake fault? **See Answers to Questions for discussion.**		X				Bc,D
e. Involve Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts? **Not located in such an area.**	X					M
f. Cause erosion or siltation? **See Answers to Questions for discussion.**			X			M,I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
g. Result in damage to soil capability or loss of agricultural land? **No conversion of agricultural soils proposed.**	X					A,M
h. Be located within a flood hazard area? **See Answers to Questions for discussion.**		X				G
i. Be located in an area where a high water table may adversely affect land use? **Not located in such an area.**	X					D
j. Affect a natural drainage channel or streambed, or watercourse? **See Answers to Questions for discussion.**			X			E
2. VEGETATION AND WILDLIFE Will (or could) this project:						
a. Affect federal or state listed rare or endangered species of plant life in the project area? **See Answers to Questions for discussion.**			X			F
b. Involve cutting of heritage or significant trees as defined in the County Heritage Tree and Significant Tree Ordinance? **None proposed.**	X					I,A
c. Be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species? **See Answers to Questions for discussion.**			X			F

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
d. Significantly affect fish, wildlife, reptiles, or plant life? **See Answers to Questions for discussion.**			X			I
e. Be located inside or within 200 feet of a marine or wildlife reserve? **Not located inside or adjacent to such an area.**	X					E,F,O
f. Infringe on any sensitive habitats? **See Answers to Questions for discussion.**			X			F
g. Involve clearing land that is 5,000 sq. ft. or greater (1,000 sq. ft. within a County Scenic Corridor), that has slopes greater than 20% or that is in a sensitive habitat or buffer zone? **No land clearing proposed.**	X					I,F,Bb
3. PHYSICAL RESOURCES Will (or could) this project:						
a. Result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, oil, trees, minerals or topsoil)? **None proposed.**	X					I
b. Involve grading in excess of 150 cubic yards? **See Answers to Questions for discussion.**		X				I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
c. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement? **Lands are not subject to a Williamson Act Contract or Open Space Easement.**	X					I
d. Affect any existing or potential agricultural uses? **None proposed.**	X					A,K,M
4. <u>AIR QUALITY, WATER QUALITY, SONIC</u> Will (or could) this project:						
a. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area? **See Answers to Questions for discussion.**		X				I,N,R
b. Involve the burning of any material, including brush, trees and construction materials? **None proposed.**	X					I
c. Be expected to result in the generation of noise levels in excess of those currently existing in the area, after construction? **None proposed.**	X					Ba,I
d. Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances, or radioactive material? **None proposed.**	X					I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
e. Be subject to noise levels in excess of levels determined appropriate according to the County Noise Ordinance or other standard? **Not located in such an area.**	X					A,Ba,Bc
f. Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard? **None proposed.**	X					I
g. Generate polluted or increased surface water runoff or affect groundwater resources? **See Answers to Questions for discussion.**		X				I
h. Require installation of a septic tank/leachfield sewage disposal system or require hookup to an existing collection system which is at or over capacity? **None proposed.**	X					S
5. <u>TRANSPORTATION</u> Will (or could) this project:						
a. Affect access to commercial establishments, schools, parks, etc.? **None proposed.**	X					A,I
b. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns? **None proposed.**	X					A,I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
c. Result in noticeable changes in vehicular traffic patterns or volumes (including bicycles)? **None proposed.**	X					I
d. Involve the use of off-road vehicles of any kind (such as trail bikes)? **None proposed.**	X					I
e. Result in or increase traffic hazards? **None proposed.**	X					S
f. Provide for alternative transportation amenities such as bike racks? **None proposed.**	X					I
g. Generate traffic which will adversely affect the traffic carrying capacity of any roadway? **None proposed.**	X					S
6. LAND USE AND GENERAL PLANS Will (or could) this project:						
a. Result in the congregating of more than 50 people on a regular basis? **None proposed.**	X					I
b. Result in the introduction of activities not currently found within the community? **No change in land use or activities.**	X					I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
c. Employ equipment which could interfere with existing communication and/or defense systems? **None proposed.**	X					I
d. Result in any changes in land use, either on or off the project site? **No change in land use.**	X					I
e. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)? **See Answers to Questions for discussion.**	X					I,Q,S
f. Adversely affect the capacity of any public facilities (streets, highways, freeways, public transit, schools, parks, police, fire, hospitals), public utilities (electrical, water and gas supply lines, sewage and storm drain discharge lines, sanitary landfills) or public works serving the site? **None proposed.**	X					I,S
g. Generate any demands that will cause a public facility or utility to reach or exceed its capacity? **None proposed.**	X					I,S
h. Be adjacent to or within 500 feet of an existing or planned public facility? **Not located near such an area.**	X					A

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
i. Create significant amounts of solid waste or litter? **None proposed.**	X					I
j. Substantially increase fossil fuel consumption (electricity, oil, natural gas, coal, etc.)? **None proposed.**	X					I
k. Require an amendment to or exception from adopted general plans, specific plans, or community policies or goals? **None proposed.**	X					B
l. Involve a change of zoning? **Parcel zoning is unchanged.**	X					C
m. Require the relocation of people or businesses? **None proposed.**	X					I
n. Reduce the supply of low-income housing? **None proposed.**	X					I
o. Result in possible interference with an emergency response plan or emergency evacuation plan? **None proposed.**	X					S
p. Result in creation of or exposure to a potential health hazard? **None proposed.**	X					S

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
7. AESTHETIC, CULTURAL AND HISTORIC Will (or could) this project:						
a. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor? **See Answers to Questions for discussion.**		X				A,Bb
b. Obstruct scenic views from existing residential areas, public lands, public water body, or roads? **No. Project is at or below grade.**	X					A,I
c. Involve the construction of buildings or structures in excess of three stories or 36 feet in height? **No buildings or structures proposed.**	X					I
d. Directly or indirectly affect historical or archaeological resources on or near the site? **See Answers to Questions for discussion.**		X				H
e. Visually intrude into an area having natural scenic qualities? **None proposed.**	X					A,I

III. **RESPONSIBLE AGENCIES.** Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)	X		Section 404 Permit
State Water Resources Control Board		X	
Regional Water Quality Control Board	X		Section 401 Certification
State Department of Public Health	X		Consultation
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service	X		Consultation
Coastal Commission	X		Appeals Jurisdiction
City		X	
Sewer/Water District:		X	
Other: California Department of Fish and Wildlife	X		Streambed Alteration Agreement
Other: NOAA National Marine Fisheries Services	X		Consultation

IV. MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed.		X

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

***Note**: New mitigations measures are Numbers 1 - 19. Mitigation measures carried over under the certified 2009 Mitigated Negative Declaration are numbered 20-35.*

Mitigation Measure 1: The work period for completing the work within the creek shall be restricted to low or no stream flow and dry weather and shall be timed with awareness of precipitation forecasts. No work shall occur during wet weather. Wet weather is defined when there has been 1/4-inch of rain in a 24 hour period. In addition, no work shall occur during a dry out period of 24 hours after the above referenced wet weather.

Mitigation Measure 2: No equipment shall operate in the flowing stream at any time except as may be necessary to construct a dewatering system or divert water flow around the work site. If a dewatering system is proposed, the applicant shall identify the dewatering method and procedure and submit a plan to the Current Planning Section for review prior to project activities.

Mitigation Measure 3: No tules shall be removed before July 1. After July 1, the tules shall be surveyed for California red-legged (CRLF) frog egg masses. If egg masses are found, no work shall commence. The applicant shall consult with DFW and the USFWS.

Mitigation Measure 4: Prior to the onset of any project-related activities, a qualified biologist shall identify appropriate areas to receive CRLF adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain similar habitat to the original site, not be affected by project activities, and be free of exotic predatory species (i.e., bullfrogs, crayfish) to the best of the qualified biologist's knowledge. Translocation shall only be performed by a qualified biologist.

Mitigation Measure 5: Additional guidelines for surveys and handling CRLF described under "Additional guidelines for surveys and handling of the California red-legged frog and the California tiger salamander" shall be adhered to. Guidelines can be found at: http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/es_survey.htm

Mitigation Measure 6: Nets or bare hands shall be used to capture CRLF. The qualified biologist shall not use soaps, oils, creams, lotions, repellants, or solvents of any sort on their hands before and during periods when they are capturing and translocating these species.

Mitigation Measure 7: Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement.

Mitigation Measure 8: Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by a biological monitor on foot to displace wildlife and prevent them from being crushed.

Mitigation Measure 9: Rescued fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site and the number and species of fish capture and relocated. The record shall be provided to DFW within two weeks of the completion of the work season or project, whichever comes first.

Mitigation Measure 10: Prior to capturing fish, the most appropriate release location(s) shall be determined, using the following criteria:

a. Water temperature shall be similar as the capture location.

b. There shall be ample habitat for the captured fish.

c. There shall be a low likelihood for the fish to reenter the work site or become impinged on the exclusion net or screen.

Mitigation Measure 11: Handling of salmonids shall be minimized. However, when handling is necessary, the applicant shall always wet hands or nets prior to touching fish.

Mitigation Measure 12: The applicant shall temporarily hold fish in cool, shaded, aerated water in a flow-through live car and protect fish from jostling and noise and do not remove fish from this container until time of release.

Mitigation Measure 13: The applicant shall measure air and water temperatures periodically. A thermometer shall be placed in holding containers and, if necessary, periodic partial water changes shall be conducted to maintain a stable water temperature. If water temperature reaches or exceeds 18°C, fish shall be released and rescue operations ceased.

Mitigation Measure 14: Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

Mitigation Measure 15: If feasible, the applicant shall perform initial fish relocation efforts several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional fish capture passes immediately prior to construction.

Mitigation Measure 16: If mortality during relocation exceeds five percent, capturing efforts shall be stopped and the applicant shall contact immediately the appropriate agencies.

Mitigation Measure 17: The applicant shall conduct relocation activities in the morning when the temperatures are cooler.

Mitigation Measure 18: Additional measures to minimize injury and mortality of salmonids during fish and relocation and dewatering activities, if necessary, shall be implemented as described in Par IX, pages 52 and 53 of the Salmonid Habitat Restoration Manual. This document can be found at: http://www.dfg.ca.gov/fish/resources/habitatmanual.asp

Mitigation Measure 19: All construction within the river channel shall occur during daylight hours.

Mitigation Measure 20: Construction equipment, including the dredger and associated trucks, shall be positioned and operated from the graded roadway or atop the dam to avoid adverse impacts to the reservoir.

Mitigation Measure 21: When hauling dredged material from the reservoir to the spoils site located approximately 0.5 miles east of the reservoir, the trucks shall only use the previously graded dirt roadways; no previously undisturbed areas shall be disturbed as a result of these activities.

Mitigation Measure 22: Only those areas indicated on the plans and specifically described in the application materials and permits may be dredged. The dredged material may only be deposited in the spoils location identified on the plans and in the manner described in the applications and permit discussion.

Mitigation Measure 23: All dredging and tule removal activities shall only occur during dry conditions and during the months of August, September, and early October (prior to October 15).

Mitigation Measure 24: Prior to beginning any construction or grading activities, the applicant shall implement the approved Erosion and Sediment Control Plan and shall maintain the approved measures throughout the duration of the project. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) "General Construction and Site Supervision Guidelines," including:

a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 15 and April 15. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees and drainage courses.

g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

h. Performing clearing and earth-moving activities only during dry weather.

i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilizing designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. The contractor shall train and provide instructions to all employees and subcontractors regarding the construction of best management practices.

Mitigation Measure 25: While the applicant must adhere to the approved Erosion and Sediment Control Plan, it is the responsibility of the civil engineer and/or construction manager to implement the Best Management Practices (BMPs) that are best suited for this project site. If site conditions require additional measures in order to comply with the SMCWPPP and prevent erosion and sediment discharge into the creek, said measures shall be installed immediately. If additional measures are necessary, the Erosion and Sediment Control Plan shall be updated to reflect those changes and shall be resubmitted to the Planning and Building Department for review. The County reserves the right to require additional (or entirely different) erosion and sediment control measures during dredging operations if the approved plan proves to be inadequate for the unique characteristics of each job site.

Mitigation Measure 26: Spoils shall be piled to a height no taller than two feet and shall have less than a 5:1 slope. Erosion and sediment controls shall be installed prior to beginning any dredging activities and must be maintained throughout the rainy season (October 15 to April 15).

Mitigation Measure 27: A certified biologist shall conduct a visual site inspection prior to commencement of the annual dredging operations to determine whether any special status plant species are present in and around the project sites. The biologist shall thoroughly inspect the area in and adjacent to Denniston Reservoir, along the haul road to the spoils site, and the spoils site itself. No work shall begin until the biologist has determined either: (1) no special status plant species are present at the project sites or (2) appropriate mitigation measures have been implemented such that no special status plant species are likely to be harmed during the project.

Mitigation Measure 28: A certified biologist shall conduct a visual inspection of the project sites prior to commencement of the yearly dredging activities. Should any special status wildlife species be detected, the biologist shall take necessary measures to ensure no adverse impacts to said species. No work shall begin until the biologist has determined either (1) no special status wildlife species are present at the project sites or (2) appropriate mitigation measures have been implemented such that no special status wildlife species are likely to be harmed during the project. The biologist shall remain on-site for the duration of the project and shall continue to monitor the reservoir, surrounding wetlands, roadway, and spoils site for any evidence that a protected wildlife species may be present.

Mitigation Measure 29: The applicant shall apply for and obtain an approved Streambed Alteration Agreement from the California Department of Fish and Game prior to each dredging operation. The applicant shall forward a copy of said permit to the Planning and Building Department prior to commencement of the yearly dredging activities.

Mitigation Measure 30: Dredging/hauling vehicles shall be limited to 10 miles per hour within the project vicinity in order to avoid physical harm to snakes and frogs that may be present on the dam and roadway.

Mitigation Measure 31: The applicant shall only operate machinery during daylight hours and shall use noise-attenuating devices wherever possible to reduce noise disturbance as much as possible (ideally below 45-dBA). Noise levels produced by the proposed activities shall not exceed the 80-dBA level at any one moment. All dredging operations shall be prohibited on Sunday and any national holiday.

Mitigation Measure 32: All standing equipment shall be surrounded by a gated snake fence to prevent San Francisco garter snakes from being harmed by said equipment. This fence shall consist of sheets of 4" by 8" plywood embedded into the ground a minimum of 6 inches and glued together to eliminate gaps. The fence shall be supported by steel poles and shall have one-way escape funnels to allow any snakes or frogs that find their way into the enclosure to escape. A sealing gate shall be included and the gate opened only for vehicles to pass in and out. The fence shall be installed under the supervision of a qualified biologist who has experience with this type of fence.

Mitigation Measure 33: An underwater fence surrounding the dredging/tule removal areas shall be installed according to the specifications described in the permit application and illustrated in Figure 11 (see Attachment C) in order to exclude steelhead and California red-legged frogs from the immediate work areas.

Mitigation Measure 34: A maximum of 800 cubic yards of sediment may be dredged from Denniston Reservoir and deposited at the spoils site during the first year of the permit. 400 cubic yards shall be the maximum amount of dredging for each subsequent year. No more than 2,400 cubic yards of silt and sediment may be dredged over the 5-year term of the Coastal Development Permit.

Mitigation Measure 35: The applicant shall implement the approved Dust Control Plan prior to beginning any dredging activities and shall be maintained for the duration of the project.

V. MANDATORY FINDINGS OF SIGNIFICANCE

		Yes	No
1.	Does the project 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, or eliminate important examples of the major periods of California history or prehistory?		X
2.	Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?		X
3.	Does the project have possible environmental effects which are individually limited, but cumulatively considerable?		X
4.	Would the project cause substantial adverse effects on human beings, either directly or indirectly?		X

On the basis of this initial evaluation:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Current Planning Section.

__X__ 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 of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

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

Melissa Ross

2/7/13
Date

Project Planner
(Title)

VI. SOURCE LIST

A. Field Inspection

B. County General Plan 1986

a. General Plan Chapters 1-16
b. Local Coastal Program (LCP) (Area Plan)
c. Skyline Area General Plan Amendment
d. Montara-Moss Beach-El Granada Community Plan
e. Emerald Lake Hills Community Plan

C. County Ordinance Code

D. Geotechnical Maps

1. USGS Basic Data Contributions

a. #43 Landslide Susceptibility
b. #44 Active Faults
c. #45 High Water Table

2. Geotechnical Hazards Synthesis Maps

E. USGS Quadrangle Maps, San Mateo County 1970 Series (See F. and H.)

F. San Mateo County Rare and Endangered Species Maps, or Sensitive Habitats Maps

G. Flood Insurance Rate Map – National Flood Insurance Program

H. County Archaeologic Resource Inventory (Prepared by S. Dietz, A.C.R.S.) Procedures for Protection of Historic and Cultural Properties – 36 CFR 800 (See R.)

I. Project Plans or EIF

J. Airport Land Use Committee Plans, San Mateo County Airports Plan

K. Aerial Photography or Real Estate Atlas – REDI

1. Aerial Photographs, 1941, 1953, 1956, 1960, 1963, 1970
2. Aerial Photographs, 1981
3. Coast Aerial Photos/Slides, San Francisco County Line to Año Nuevo Point, 1971
4. Historic Photos, 1928-1937

L. Williamson Act Maps

M. Soil Survey, San Mateo Area, U.S. Department of Agriculture, May 1961

N. Air Pollution Isopleth Maps – Bay Area Air Pollution Control District

O. California Natural Areas Coordinating Council Maps (See F. and H.)

P. Forest Resources Study (1971)

Q. Experience with Other Projects of this Size and Nature

R. Environmental Regulations and Standards:

Federal	–	Review Procedures for CDBG Programs	24 CFR Part 58
	–	NEPA 24 CFR 1500-1508	
	–	Protection of Historic and Cultural Properties	36 CFR Part 800
	–	National Register of Historic Places	
	–	Floodplain Management	Executive Order 11988
	–	Protection of Wetlands	Executive Order 11990
	–	Endangered and Threatened Species	
	–	Noise Abatement and Control	24 CFR Part 51B
	–	Explosive and Flammable Operations	24 CFR 51C
	–	Toxic Chemicals/Radioactive Materials	HUD 79-33
	–	Airport Clear Zones and APZ	24 CFR 51D
State	–	Ambient Air Quality Standards	Article 4, Section 1092
	–	Noise Insulation Standards	

S. Consultation with Departments and Agencies:

a. County Health Department
b. City Fire Department
c. California Department of Forestry
d. Department of Public Works
e. Disaster Preparedness Office
f. Other

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COUNTY OF SAN MATEO
Planning and Building Department

Subsequent Initial Study Pursuant to CEQA
Project Narrative and Answers to Questions for the Subsequent Negative Declaration
File Number: PLN 2008-00302
Denniston Reservoir 5-year Maintenance Program Amendment

PROJECT DESCRIPTION

Coastside County Water District (CCWD) is proposing an amendment to their 2009 Coastal Development Permit (CDP) for a 5-year Maintenance Program. The 2009 permit was for a 5-year Maintenance Program including 2,400 cubic yards of reservoir sediment dredging. The proposed amendment is to authorize work to reestablish 1,000 linear feet of Denniston Creek between the Denniston Water Treatment Plant and the Denniston Reservoir to improve water quality for the surrounding habitat and reservoir.

Eight to ten 20' x 15' keyways will be cleared through the vegetation using hand tools at approximately 100-foot intervals. This will allow for access for an excavator to skim a 1-foot deep by 4-foot wide path to reestablish the channel. Four hundred cubic yards of sediment will be dredged followed by 400 cubic yards the subsequent year. If needed, 400 cubic yards will be dredged around reservoir intakes. Construction will begin at the reservoir and proceed upstream toward the treatment plant. Equipment access will be taken from the existing roadway adjacent to the project area. Dredged materials will be deposited approximately 0.5-mile northeast of the creek, at a 90,000 sq. ft. clearing historically used for this purpose since 1985. All work will occur during the dry season (August through October) and no construction equipment will be used in the stream. The existing pool located just before the reservoir will collect sediment as the creek stabilizes. Project construction will be carried out by the California Conservation Corps.

ANSWERS TO QUESTIONS

Note: *New mitigations measures are Numbers 1 - 19. Mitigation measures carried over under the certified 2009 Mitigated Negative Declaration are numbered 20-35. All mitigation measures are located on the Subsequent Initial Study Checklist.*

1. LAND SUITABILITY AND GEOLOGY

c. Will (or could) this project be located in an area of soil instability (subsidence, landslide or severe erosion)?

Yes. Significant Unless Mitigated. The project site is located within Level I (areas least susceptible to landsliding) or Level II (low susceptibility to landsliding where slopes are less than 15%) as identified on the Landslide Susceptibility Map (San Mateo County, 1972). Although the project is located within low landslide susceptibility areas, the submitted Biological Impact Report notes the highly erodible granitic soils present within the Denniston Creek watershed. A combination of soil characteristics and past winter storms has led to siltation and sedimentation to occur in the creek channel and, consequently, has reduced

water flow and quality to the downstream reservoir and surrounding habitat. To reduce the potential for increased erosion during maintenance activities Mitigation Measure 1 is recommended.

Mitigation Measure 1: The work period for completing the work within the creek shall be restricted to low or no stream flow and dry weather and shall be timed with awareness of precipitation forecasts. No work shall occur during wet weather. Wet weather is defined when there has been 1/4-inch of rain in a 24-hour period. In addition, no work shall occur during a dry out period of 24 hours after the above referenced wet weather.

d. Will (or could) this project be located on, or adjacent to a known earthquake fault?

Yes. Not Significant. Seal Cove fault is located approximately 0.3 miles westward of the project site; the San Andreas Fault is located approximately 6 miles northeast of the site as mapped on the State of California Earthquake Fault Zones, Montara Mountain Quadrangle, 1982. Channel reestablishment will qualitatively improve surface water flow to the reservoir to achieve full impoundment capacity without facility expansion. Structural integrity of the facility is unaffected by this project.

f. Will (or could) this project cause erosion or siltation?

Yes. Significant Unless Mitigated. Some degree of erosion and sedimentation is inherent in dredging activities and will continue to occur after project completion until creek equilibrium is established. The previously certified Mitigated Negative Declaration included a measure to minimize potential impacts to less than significant levels through the submittal of an Erosion and Sediment Control Plan adhering to the San Mateo Countywide Water Pollution Prevention Program "General Construction and Site Supervision Guidelines." Please refer to the Initial Study Checklist Mitigation Measure 24.

h. Will (or could) this project be located within a flood hazard area?

Yes. Not Significant. The project area is designated by the Federal Emergency Management Agency (FEMA) as Zone A (areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage). Because a detailed analysis by FEMA has not been conducted for this area, no depths or base flood elevations are available. Dredge materials will be deposited in Zone X (area of minimal flood hazard, usually depicted on FIRMs (Flood Insurance Rate Maps) as above the 500-year flood level), formerly Zone C. The project is not expected to result in significant impacts since the carrying capacity of the creek during a flood event will be improved after sediment removal.

j. Will (or could) this project affect a natural drainage channel or streambed, or watercourse?

Yes. Significant Unless Mitigated. Eight to ten 20' x 15' keyways will be grubbed by hand to allow for excavator access to skim a 1-foot deep by 4-foot wide path along the existing creek line to reestablish the channel. All equipment (excavator and dump trucks) will take access from the existing dirt roadway for dredging operations; no new roads will be constructed nor will additional vegetation be removed along the roadway. Mitigation Measure 24 (please refer to the Initial Study Checklist for all mitigation measures) includes the submittal of an erosion and sediment control plan to address potential erosion from the roadway into the creek. Sediment removal is expected to improve pool and stream habitat for aquatic species as well as improve water quality for domestic use.

A previously approved Lake or Streambed Alteration Agreement (1600-2007-0480-R3) issued by California Department of Fish and Wildlife (DFW) has been amended to include channel dredging. Mitigation measures recommended by DFW are included as Mitigation Measures 1 - 19.

2. VEGETATION AND WILDLIFE

a. Will (or could) this project affect federal or state listed rare or endangered species of plant life in the project area?

Yes. Significant Unless Mitigated. Identified as emergent wetlands in the Biological Impact Report (Donaldson and Associates, March 2005; supplemental reports by Jim Steele, January 2008 and June 2012), Denniston Creek provides breeding habitat for California red-legged frog (CRLF) and retreat and feeding habitat for the San Francisco garter snake (SFGS) though no occurrences of either species were observed within the project area during the biological survey. Highly erodible granitic soils and past winter storms have led to siltation resulting in reduced water quality and creek capacity. Hand cut keyways and sediment removal performed under the recommended conditions of approval will minimize significant adverse impacts to fish and wildlife to less than significant levels and result in greater water clarity and improved habitat along the existing channel flow line.

Additionally, a number of DFW and USFWS species of concern may be affected by the project amendment. Suitable breeding habitat is available for the Western pond turtle, yellow warbler, saltmarsh common yellowthroat, and tricolored blackbird within the area of the reservoir and creek. Within the same area, roosting habitat is present for the fringed myotis, long-eared myotis, long-legged myotis, Yuma myotis, Cooper's hawk, sharp-shinned hawk, white-tailed hawk, and monarch butterfly.

To minimize potentially significant impacts to less than significant levels, the following mitigation measures are recommended:

Mitigation Measure 2: No equipment shall operate in the flowing stream at any time except as may be necessary to construct a dewatering system or divert water flow around the work site. If a dewatering system is proposed, the applicant shall identify the dewatering method and procedure and submit a plan to the Current Planning Section for review prior to project activities.

Mitigation Measure 3: No tules shall be removed before July 1. After July 1, the tules shall be surveyed for California red-legged frog (CRLF) egg masses. If egg masses are found, no work shall commence. The applicant shall consult with DFW and the USFWS.

Mitigation Measure 4: Prior to the onset of any project-related activities, a qualified biologist shall identify appropriate areas to receive CRLF adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain similar habitat to the original site, not be affected by project activities, and be free of exotic predatory species (i.e., bullfrogs, crayfish) to the best of the qualified biologist's knowledge. Translocation shall only be performed by a qualified biologist.

Mitigation Measure 5: Additional guidelines for surveys and handling CRLF described under "Additional guidelines for surveys and handling of the California red-legged frog and the California tiger salamander" shall be adhered to. Guidelines can be found at: http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/es_survey.htm

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Mitigation Measure 7: Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement.

Mitigation Measure 8: Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by a biological monitor on foot to displace wildlife and prevent them from being crushed.

Mitigation Measure 9: Rescued fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site and the number and species of fish capture and relocated. The record shall be

provided to DFW within two weeks of the completion of the work season or project, whichever comes first.

Mitigation Measure 10: Prior to capturing fish, the most appropriate release location(s) shall be determined, using the following criteria:

a. Water temperature shall be similar as the capture location.

b. There shall be ample habitat for the captured fish.

c. There shall be a low likelihood for the fish to reenter the work site or become impinged on the exclusion net or screen.

Mitigation Measure 11: Handling of salmonids shall be minimized. However, when handling is necessary, the applicant shall always wet hands or nets prior to touching fish.

Mitigation Measure 12: The applicant shall temporarily hold fish in cool, shaded, aerated water in a flow-through live car and protect fish from jostling and noise and do not remove fish from this container until time of release.

Mitigation Measure 13: The applicant shall measure air and water temperatures periodically. A thermometer shall be placed in holding containers and, if necessary, periodic partial water changes shall be conducted to maintain a stable water temperature. If water temperature reaches or exceeds 18°C, fish shall be released and rescue operations ceased.

Mitigation Measure 14: Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

Mitigation Measure 15: If feasible, the applicant shall perform initial fish relocation efforts several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional fish capture passes immediately prior to construction.

Mitigation Measure 16: If mortality during relocation exceeds five percent, capturing efforts shall be stopped and the applicant shall contact immediately the appropriate agencies.

Mitigation Measure 17: The applicant shall conduct relocation activities in the morning when the temperatures are cooler.

Mitigation Measure 18: Additional measures to minimize injury and mortality of salmonids during fish and relocation and dewatering activities, if necessary, shall be implemented as described in Par IX, pages 52 and 53 of the Salmonid Habitat Restoration Manual. This document can be found at: http://www.dfg.ca.gov/fish/resources/habitatmanual.asp

Mitigation Measure 19: All construction within the river channel shall occur during daylight hours.

c. **Will (or could) this project be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species?**

Yes. Significant Unless Mitigated. Please refer to the discussion and mitigation measures outline in Section 2.a., above.

d. **Will (or could) this project significantly affect fish, wildlife, reptiles, or plant life?**

Yes. Significant Unless Mitigated. Please refer to the discussion and mitigation measures outline in Section 2.a., above

f. **Will (or could) this project infringe on any sensitive habitats?**

Yes. Significant Unless Mitigated. Please refer to the discussion and mitigation measures outline in Section 2.a., above

3. PHYSICAL RESOURCES

b. **Will (or could) this project involve grading in excess of 150 cubic yards?**

Yes. Not Significant. Up to 1,200 cubic yards of sediment will be removed from the creek channel by excavator, placed in dump trucks and transported 0.5-mile to the deposit location historically used for this purposed since 1985.

4. AIR QUALITY, WATER QUALITY, SONIC

a. **Will (or could) this project generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?**

Yes. Not Significant. Equipment may temporarily generate pollutants during construction. Dust control measures, as a previous mitigation measure, and compliance with California Air Resources Board In-Use Off-Road Diesel Vehicle Regulations will reduce the potential effects to less than significant levels.

g. **Will (or could) this project generate polluted or increased surface water runoff or affect groundwater resources?**

Yes. Not Significant. There may be a temporary increase in surface water runoff during the rainy season following project completion as any disturbed areas along the channel stabilize. Sediment is expected to collect along the channel and in the downstream pool above the reservoir. Sediment removal will occur once this year and once the following year. As creek equilibrium is achieved, sedimentation will lessen. Future maintenance is subject to subsequent permitting and environmental review.

Domestic water quality supply to the reservoir is expected to improve following creek channel dredging which addresses the California Department of Public Health concerns regarding the raw water supply for this treatment plant.

6. LAND USE AND GENERAL PLANS

e. **Will (or could) this project serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?**

No. This project does not seek to expand existing reservoir capacity, only to improve water quality, habitat and full impoundment of the existing facility.

7. AESTHETIC, CULTURAL AND HISTORIC

a. **Will (or could) this project be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?**

Yes. Not Significant. The project is located within the Cabrillo Highway (Highway 1) County Scenic Corridor but will not be visible due to the existing topography, surrounding development and vegetation.

d. **Will (or could) this project directly or indirectly affect historical or archaeological resources on or near the site?**

Yes, Not Significant: It is unlikely archaeological resources would be discovered given the past dredging activities in the project area. Initial permit approval of the 5-year maintenance agreement requires all activities to be halted until a qualified archaeologist has evaluated the site and notified and consulted with the Planning Department prior to resuming activities. No new mitigation measures are required since this condition is still in effect.

Denniston Reservoir

Maintenance Dredging Project

Denniston Creek, San Mateo County

Project Description Narrative

Project Sponsor:
Coastside County Water District
766 Main Street
Half Moon Bay, CA 94019

Contact:
Joe Guistino, Superintendent of Operations
650/ 726-4405 office
650/726-5245 FAX
e-mail: jguistino@coastsidewater.org

Introduction: The Coastside Water District is proposing to continue annual maintenance dredging around the water intake pipe at its Denniston Reservoir facility on Denniston Creek in western San Mateo County. The District has applied for a Coastal Development Permit for the removal of up to 450 cubic yards of sediment annually for 10 consecutive years from an area around the District's intake pipes near Denniston Dam. The sediment removed would be transported to the District's spoils disposal site ~1/2 mile NE of the reservoir along an existing road.

Project Location: Denniston Reservoir is located a short distance (~1 mile) NE of the Half Moon Bay Airport and N of El Granada in western San Mateo County. Figure 1 depicts the spoils area. Figure 2 shows the project location on a USGS topographic map. Figure 3 is a site plan for sediment removal. Figure 4 is a portion of the applicable Assessor's Parcel Map. It depicts the District's easements and landownership in the project vicinity.

Background: The Denniston Reservoir surface water diversion facility was established in 1973, subsequently upgraded, and is an important source of water supply for Coastside County Water District customers including residents and businesses in Half Moon Bay, El Granada, Princeton and other nearby areas. The reservoir was originally built in the 1930s as a source of agricultural water supply. The District has an appropriation permit to divert surface water at the dam, but the reservoir is not operated as a storage facility. It is a sediment settling basin, water depth regulator and the source of water supply for CCWD's Denniston Project which includes the water rights, intake pipes, a pump station adjacent to the reservoir, pipelines that transport

raw water to the Denniston Treatment Plant a short distance upstream, the Treatment Plant, a 1.5 million gallon (MG) treated water storage tank and pipelines that transport the treated water to the District's distribution system. The Denniston project has supplied 175 to 228 MG of water annually, equivalent to ~18-28% of the District's recent total supply.

The Denniston Creek watershed contains areas of highly erodible granitic soils. Subsequently, Denniston Reservoir has been subject to significant episodic surges of silt and sediment from landslides and the erosive forces of rainfall runoff during winter storms. The impoundment capacity of the reservoir has been greatly reduced over time through the accumulation of sediment.

In 1997 and 2009 the District received a Coastal Development Permit for annual maintenance dredging. The term of the permit was 5 years and it has expired with the last dredging in October 2014. This application is for continued maintenance of an area around the intake pipes similar to the earlier permits and for 10 year duration.

The need for continuing dredging is a finding by the CA Department of Public Health (Lacy E, Jan 02, 2008) that the pond must be dredged to reduce silt and vegetation effects near the inlet pipe.

Purpose of the Project: The purpose of this project is to allow the District to undertake annual maintenance dredging around water intake pipes near the face of the dam to remove silt and sediment that threatens water supply operations and reduces water quality. Additional hand clearing will be done in Denniston Creek upstream of the pond. This clearing is needed to promote cleaner water supply and wildlife habitat.

Description of Work: Construction of the project will involve excavating sediment in and around the area of intake pipes using an excavator positioned on the top of the dam or access road at the westerly end of the dam. Figure 3 depicts the area where dredging would occur. Figure 7 shows photographs of the site. The equipment that would be used has a reach of ~50 feet which defines the limit of dredging from the shoreline. The equipment would be positioned on the graded surface on top of the bank and access road and back from the surface of the water. When work is completed, the depth of the water in the dredged portion of the reservoir would be approximately 10 feet below the spillway elevation.

The work would be done annually in August, September or October to avoid the breeding season of the California red-legged frog (CRLF) and would require 2-7 working days each year. The equipment would include an excavator and one or two trucks. A qualified biologist monitor would be present to determine risk to special status species, i.e. the San Francisco garter snake (SFGS) and CRLF at the pond, road and dump site. The monitor will inspect the operations area

each day and no work will begin or continue without the biologist's authorization. Records will be kept of inspections and results.

The sequence of work would typically be as follows:

1. Tules upstream of the pond site would be hand excavated and stacked in piles to drain.
2. The excavator would be positioned on the dam or road/bank of reservoir.
3. A hay bale fence (doubling as filter intercept) excluding SFGS would be arranged along the standing equipment.
4. The excavator bucket would slowly extract sediment from the bottom, pause at the surface to allow settling of sediments and water to drain, and dumped into the truck.
5. The truck would drain water before moving and then proceed to the spoils site ½ mile upstream. Hay bales would intercept drain water.
6. The spoils site will include hay bales to filter runoff water and spoils will be dumped upgrade of the bails.
7. Any piled vegetation will be collected at the close of the operation and transported to the spoils site.

Spoils Disposal Site and Waste Discharge Plan: The spoils site is a designated area dedicated for spoils drying and is located ½ mile to the East (upstream). The site is located in a eucalyptus grove on a low bench in a side canyon. It is accessed via a 260 fool long, 10 foot wide double track road that climbs about 20 feet to a relatively level opening, where three areas are available or historically used for spoils deposition. Each area has relatively gradual slopes with berms at the lower ends. Filter bails will be added to filter sediment where water drains past the berms. This drain water will be deflected into vegetation and is anticipated to soak into surrounding soil before reaching the creek.

Biology: The biological characteristics of the project area were described in a Biological Report prepared by WRA, Inc. for the larger project anticipated during an earlier permit application. The conditions remain unchanged except that sediment continues to encroach into the water diversion area and diminish sediment settling capacity and reduce open water habitat. A relevant summary of that report and our recent observations follow:

WRA identified two plant communities in the study area: The reservoir is classified as an emergent wetland and the spoils disposal site as a eucalyptus forest type. In the WRA site assessment by botanists, 61 plant species were observed in the study area. Surveys for two special status plants with the potential to occur in the study area were conducted, but none were observed and none believed to be present.

Thirty special status animal species have been document in western San Mateo County. Thirteen species are considered to have a moderate potential for occurrence and five have a

high potential for occurrence. There are occurrences for California Red-legged frog (*Rana aurora draytonii*) (a California Species of Concern and Federal Threatened Species) in Denniston Creek and ten documented occurrences of the SF garter snake (*Thamnophis sirtalis tetratania*) by the Montera Mountain USGS quadrangle map. There are no documented sightings of SFGS in Denniston creek although there was a reference to a possible sighting over 25 years ago by Sean Barry (UC Davis, student). Recent trapping efforts for SF garter snake by the CA Department of Fish and Game and USFWS were unsuccessful. The possible sighting could have been the CA red-sided garter snake which is a common mistake. The common garter snake is found in this drainage which makes a genetically isolated population of SFGS unlikely. CRLF are regularly observed in the reservoir and trout were recorded in the reservoir. A survey approximately 10 years ago by EIP Inc of Sacramento found bull frogs in the drainage. The dam and downstream blockages were in place at the time of Endangered Species Act (ESA) listing of steelhead trout so the reservoir fish are not considered as having ESA status. A barrier to upstream steelhead migration also exists at the mouth of Denniston Creek in Princeton.

The District recognizes that the maintenance dredging work must be carried out in a manner that will not harm any special status species. By limiting the amount of dredging to no more than 450 cubic yards over 2-7 working days, the amount of silt and sediment suspended in a small area of the water column would not be greater than what occurs naturally during large storm events throughout the creek. These levels are regularly survived by both SFGS and CRLF and would not occur during a sensitive life history cycle. Also, only a small portion (~5-10%) of the existing rushes and cattails in the pond would be affected. The resulting open area will benefit trout and CRLF by increasing effective habitat edge.

The construction work would not alter the sides of the dam and would minimally disturb areas above the water line to avoid any impact to a potential SFGS. A monitor will ensure proper operation and workers will be instructed in proper identification and protection techniques for sensitive species. If any CRLF or SFGS species are detected all work will cease and the animal allowed to escape the area of operations. Conducting operations in September or October will avoid breeding season for CRLF and nesting periods for wetland birds. For additional information, please see the WRA report.

Permits: San Mateo County: The CA Government Code Sections 53091 (d) and (e) exempts the Water District from review under the County building code ordinance and zone ordinance with respect to location and construction of facilities for the transmission of water. Accordingly, this project would not require a grading permit and no zoning approvals are required.

Utility systems are not exempt from review under the Coastal Act. Pursuant to its adopted Local Coastal Program, the San Mateo County requires Coastal Development Permits for all development in the Coastal Development District, including public works facilities used for the

transmission of water, that are not otherwise exempt (Section 6328.5 of the County Zoning Code). However, Section 6328.5 © exempts "repair and maintenance activities that do not result in the addition to, or enlargement or expansion of, the object of such repair and maintenance activities."

The Water District interprets the proposed regular maintenance dredging of Denniston Reservoir as exempt under Sec 6328.5 (d) because the project would not enlarge or expand the District's system and would have no effect on the number, location or type of new connections that the District is permitted to install under the adopted LCP. Also, the project would not be subject to the exception to the exemption (Sec 6328.5 (d) (1) (b)) relating to placement of material in coastal streams because the dredging would only remove material and not add it to Denniston Creek.

US Army Corp of Engineers: Under the "Tulloch Rule" (National Wildlife Federation et. al. V. Tulluch; US Army Corp of Engineers Regulations issued on August 25, 1993, American Mining Congress V. Corp of Engineers, 1997, and Corp/EPA Guidance Regarding Regulation of Certain Activities in Light of American Mining Congress V. Corp of Engineers), the Army Corp of Engineers has no regulatory authority over dredging activity that results in no discharge into waters of the US other than "incidental fallback." In the American Mining Congress decision the Court of Appeal defined "incidental fallback" as the redeposit of dredged material in substantially the same spot as the initial removal. The Corp and EPA in subsequent regulatory guidance confirmed that dredging activities involving only incidental fallback do not require a Sec 404 permit under the Clean Water Act and in 2001 clarified the definition of "incidental fallback" in 40 CFR part 232 (2) (ii): Incidental fallback is the redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the US when such material falls back to substantially the same place as the initial removal. Examples of incidental fallback include soil that is disturbed when dirt is shoveled and the back-spill comes off a bucket when such small volume of soil or dirt falls into substantially the same place from which it was initially removed. The proposed annual maintenance dredging would be entirely consistent with the Tulloch Rule.

California Department of Fish and Wildlife: The project will require a renewal of the Streambed Alteration Agreement between the Department of Fish and Wildlife and the District. An application has been filed. The District has incorporated safeguards satisfying the DFW identified concerns in earlier permits.

CEQA Review: The Water District is the project sponsor and Lead Agency under the CA Environmental Quality Act (CEQA). The District is considering the project as potentially qualified as a Negative Declaration (NEGDEC) pending comments. All impacts are averted by avoidance measures described in previous and current replies by agencies. Ordinarily, the project could be

considered as Categorically Exempt under Class 1 because it involves the ".maintenance ...of an existing public....facility...involving negligible or no expansion of use..." The project would also potentially qualify for a Class 4 CatEx which covers the minor public...alterations in the condition of land, water and/or vegetation...Examples include,...(g) maintenance dredging where the spoil is deposited in a spoil area authorized by all applicable state and federal regulatory agencies.

Since the only issue outside of the CATEX is potential impacts to species, avoidance measures are applied and a NEGDEC will be circulated. The District is committed to reviewing all evidence and has developed a work program to ensure that an exception to the exemption regarding potential significant effect will not apply. Otherwise the appropriate CEQA process will be followed.

SAN MATEO COUNTY

BIOLOGICAL IMPACT REPORT

Denniston Reservoir Dredging Project

OWNER/APPLICANT

Name: Coastside County Water District

766 Main Street, Half Moon Bay, CA 94019

Contact: Joe Guistino, Superintendent of Operations

Office: 650-726-4405 FAX: 650-726-5245

PROJECT LOCATION

Denniston Reservoir on Denniston Creek, ½ mile NW of HWY 1.

APN: 037-320-1`50, 037-320-280

PRINCIPAL INVESTIGATORS

Jim Steele, Steele Biological Consulting (SBC), 10750 Pingree Road, Clearlake Oaks, CA 95423; 916-834-6165
Reference Report (WRA, 2005) by Donaldson and Associates, 627 Spokane Ave., Albany. CA 94706; 510-528-3684

REPORT SUMMARY

Maintenance dredging at Denniston Reservoir consists of the equipment parking, dredging, spoils transport and dumping footprints. Two plant communities occur consisting of emergent wetland and eucalyptus forest. The WRA report found records for 61 plant species known to occur in the area. No special status species were found during site surveys. SBC surveyed the operations footprints and found no special plant species habitats due to traffic ground disturbance. The WRA fauna survey found 30 documented special status species in the vicinity of the project area and five species with a high potential or documented occurrence in the project area. These are CA red-legged frog (CRLF), western pond turtle (WPT), yellow warbler, saltmarsh common yellow throat and tricolored blackbird. There are ten occurrences of the SFGS in the Montara Mountain Quadrangle but no confirmed occurrence in Denniston Creek. Rainbow trout occur in the system.

Maintenance dredging at 450 cubic yards/annum will take place for two to seven days within August, September or October at non-breeding periods. Aquatic and terrestrial fencing will exclude sensitive wildlife species; no sensitive plant species will be at risk. Hay bails will filter runoff sediments and aquatic plants will be hand cut. A biological monitor will oversee each equipment movement. No

residual operational impacts are expected and the resulting larger open water environment and edge effect will benefit CRLF, SFGS, WPT and resident trout.

PROJECT AND PROPERTY DESCRIPTION

Denniston Reservoir is located a short distance (~1 mile) NE of the Half Moon Bay Airport and N of El Granada in western San Mateo County. Referring to the "Planning Document Narrative," Figure 1 depicts the spoils area. Figure 2 shows the project location on a USGS topographic map. Figure 3 is a dredging plan of the site. Figure 4 is a portion of the applicable Assessor's Parcel Map. It depicts the District's easements and landownership in the project vicinity.

The Denniston Creek watershed contains areas of highly erodible granitic soils. The Denniston Reservoir has been subject to significant episodic surges of silt and sediment from landslides and the erosive forces of rainfall runoff during significant winter storms. The impoundment capacity of the reservoir has been greatly reduced over time through the accumulation of sediment.

The reservoir was originally built in the 1930s as a source of agricultural water supply. The Denniston Reservoir is still a source for agricultural water and has been an important source of water supply for Coastside County Water District customers including residents and businesses in Half Moon Bay, El Granada, Princeton and other nearby areas since 1973.

METHODOLOGY

SBC surveyed the project area while reviewing data from the CA Natural Diversity Database. The project area is described in the Planning Document Narrative. The rest of the survey was reviewing the equipment haul route and the spoils dumping area.

RESULTS

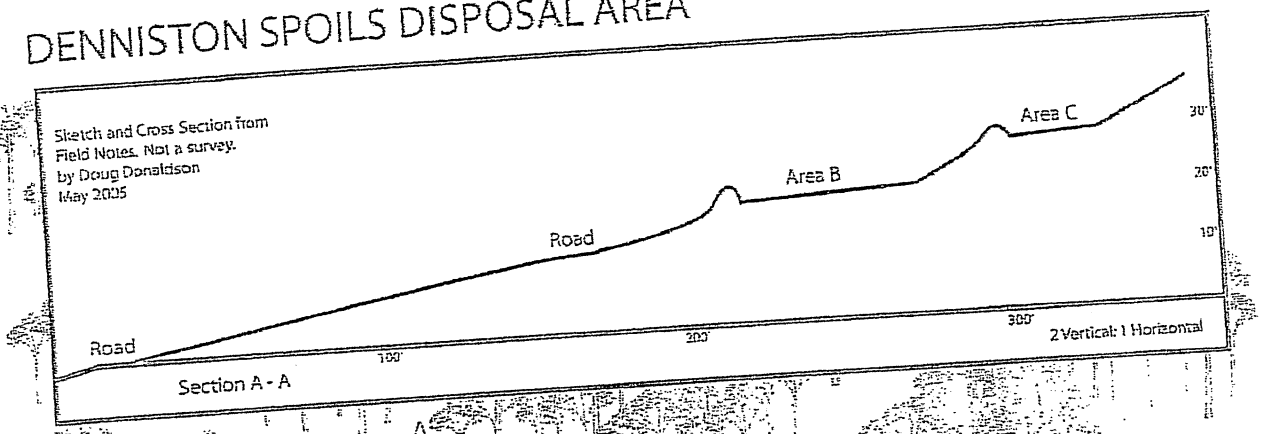
The proposed activities were reviewed and revised to fit the proposed operations and provide additional protection measures. The WRA 2005 report is provided (attached) as detailed biological information. The recommendations section is superseded by the recommendations provided in the Planning Document Narrative (PDN), e.g. no wildlife will be handled. The dredging season is projected as between August and October. The dredging activity will use a pause (at the surface) bucket method to reduce water suspended sediments and will take place over two or up to seven days. Other details are in the PDN.

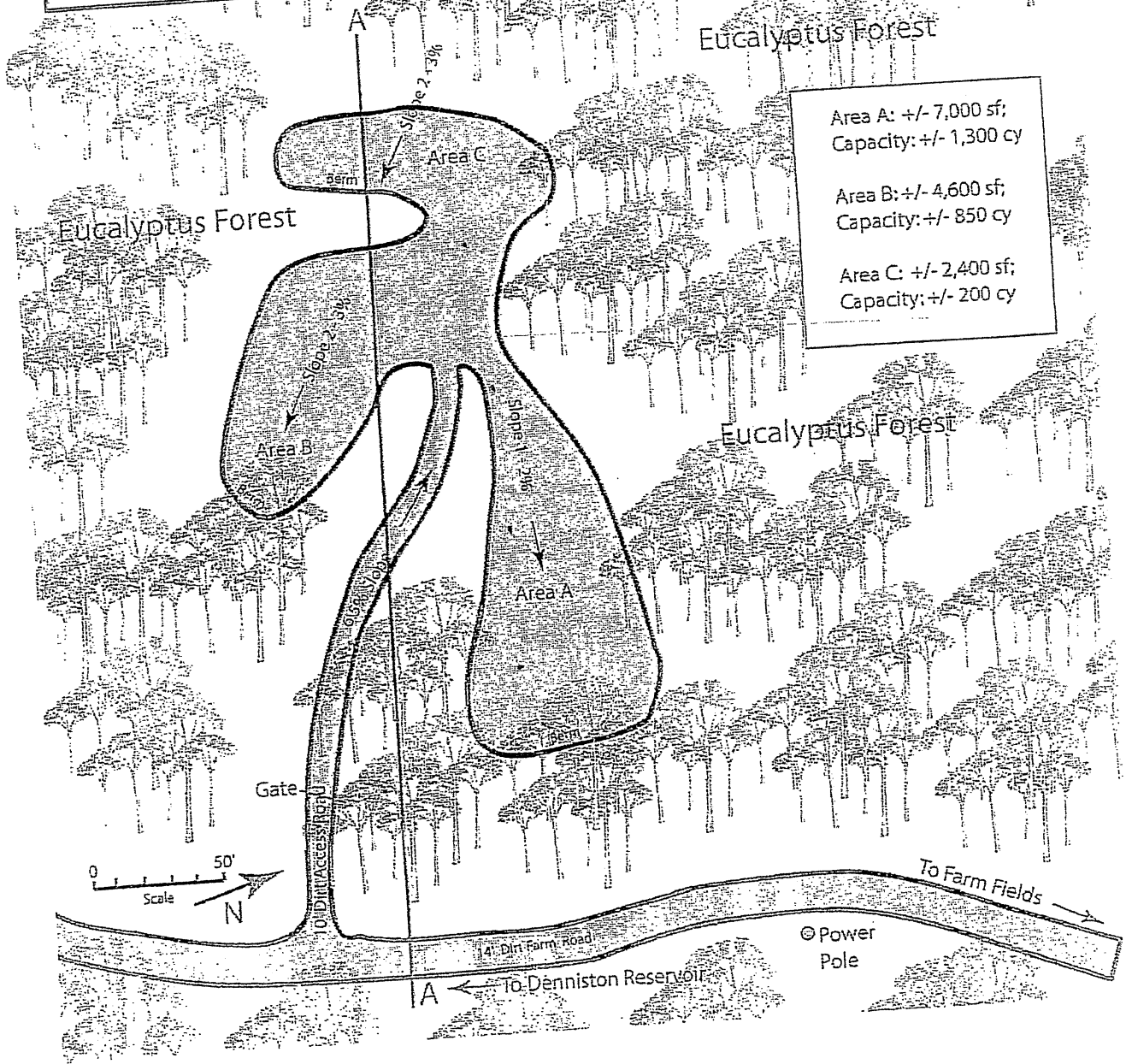
Date: 2/28/2014 Signed: _____

Jim Steele, Steele Biological Consulting

FIGURE 3

DENNISTON SPOILS DISPOSAL AREA





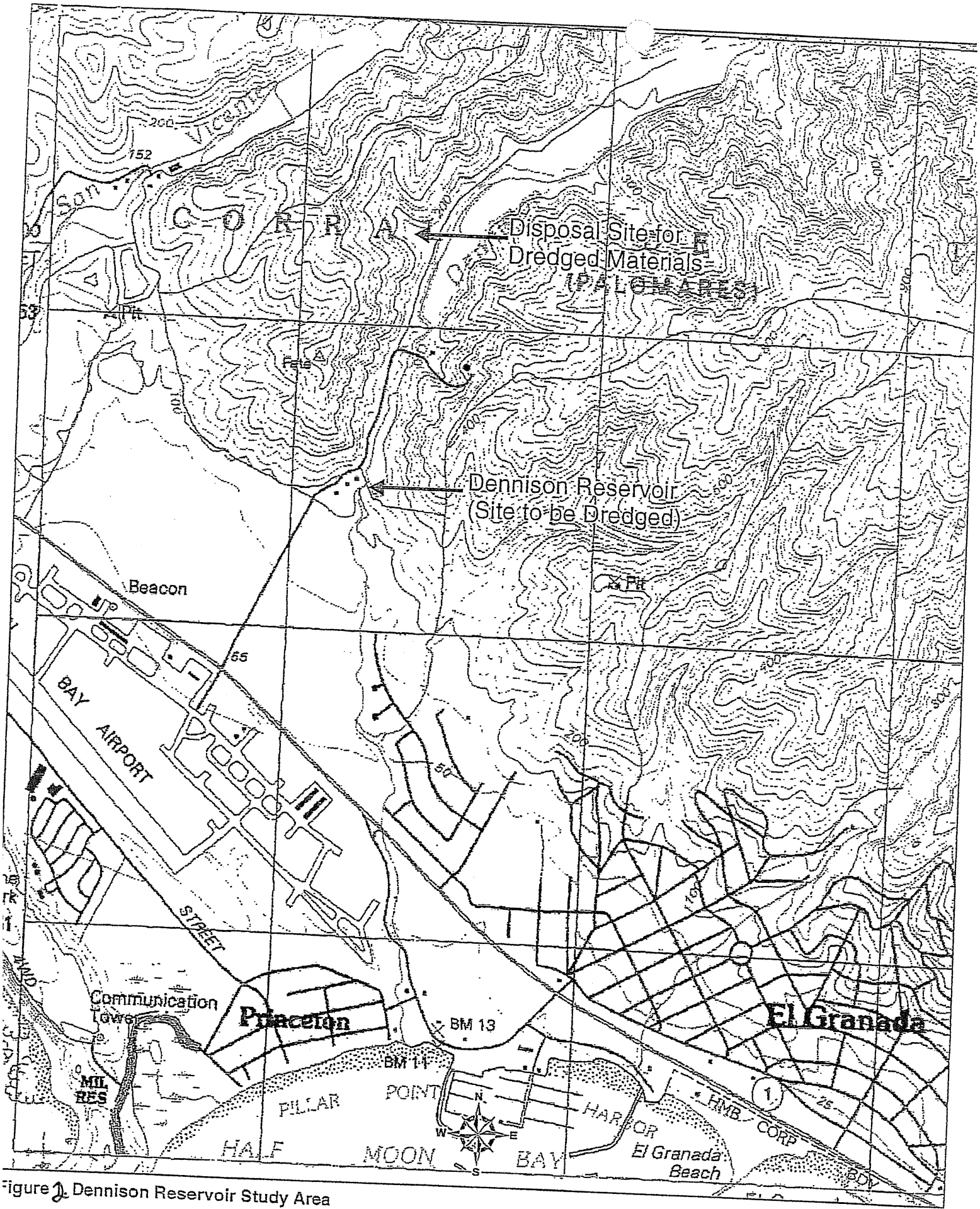


Figure 2. Dennison Reservoir Study Area

San Mateo County, California

SCALE

0.25 0.125 0 0.25 Miles

1 inch equals 0.25 miles
1:15,840

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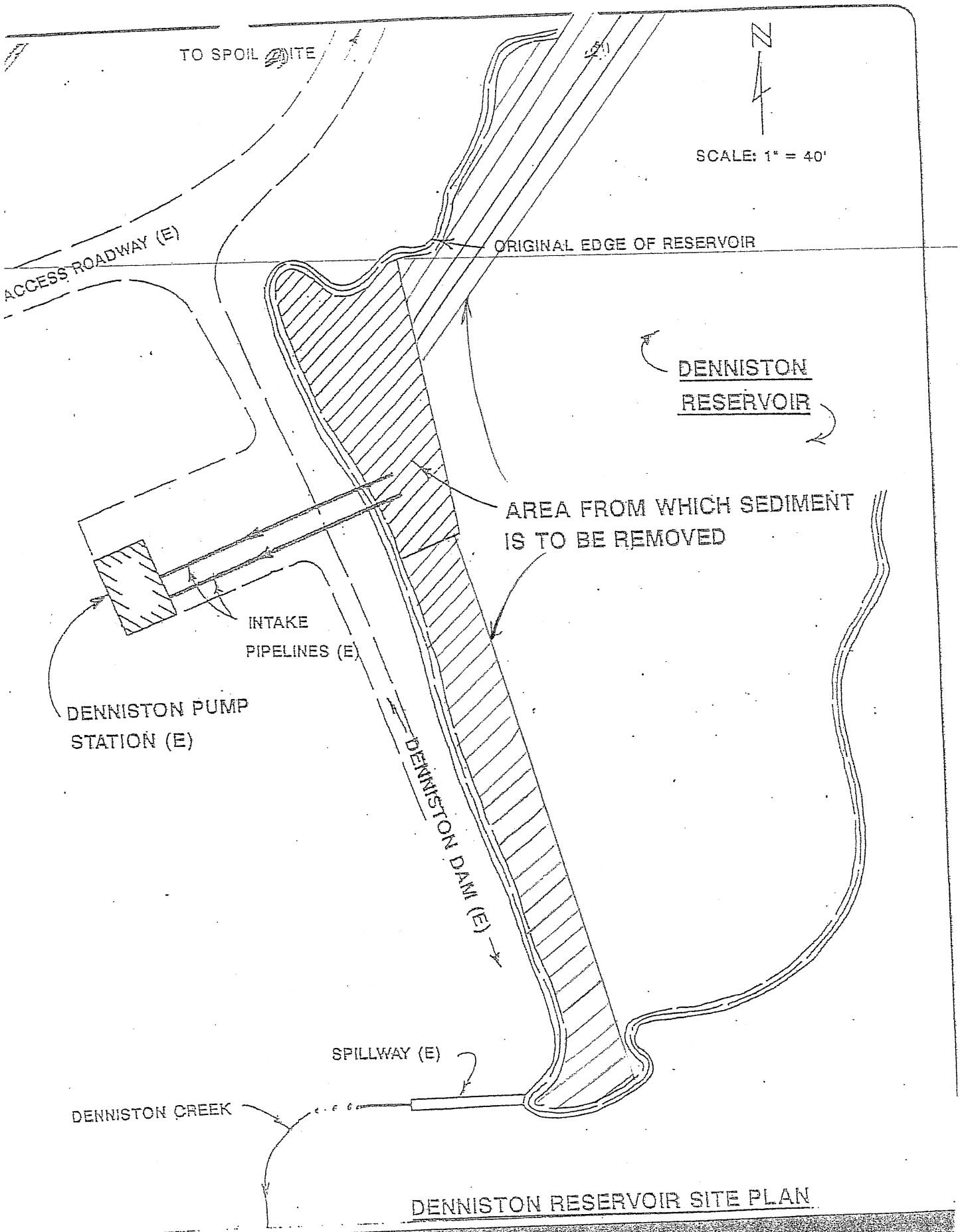
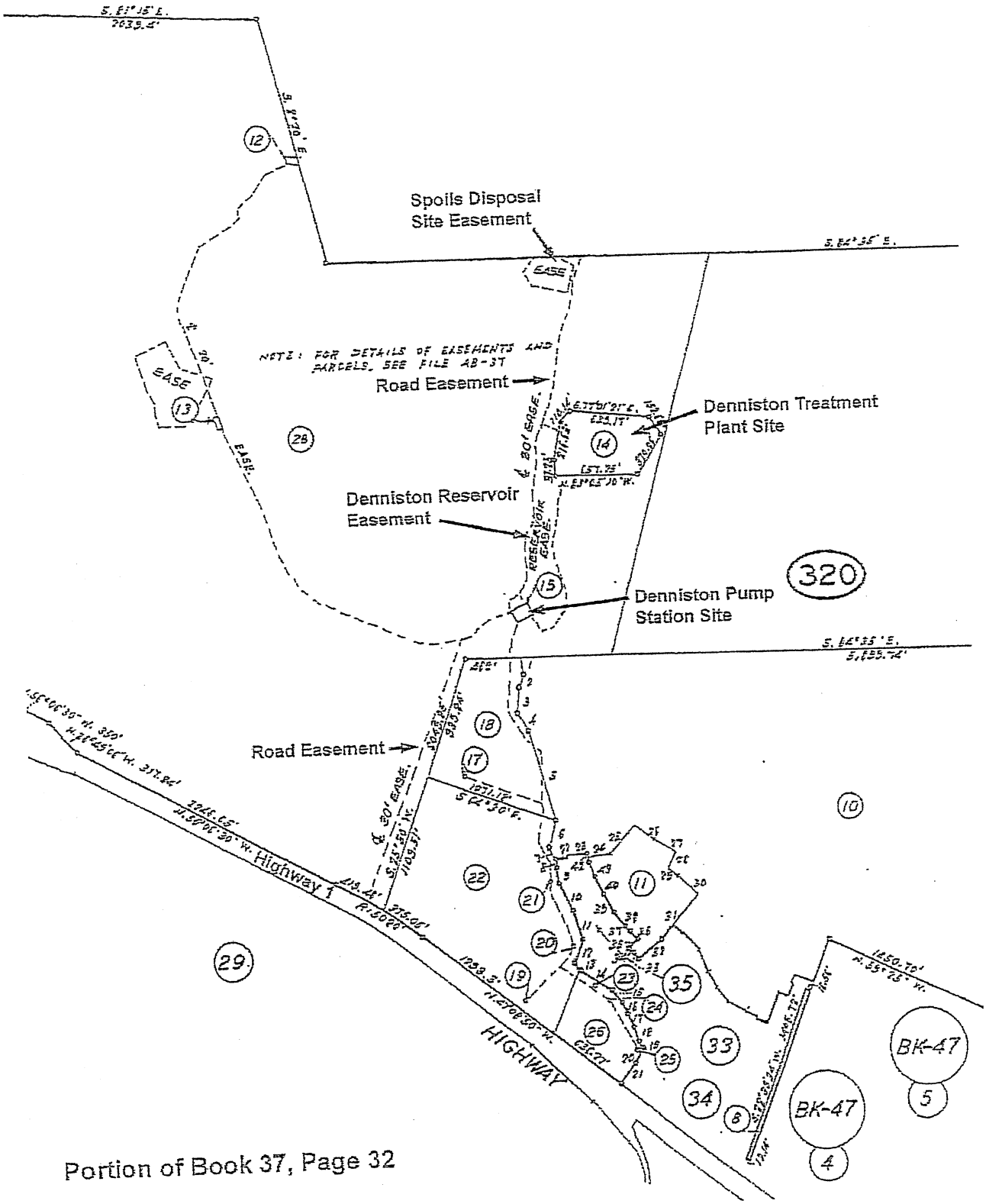


DENNISTON RESERVOIR SITE PLAN

ASSESSOR'S PARCEL MAP

FIGURE 4



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San Mateo County Biological Impact Report

Denniston Reservoir Dredging Project
San Mateo County, California

Prepared For:
Coastside County Water District
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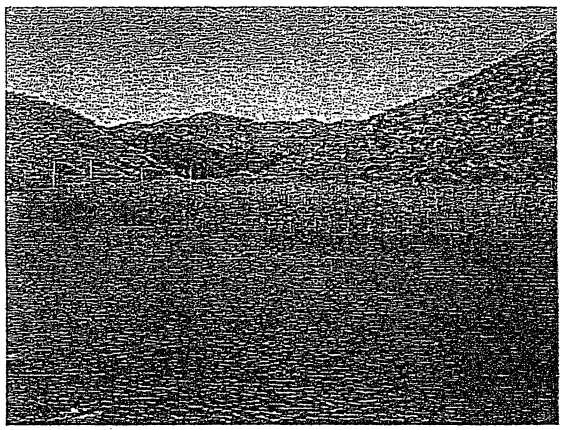
Albany, California 94706
Contact: Doug Donaldson
(510) 528-3684



Contact:
Phil Greer
greer@wra-ca.com

Date:
March 18, 2005

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LIST OF FIGURES

1.0 INTRODUCTION

WRA, Inc. (WRA) conducted a biological assessment of Denniston Reservoir (Study Area) in an unincorporated area of western San Mateo County, California. The Study Area included the dredging footprint at the four acre Denniston Reservoir and downstream reach of Denniston Creek, as well as a two acre dredged spoils disposal site and the unpaved roadway connecting the two locations. Denniston Reservoir is currently used as a source of potable water for coastside residents. The purpose of this assessment was to determined the potential suitability of the Study Area for special-status species and sensitive habitats as well as potential impacts to these species as a result of proposed dredging activities within the Study Area.

San Mateo County Biological Impact Report Guidelines define Sensitive Habitats as;

> " .... any areas in which plant or animal life or their habitats are either rare or especially valuable and those areas which meet one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tidelands and marshes, (4) coastal and offshore areas containing breeding and/or nesting sites and coastal areas used by migratory and resident water-associated birds for nesting and feeding , (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes. Such areas include riparian areas, wetlands, sand dunes, marine habitats, sea cliffs, and habitats supporting rare, endangered, and unique species."

Special status species are those plants and animals that have been formally listed or proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act or California Endangered Species Act. Listed and proposed species are afforded protection under these acts. California Department of Fish and Game (CDFG) Species of Special Concern are also treated as special status species. Species of Special Concern are those that face extirpation in California if current trends continue. Although they have no special legal status, these species (and federal species of concern) are given management consideration whenever possible. Impacts to these special status species are considered significant according to the California Environmental Quality Act (CEQA).

Special Status plants include all plants included in Lists 1 through 4 of the CNPS Inventory (Skinner and Pavlik 1994), and plants that qualify under the definition of "rare" in the California Environmental Quality Act, section 15380. Impacts to List 1 and 2 plants are always are considered significant according to the California Environmental Quality Act (CEQA), and List 3 and 4 plants may be considered significant.

1.1 Project and Property Description

The Denniston Reservoir Study Area is located approximately one half mile northeast of Highway 1 along an unpaved access road (Figure 1). The actual dredging project footprint includes the portion of the reservoir to be dredged, the dredge disposal area located approximately one mile up Denniston Canyon, and the unpaved roadway between these two locations. Denniston canyon is approximately 350 feet

wide within the reach containing the Study Area and rises to a height of nearly 300 feet above the canyon floor. The reservoir is formed by Dennistion Creek which originates at the main ridge of Montara Mountain to the northeast of the Study Area and flows into Half Moon Bay approximately one mile to the southwest. Open agricultural fields are situated immediately west of the Study Area.

Two plant communities occur in the Study Area: emergent wetland and eucalyptus forest. The fringe of Denniston Reservoir is dominated by emergent wetland vegetation including California bulrush (*Scirpus californicus*), cattail (*Typha* sp.), arroyo willow (*Salix lasiolepis*), spreading rush (*Juncus effusus*), water parsley (*Oenanthe sarmentosa*), willow herb (*Epilobium ciliatum*), and umbrella sedge (*Cyperus eragrostis*). Several plants associated with native coastal scrub are located along the access road adjacent to the reservoir including coyote brush (*Baccharis pilularis*), sagebrush (*Artemisia californica*), and seaside golden yarrow (*Eriophyllum staechadifolium*). However, these species are located in an area that has been repeatedly disturbed due to past dredging activities. As a result, this area is not considered to be coastal scrub habitat.

The dredged spoils disposal site is dominated by a blue gum eucalyptus (*Eucalyptus globulus*) overstory with mix of native and non-native understory species including German ivy (*Senecio milkanoides*), Bermuda buttercup (*Oxalis pes-caprae*), poison hemlock (*Conium maculatum*), soft rush (*Juncus patens*), wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*), cutleaf geranium (*Geranium dissectum*),acacia (*Acacia* sp.), and pampas grass (*Cortaderia selloana*). These understory species are primarily weedy opportunistic plants that have established after the area was cleared for dredged materials disposal.

The proposed project involves dredging of approximately 400 cubic yards of sediment from the Denniston Reservoir along the upstream face of a constructed dam and adjacent to the access road north of the dam. The sediment will be removed from the reservoir using an excavator and loaded directly into a dump truck where it will be allowed to drain prior to hauling to the disposal site. Prior to transport, excavated emergent vegetation will be stockpiled overnight adjacent to the work area. The disposal site is located approximately 0.5 miles north of the dam along the main access road and extends several hundred feet back from the access road into a declivity in the north wall of the canyon. It is enclosed on three sides by steep walls and is screened from the access road by eucalyptus trees and German Ivy. Dredged material will be disposed of in small piles in an enclosed portion of the disposal site where it will available to the coastside water district as backfill for future projects. This same spoils disposal site has been used during previous dredging activities within the reservoir in 1982, 1986, 1994 and 1998.

Z2.0 METHODS

The Study Area is located in an unincorporated area of San Mateo County, and is within the California Coastal Zone. Land use is regulated by San Mateo County under its Local Coastal Program (LCP). The Study Area may also fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act and the California Department of Fish and Game (CDFG). WRA traversed the Study Area on foot on February 2, 2005 to identify potential sensitive habitats as well as suitable habitat for special status species as defined by the State of California and San Mateo County.

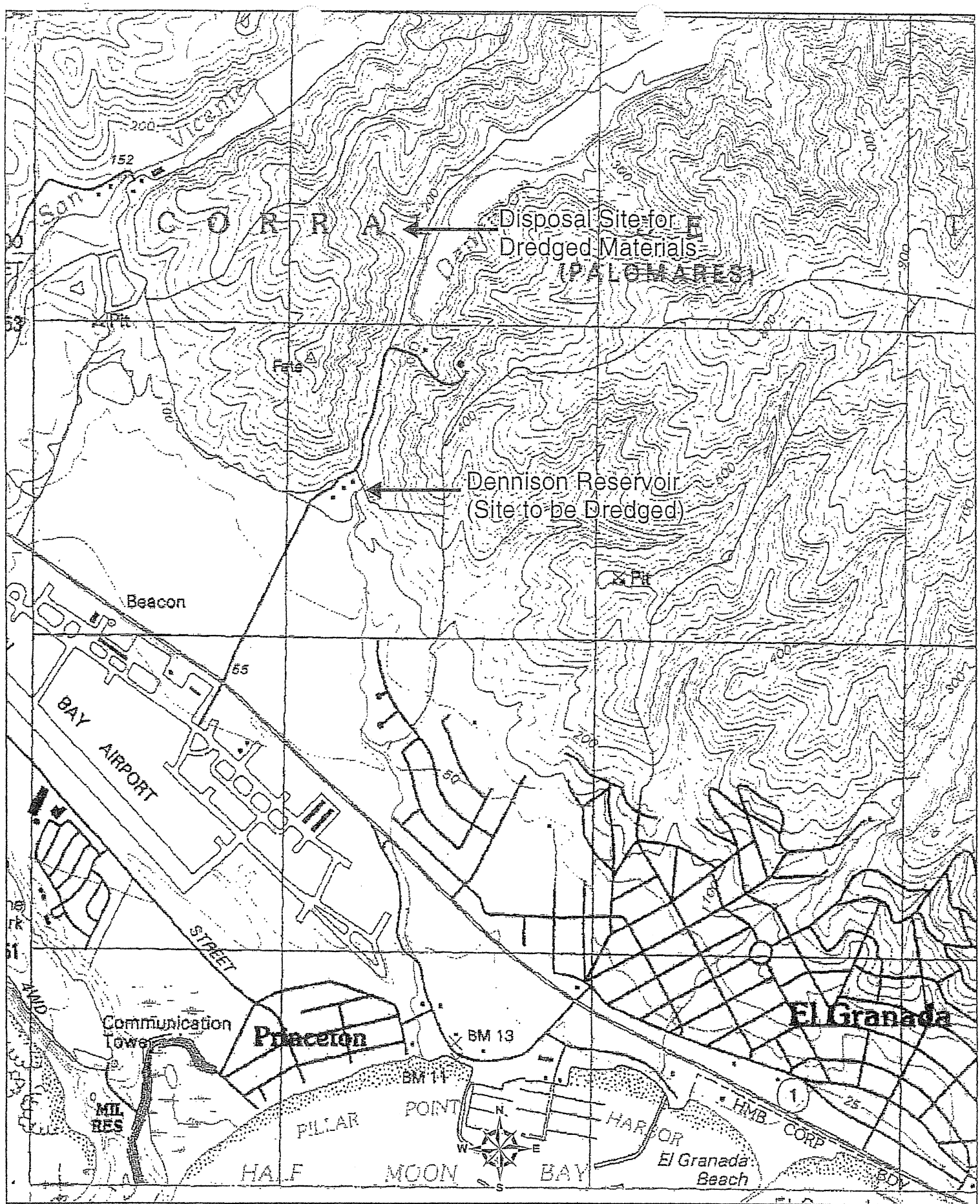

Figure 1. Dennison Reservoir Study Area

San Mateo County, California

SCALE

0.25 0.125 0 0.25 Miles

1 inch equals 0.25 miles
1:15,840

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2.1 Sensitive Habitats

2.1.1 LCP Wetlands

The Study Area was surveyed to determine if any wetlands and/or waters potentially subject to jurisdiction by the California Coastal Commission. Potential Coastal Commission wetlands were identified based on definitions contained in the San Mateo Local Coastal Program. The San Mateo County L CP, which has been certified by the Coastal Commission to implement the Coastal Act, defines a wetland as:

> *"...an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and manmade impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds, and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.*
>
> *In San Mateo county, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, spreading rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these plants, unless it is a mudflat."*
>
> (Section 7.14, San Mateo County Local Coastal Program, June 1998)

The plant species listed above in the LCP wetland definition include many, but not all, of the dominant species found in coastal wetlands in San Mateo County with US Fish and Wildlife Service wetland indicator status (Reed 1996) of OBL and FACW. Sedges (e.g. *Carex* sp, OBL) and willows (e.g. *Salix lucida*, OBL and *Salix exigua*, FACW) are notable omissions from this list. Strict adherence to the SMCLCP list and definition could result in some wetland areas dominated by OBL and FACW species being determined as uplands. In order to avoid this, the presence of OBL or FACW species equivalent to the typical species listed in the LCP wetland definition were used to identify potential wetland areas within the Study Area. All plant species were identified based on taxonomic nomenclature provided in the Jepson Manual.

2.1.2 U.S. Army Corps of Engineers Jurisdictional Wetlands

As stated in the federal regulations for the Clean Water Act, wetlands are defined as:

> *"Those areas that are inundated or saturated by surface or ground waters at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.*

Wetlands generally include swamps, marshes, bogs, and similar areas."
(EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)

The Study Area was assessed for the presence or absence of wetland indicators used by the U.S. Army Corps of Engineers in making a jurisdictional determination. The three criteria used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the *Corps of Engineers Wetland Delineation Manual* (1987):

> *"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."*

The routine method for wetland delineation described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Study Area. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status[1] of OBL, FACW, or FAC as given on the U.S. Fish and Wildlife Service List of Plant Species that Occur in Wetlands (Reed 1988). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, algal mats and drift lines, or indirect indicators (secondary indicators), such as oxidized root channels. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual and Field Indicators of Hydric Soils in the United States (NRCS, 2002).

2.2 Botanical

A list of special status plant species known to occur in the vicinity of the Study Area was compiled using occurrence records for the Montara Mountain, Half Moon Bay and San Francisco South USGS quadrangles in the California Department of Fish and Game's Natural Diversity Database (CNDDB)(CDFG 2000 and 2003) and the California Native Plant Society's Electronic Inventory (CNPS 2000 and 2003) (Appendix A). The site was traversed on foot on February 2, 2005 to determine potential habitat for special status plant species in the Study Area.

A focused survey for two potentially occurring special status species, Hickman's cinquefoil (*Potentilla hickmanii*) and marsh horsetail (*Equisetum palustre*), was conducted February 24, 2005. The field survey was conducted by a WRA botanist with experience conducting surveys for rare plant species with potential to occur in the area. During the rare plant survey, all plant species within the Study Area were identified using the Jepson Manual (Hickman ed. 1993) to the taxonomic level necessary to determine rarity. Rare plants are defined here to include: (1) all plants that are federal or state listed as rare, threatened, or endangered, (2) all federal and state candidates for listing, (3) all plants included in Lists

[1] OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

1 and 2 of the CNPS Inventory (CNPS 2001a), and (4) plants that qualify under the definition of "rare" in the California Environmental Quality Act (CEQA), section 15380.

2.3 Zoological

Prior to the site visit, the California Department of Fish and Game Natural Diversity Data Base (CDFG 2004), USFWS unofficial species lists, and other CDFG lists and publications (Jennings and Hayes 1994, Williams 1986, Zeiner et al. 1990) were reviewed to determine documented or potential presence of special status wildlife species in western San Mateo County in habitats similar to those found on the Denniston Reservoir Study Area (Appendix D). Published and non-published reports (Barry 1994, Skinner 1962, EIP 1994) were investigated for information concerning special status species in the vicinity.

The Study Area was traversed on foot on February 2, 2005 to determine if existing conditions provided suitable habitat for special status wildlife species and to observe species on the site. All wildlife observed or otherwise detected were noted. Potential for special status species was evaluated by classifying the potential for occurrence for each listed species according to the following criteria:

(1) Not Present. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime). The species has an extremely low probability of being found on the site.

(2) Low Potential. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.

(3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

(4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

(5) Present. Species is observed on the site or has been recorded (i.e. CNDDB) on the site recently.

3.0 RESULTS

3.1 Wetlands

Areas with a predominance of wetland vegetation and hydrology meeting both the LCP and Corps wetland definitions were found along the fringe of the Denniston Reservoir. The reservoir fringe is dominated by emergent wetland vegetation including cattails, bulrush, spreading rush, and arroyo willow. Additional areas containing wetland vegetation were located within the dredged spoils disposal

site. However, upon further inspection these areas did not appear to have adequate wetland hydrology or wetland soils. It is presumed that many of the hydrophytic plant species identified in this area were transplanted during previous dredged material disposal activities, and were not responding to current wetland conditions. A total of approximately 0.03 acre of potential San Mateo County LCP and Corps wetlands were located within the Property.

3.2 Botanical

During the February site assessment and subsequent rare plant survey, 61 plant species were observed within the Study Area (Appendix B-1). No special status plant species were observed during these visits. Based on a review of the resources and databases given in Section 2.2, 40 special status plant species have been documented in the general vicinity of the Study Area (Appendix A). The Study Area was determined to contain potentially suitable habitat for nine of the these species. Seven species were determined to have low potential for occurrence within the Study Area including coastal marsh milk vetch (*Astragalus pycnostachyus var. pycnostachyus*), Franciscan thistle (*Cirsium andrewsii*), compact cobwebby thistle (*Cirsium occidentale var. compactum*), San Mateo tree lupine (*Lupinus eximius*), western leatherwood (*Dirca occidentalis*), Choris' popcornflower (*Plagiobothrys chorisiansus* var. *chorisianus*), and coastal triquetrella (*Triquetrella californica*). Two species, Hickman's cinquefoil and marsh horsetail, were determined to have a moderate potential for occurrence. The remaining 31 species are not likely to occur within the Study Area.

Many species were considered not present, or had a low potential to occur within the Study Area due to degraded habitat conditions or a lack of species' habitat requirements, including specific plant communities, elevation, and soils. Most of these species are known to occur within coastal scrub, chaparral, or cismontane woodland consistent with habitat immediately adjacent to the Study Area; however, the proposed project will not impact these adjacent habitats

A focused rare plant survey for Hickman's cinquefoil and marsh horsetail was conducted February 24, 2005. The survey occurred outside of the blooming period for Hickman's cinquefoil; however, this species can be clearly identified based the distinct leaf morphology and habitat requirements for this species. Marsh horsetail is a perennial non-flowering species and can be identified at anytime. All plant species encountered within the Study Area during the rare plant survey were identified to a taxonomic level sufficient to determine rarity. No special status plant species were observed within the Study Area during this survey.

3.3 Zoological

Thirty special status wildlife species have been documented to occur, or potentially occur, in the vicinity of the Study Area in western San Mateo County (Appendix A). Of these species, nine wildlife species have a low potential for occurrence in the Study Area, 13 species have a moderate potential for occurrence, and three species are not likely to ever be present. Five species have a high potential for occurrence or are documented present: California red-legged frog, western pond turtle, yellow warbler, saltmarsh common yellowthroat, tricolored blackbird. A search of the CDFG Natural Diversity Data Base (CNDDB) found no documented occurrences of special status species in the Study Area (Figure 2). However, the CNDDB search found one documented occurrence of California red-legged frog (*Rana*

aurora draytonii) downstream of the Study Area along Denniston Creek, as well as ten documented occurrences of the San Francisco garter snake (*Thamnophis sirtalis tetrataenia)* within the Montara Mountain Quadrangle.

Ten wildlife species were observed or otherwise detected in the Study Area during the February 2 site assessment (Appendix B). The wildlife species observed in the Study Area are commonly found species in the region. Though no special status species were observed during the February 2 assessment, WRA wildlife biologist Jeff Dreier observed California red-legged frog egg masses during a brief site visit in late January 2005.

This section evaluates special status species that are known to occur or have a high probability of occurring at the Denniston Reservoir Study Area. The San Francisco Garter Snake and steelhead-Central California Coast ESU are also discussed due to their conservation importance in the region. Thirteen species with a moderate potential to occur in the Study Area are summarized following this section.

Federal and State Threatened Species

California red legged frog, Federal Threatened, CDFG Species of Special Concern.

Distribution

The California red-legged frog is the largest native frog in the western United States. The range of the frog extends along the coast from Marin County to northwestern Baja California and inland from the vicinity of Redding, Shasta County. It is typically found from sea level to elevations of approximately 1,500 meters.

Habitat

This species occurs primarily in coastal regions from Marin County to Ventura County in isolated ponds or pools, or in slow-moving perennial or ephemeral creeks. California red-legged frog use a variety of aquatic, upland, and riparian habitats including ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, permanent ponds, perennial creeks, marshes, riparian corridors, blackberry thickets, non-native annual grasslands, and oak savannas. Dispersal from breeding habitat to various aquatic, upland, and riparian habitats often occurs in the summer. Dispersal over long distances (up to 2 miles) is common and can occur without regard to topography, vegetation type, or riparian corridors. Populations of California red-legged frog are most successful in areas where there are multiple breeding locations within an assemblage of habitats that are used for dispersal.

Occurrence in the Study Area

The frog was documented to occur along Denniston Creek on June 9, 1989 (CDFG 2004) and suitable breeding habitat persists along the creek, both up and downstream of the reservoir and within the reservoir itself. The coastal scrub habitat adjacent to the Study Area provides suitable upland and dispersal habitat and no major barriers to dispersal exist. California red-legged frog eggs were observed

by WRA wildlife biologist Jeff Dreier during a late January site visit.

San Francisco Garter Snake, Federal Threatened, State Threatened.

Distribution

Historically, San Francisco garter snakes occurred in scattered wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County.

Habitat

The preferred habitat of the San Francisco garter snake is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied. Temporary ponds and other seasonal freshwater bodies are also used. The snakes avoid brackish marsh areas because their preferred prey (California red-legged frogs) cannot survive in saline water for extended periods. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp.and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover. Snakes also use floating algal or rush mats, if available.

Occurrence at the Study Area

Barry (1994) reported in his thesis of the distribution, habitat, and evolution of the San Francisco garter snake that the population of *T.s. tetrataenia* at Denniston Creek declined from 0.1 to zero (4-0) resident snakes from 1972 through 1977 and has remained at or near zero since then. In a report prepared for the Coastside County Water District (EIP 1990 in EIP 1994), potential habitat for the San Francisco Garter Snake was assessed with the assistance of Dr. Samuel M. McGinnis, a recognized specialist in the habits and habitat of this species. No San Francisco garter snakes were observed on any of the sites studied during the 1990 survey, including the site of the dredging project in Denniston Reservoir. However, two sightings of the San Francisco garter snake in Denniston Creek between 1978 and 1990 were thought to be reliable. Habitat for the San Francisco Garter Snake in the vicinity of Denniston Reservoir was rated Moderate for feeding habitat and High for retreat habitat. A search for evidence of the San Francisco garter snake at the project site for a 1994 dredging project did not indicate that the species was present (EIP 1994).

Intensive trapping and visual surveys capable of definitively establishing the presence or absence of this species at the Study Area have not been performed and the reservoir continues to provide suitable habitat for the San Francisco garter snake. Dense tule and cattail stands provide refuge, cover and basking opportunities and suitable upland habitats adjacent to the reservoir are undisturbed. Despite the fact the species is uncommon in the county and has not been observed at the reservoir, USFWS generally assumes presence in suitable habitat areas for this species if no current survey information is available.

Steelhead-Central California Coast ESU, Federal Threatened.

Distribution

The Central California Coast ESU includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin.

Habitat

This species exhibits varying degrees of anadromy; anadromous forms of the species, known as steelhead, are born in fresh water and migrate to marine waters to live as adults before returning to fresh waters to breed. Nonanadromous forms are known as rainbow trout (or landlocked trout if man-made barriers prevent migration to marine waters) and spend their entire lives in fresh water stream habitats. Although rainbow trout and steelhead are classified within the same species, the former is not generally protected by state or federal regulations.

Steelhead typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for 2 or 3 years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Steelhead adults typically spawn between December and June and are iteroparous, meaning that they are capable of spawning more than once. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.

Occurrence at the Study Area

According to CDFG (Pers. Comm. Jennifer Nelson, CDFG) resident trout (landlocked steelhead) are present along Denniston Creek, both above and below Denniston Reservoir. A perched culvert near the mouth of the creek, below Highway 1, currently creates an impassable barrier to steelhead migration up Denniston Creek. The dam at Denniston Reservoir forms a second impassable barrier approximately one mile upstream from this location. According to CDFG records, resident trout were observed during an electrofishing survey between these two barriers in 2000 and a substantial population of the trout are present upstream from the dam. One resident trout was observed during the WRA site visit when a local fisherman at the reservoir caught and released an approximately six inch individual. The perched culvert is on the San Mateo County list for remediation, though it is unknown when this may actually occur.

Suitable spawning gravels formerly existed in the upper reach of Denniston Creek before the reservoir dam was built in the 1930's (Skinner 1962) and steelhead were known to spawn in the creek. Today, the lower reach of Denniston Creek is inaccessible to spawning steelhead and is generally unsuitable due to the siltation of the creekbed and the overall channelized nature of the creek and subsequent lack of sufficient riffles and backwater pool areas. Siltation of the creek occurs from decomposed

granite silt that is brought down naturally from the watershed (Denniston Reservoir Initial Study, 1994) and erosion from agricultural fields located both upstream and downstream of the Study Area. The creek is generally characterized by high flow volume and dense brushy overstory. Non-native eucalyptus trees form the upper canopy over the creek and brushy vegetation, willows and invasive ivy dominate the lower riparian corridor. However, despite the overall deficiency of preferred habitat elements within this portion of Dennsiton Creek, resident trout are present, indicating that some suitable habitat elements are present. If barriers to migration were removed from this creek, steelhead would likely utilize the creek once again.

According to the Federal Register listing for this species (NOAA 1997), NMFS believes available evidence suggests that resident rainbow trout (landlocked steelhead) should be included in listed steelhead ESUs in certain cases. Such cases include: (1) Where resident O. *mykiss* have the opportunity to interbreed with anadromous fish below natural or manmade barriers; or (2) where resident fish of native lineage once had the ability to interbreed with anadromous fish but no longer do because they are currently above human-made barriers, and they are considered essential for recovery of the ESU. Whether resident fish that exist above any particular man-made barrier meet these criteria, must be reviewed on a case-by-case basis by NMFS.

CDFG and USFWS Species of Concern

Western Pond Turtle, USFWS Species of Concern, CDFG Specis of Special Concern. The western is associated with permanent or nearly permanent water in a wide variety of habitat types. Pond turtles require basking sites such as partially submerged logs, rocks, or mats of floating material. Hatchlings are preyed upon by fishes, bullfrogs, garter snakes, wading birds, and some mammals. Hatchlings may be subject to rapid death by dessication if exposed to hot, dry conditions. Suitable aquatic habitat is available for this species in the reservoir, however no known records of the species at the reservoir or creek exist.

Yellow warbler, CDFG Species of Special Concern . The yellow warbler is a summer resident of Northern California and breeds in deciduous riparian habitats. Suitable breeding habitat is available for this species in the willow riparian habitat located adjacent to and upstream of the reservoir.

Saltmarsh common yellowthroat, USFWS Species of Concern, CDFG Species of Special Concern. Despite its name, this species also occurs in fresh and brackish marshes and wetlands, nesting in emergent wetland vegetation and riparian vegetation in the San Francisco Bay region. Breeding populations have been documented in wetlands along the San Mateo County coast (CDFG 2004). The cattail/tule marsh habitat of the reservoir provides suitable breeding habitat for this species.

Tricolored blackbird, USFWS Species of Concern, CDFG Species of Special Concern. This species breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. It feeds in grassland and cropland habitats during winter months and is more widespread at this time. Breeding habitat must be large enough to support colonies of 50 or more pairs. The cattail/tule habitat at the reservoir provides suitable breeding habitat for this species.

Species with a Moderate Potential to Occur at the Study Area

Townsend's Western Big-Eared Bat, USFWS Species of Concern, CDFG Species of Special Concern. This species is primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts are highly associated with caves and mines and they are sensitive to human disturbance. This species may occur to forage over the waters of the reservoir and nearby scrub habitat.

Fringed Myotis, USFWS Species of Concern. Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Long-Eared Myotis, USFWS Species of Concern. This species is primarily a forest associated species. Day roosts are found in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts include caves, mines and under bridges. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Long-Legged Myotis, USFWS Species of Concern. The long-legged myotis is generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Yuma Myotis, USFWS Species of Concern. This species is known for its ability to survive in urbanized environments. It is also found in heavily forested settings. Day roosts are found in buildings, trees, mines, caves, bridges and rock crevices. Night roosts are associated with man-made structures. This species may occur to forage over the waters of the reservoir and nearby scrub habitat. Roosting habitat is available in woodland habitats in the vicinity of the Study Area for this species.

Greater Western Mastiff Bat, USFWS Species of Concern. This species is found in a wide variety of habitat. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders. This species may occur to forage over the waters of the reservoir and nearby scrub habitat.

Dusky-Footed Woodrat, USFWS Species of Concern, CDFG Species of Special Concern. This species occurs in forest habitats of moderate canopy and moderate to dense understory. It is also found in chaparral habitats. It feeds mainly on woody plants: live oak, maple, coffeeberry, alder, and elderberry. This species may occur in the riparian habitats upstream of the reservoir, nearby coastal scrub habitats and in the eucalyptus forest.

American Bittern, USFWS Species of Concern. This species occurs in fresh emergent wetlands, often hiding, resting, and roosting solitarily amidst tall, dense, emergent vegetation, on ground, or near

ground on log, stump, or on emergent plants. Suitable habitat for this species is available within the emergent vegetation of the reservoir and upstream along Denniston Creek.

Cooper's Hawk, CDFG Species of Special Concern. Cooper's hawk inhabits areas with dense tree stands or patchy woodlands. They usually nest in deciduous riparian areas or second-growth conifer stands near streams. Suitable habitat is present for this species in woodland areas adjacent to the reservoir. This species may roost and nest adjacent to the Study Area and forage within Study Area.

Sharp-Shinned Hawk, CDFG Species of Special Concern. Sharp-shinned hawks are generally associated with woodland habitats. They typically nest in isolated areas away from human disturbance. Suitable habitat is present for this species in woodland areas adjacent to the reservoir. This species may roost and nest adjacent to the Study Area and forage within Study Area.

White-tailed kite, USFWS Species of Concern, CDFG Species of Special Concern. This raptor is a year-long resident of coastal and valley lowlands. Kites prefer to forage in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Habitats used for nesting include dense willow, oak, or other stands of trees (Zeiner et. al. 2000). This species is common in the region and may occur to roost and nest in trees adjacent to the reservoir and forage within the Study Area.

Monarch Butterfly. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind protected tree groves, with nectar and water sources nearby. Suitable winter roost sites exist for this species in tall eucalyptus up and downstream of reservoir and in the vicinity of the spoils disposal area.

4.0 POTENTIAL IMPACTS AND ASSOCIATED MITIGATION FOR SPECIAL STATUS SPECIES AND SENSITIVE HABITATS

4.1 Wetlands

A total of approximately 0.03 acres of potential LCP and Corps wetlands occur within the Study Area along the fringe of Denniston Reservoir. Wetland vegetation will only be impacted by the project within the footprint of the proposed dredging area. This wetlands assessment did not identify additional potential wetlands elsewhere within the Study Area.

4.2 Botanical

No special-status plant species were observed within the Property during the biological assessment site visit or during the late February rare plant survey. All plant species within the Study Area were identified to a level necessary to determine rarity, and therefore it is unlikely that any special status plant species occur within the Study Area. No additional botanical surveys are recommended for the Study Area.

4.3 Zoological

The majority of special status species that may potentially occur at the Study Area are not expected be impacted by the proposed project due to: 1) the extremely short-term nature of the project (less than

one week), 2) the relatively small footprint of dredging activity in the Study Area and avoidance of sensitive habitats in the vicinity of the reservoir, 3) the limited suitability of the habitats within the actual project footprint for species that may occur in the immediate vicinity (e.g. coastal scrub species), 4) the low probability for many of the species (bats, raptors, songbirds) to pass through or attempt to forage within the project footprint at the time of activity, and 5) the lack of long-term habitat loss that would occur in association with this project.

Nevertheless, dredging in the reservoir has the potential to indirectly impact select special-status species through noise disturbance, a temporary increase in water turbidity levels, and the presence of human activity. Potential impacts and recommended mitigation measures for these species are addressed below.

Potential Impacts/Mitigation

California Red-Legged Frog

The proposed project will temporarily impact California red-legged frog breeding habitat and may temporarily disturb upland habitat. Indirect impacts to red-legged frogs potentially occurring downstream of the Study Area could occur as a result of increased siltation during the dredging operations. Increased turbidity of waters downstream from the Study is expected to be equivalent to a large storm in the watershed and will last for five days or less, therefore no mitigation measures are recommended.

Mitigation measures to reduce impacts to California red-legged frogs include:

- A qualified biological monitor should be present during all dredging and disposal activities.
- Immediately prior to the dredging operation, the biological monitor should survey the shoreline and upland areas adjacent to the reservoir that will support dredging equipment for California red-legged frogs. If a frog is detected, no work would proceed until the frog had left the work area. (Biologist will not be able to relocate the frog outside the work area unless permitted by the USFWS through a Section 7 consultation and the subsequent Biological Opinion or Section 10 Habitat Conservation Plan. Section 7 consultation would only occur if the Corps of Engineers or another federal agency were required to issue a permit).
- The project should be completed in August and September to avoid the breeding season.

San Francisco Garter Snake

CDFG and USFWS were consulted on potential impacts to the San Francisco Garter Snake during previous dredging activities (EIP 1994). At this time, the agencies expressed the opinion that as long as dredging did not actually extend into the sides of the dam, and that there was minimal disturbance of the area of the dam above water level, the San Francisco Garter Snake, if present, would not be affected. Because the District would avoid altering the dam itself, the potential impact on the San Francisco Garter Snake was not considered significant.

New information on the status of the snake at the Study Area is lacking, therefore it must still be considered potentially present. The proposed project will temporarily impact potential San Francisco garter snake aquatic habitat by increasing turbidity and may also temporarily disturb upland habitats adjacent to the dredging operation.

Mitigation measures to reduce impacts to the San Francisco garter snake include:

- A qualified biological monitor should be present during all dredging and disposal activities.

- Immediately prior to the dredging operation, the biological monitor should survey the shoreline and impacted upland areas adjacent to the reservoir that will support dredging equipment for San Francisco garter snakes. The haul road between the reservoir and disposal site should be monitored during the project for San Francisco garter snakes that may be crossing or basking on the road. Vehicles should be limited to 10 miles per hour; vehicle operators should contact the project biologist if a snake is observed. If the snake is detected and work must be halted, the project biologist will consult the appropriate agencies.

Steelhead-Central California Coast ESU

Steelhead do not currently utilize Denniston Creek for spawning due to impassable barriers to migration. However landlocked trout are present above and below the dam and the proposed project may lead to additional siltation of the creek below the reservoir dam. It is expected that the suspended sediments caused by the dredging operation will equivalent to a large storm in the watershed and will last for five days or less. No mitigation measures are recommended.

Breeding Birds

Common and special status birds and raptors may be temporarily disturbed by the noise and activity associated with dredging operations, no direct impacts to birds or their habitat are expected. Breeding birds are protected under the Migratory Bird Treaty Act; under this regulation, no disturbance or harm of breeding birds or their young is allowed. It is recommended that dredging activities take place outside of the breeding season (generally February-August) in order to avoid impacts to these species.

Western Pond Turtles

The proposed project will temporarily impact potential western pond turtle aquatic habitat, however no direct impacts are expected due to: 1) the lack of confirmed sightings of turtles at the reservoir and 2) the tendency and ability of turtles to avoid and flee from this type of disturbance. Increased siltation of waters within the reservoir is expected to be comparable to that caused by a large storm, therefore temporary increases in turbidity are not considered significant. No mitigation measures are required.

5.0 CONCLUSION

The Denniston Reservoir dredging project proposes the removal and disposal of approximately 400 cubic yards of sediment from the vicinity of the water intakes located at the base of the reservoir dam.

The project will result in impacts to approximately 0.03 acres of LCP and Corps wetlands. However, associated wetland impacts are within the scope of permitted activities in San Mateo County LCP wetlands for "dredging manmade reservoirs for water supply where wetlands may have formed, providing spoil disposal is carried out to avoid significant disruption to marine and wildlife habitats and water circulation." Within the Study Area, all project related impacts to wetlands will be temporary; therefore, no mitigation for these impacts is likely to be required.

Though special status plant and wildlife species are known to occur in the general vicinity of the Study Area, the proposed dredging project encompasses a small area (0.35 acres/16,000 sq ft) and will last for approximately two working days. Special status wildlife species known to occur in the vicinity of the Study Area are not expected to experience significant direct or indirect impacts as a result of this routine dredging operation. In addition, the project footprint has experienced similar disturbances during previous dredging operations, therefore there is little potential to impact special status plants that may occur on the banks of the reservoir.

6.0 REFERENCES

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Appendix A
Special Status Species Table

Appendix A. Special status species that have been recorded in San Mateo County in the vicinity of the Denniston Reservoir Study Area. List compiled from a review of records from the Half Moon Bay, Woodside, San Mateo, San Francisco South, and Montara Mountain USGS quadrangles in the CDFG Natural Diversity Data Base (2004), other CDFG lists and publications (Jennings and Hayes 1994; Zeiner et al. 1990), USFWS unofficial San Mateo County species lists (2005), and the CNPS electronic inventory (2004).

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
PLANTS			
Allium peninsulare var. *franciscanum* Franciscan onion	FSC, 1B	Cismontane woodland, valley and foothill grassland. Found on clay, often serpentinite at elevations of 100-300m. (*May-June*)	**Not present.** Suitable habitat and soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Amsinckia lunaris bent-flowered fiddleneck	1B	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. Found at elevations of 3-500m. (*March-June*)	**Not present.** Suitable habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos andersonii Santa Cruz manzanita	FSC, 1B	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Found on open sites and redwood forest at elevations of 60-700m. Known only from Santa Cruz Mountains. (*November-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos hookerii ssp. *fransicana* Fransican manzanita	1A	Chaparral. Formerly endemic to the San Francisco Bay Area but now only exists in cultivation. Elevations of 60-300 m. (*November-April*)	**Not present.** Suitable habitat not present on the site. This species is assumed extirpated from natural communities and was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Arctostaphylos hookerii spp. *ravenii* Presidio manzanita	FE, SE 1B	Chaparral, coastal prairie, coastal scrub, often on rocky serpentine slopes. Elevations of 20-215m. (*February-April*)	**Not present.** No manzanita present on site. This species is considered extirpated from natural communities and was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos imbricata Kings Mountain manzanita	SE, 1B	Chaparral, coastal scrub, often on sandstone outcrops. Found at elevations of 275-365m. (*February-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos montaraensis Montara manzanita	FSC, 1B	Chaparral and coastal scrub. Found on slopes and ridges at elevations of 150-500m. Endemic to San Mateo County. (*January-March*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Arctostaphylos regismontana Kings Mountain manzanita	1B	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Found on granitic or sandstone soils at elevations of 305-730m. (*January-April*)	**Not present.** No manzanita present on site. This species was not observed during the site assessment or the late February rare plant survey.
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	1B	Coastal dunes (mesic) and marshes and swamps (coastal salt, streamsides). Found at elevations of 0-30m. (*April-October*)	**Not present.** Within San Mateo County, this species is commonly associated with brackish/salt marsh habitat not present within the Study Area. This species was not observed during the site assessment or late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Centromadia parryi ssp. parryi pappose tarplant	1B	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkali sites. Found at elevations of 2-420m. (unknown)	**Not present.** Vernally wet alkali habitat not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Chorizanthe cuspidata var. *cuspidata* San Francisco Bay spineflower	FSC, 1B	Coastal bluff scrub, coastal dunes, coastal prairie, and coastal scrub. Found on terraces and slopes in sandy soil at elevations of 3-550m. (*April-August*)	**Not present.** Suitable sandy soils not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Chorizanthe robusta var. *robusta* robust spineflower	FE, 1B	Cismontane woodland (openings), coastal dunes, and coastal scrub. Found on terraces and slopes in sandy or gravelly soil at elevations of 3-300m. (*April-September*)	**Not present.** Suitable soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Cirsium andrewsii Franciscan thistle	1B	Mesic areas in broadleaved upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Sometimes on serpentine at elevations of 0-135m. (*March-July*)	**Not Present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir; however, in San Mateo County, this species is typically associated with seep habitats not present on the site. This species was not identified during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Cirsium occidentale var. *compactum* compact cobwebby thistle	FSC, 1B	Chaparral, coastal dunes, coastal prairie, coastal scrub at elevations of 0-150m. (*April-June*)	**Not Present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir. However, this species was not identified during the late February rare plant survey and is presumed extirpated from San Mateo County and the San Francisco Bay Area.
Collinsia multicolor San Francisco collinsia	1B	Closed-cone coniferous forest and coastal scrub. Sometimes found on serpentinite at elevations of 30-250m. (*March-May*)	**Not Present.** This species is typically found on north facing slopes with a dense overstory of live oak and buckeye. Serpentinite soils are not present within the Study Area.
Dirca occidentalis western leatherwood	1B	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. Found on brushy slopes, mesic sites mostly in mixed evergreen and foothill woodland communities at elevations of 50-395m. (*January-April*)	**Not Present.** In San Mateo County, this species is typically found in mixed evergreen plant communities on north facing slopes east of Skyline Ridge and was not observed during the site assessment or the late February rare plant survey.
Equisetum palustre marsh horsetail	3	Found in marshes and swamps at elevations of 45-1,000m. (Not Applicable)	**Not Present.** Suitable marsh habitat found on site along fringe of reservoir; however, this species was not located during site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Eriogonum luteolum var. *caninum* Tiburon buckwheat	3	Chaparral, coastal prairie, and valley and foothill grassland. Found on serpentinite at elevations of 10-500m. (*June-September*)	**Not present.** Serpentine soils not present on site. This species was not observed during the site assessment or the late February rare plant survey.
Erysimum ammophilum coast wallflower	FSC, 1B	Maritime chaparral, coastal dunes, and coastal scrub. Found in sandy openings at elevations of 0-130m. (*February-June*)	**Not present.** Suitable sandy openings in coastal scrub/chaparral not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Fritillaria biflora var. *ineziana* Hillsborough chocolate lily	FSC, 1B	Cismontane woodland and valley and foothill grassland. Endemic to San Mateo County. Typically on serpentine at elevations of 90-160m. (*March-April*)	**Not present.** Suitable habitat with serpentine soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Fritillaria liliacea fragrant fritillary	FSC, 1B	Coastal scrub, valley and foothill grassland, and coastal prairie. Usually found on clay soils (often serpentine) at elevations of 3-410m. (*February-April*)	**Not present.** Suitable soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Gilia capitata ssp. *chamissonis* dune gilia	1B	Coastal dunes, coastal scrub with sandy soils from 2-200m. (*April-July*)	**Not present.** Suitable dune habitat and/or sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Grindelia hirsutula var. *maritima* San Francisco gumplant	FSC, 1B	Coastal scrub, coastal bluff scrub, and valley and foothill grassland. Found on sandy or serpentine slopes and sea bluffs at elevations of 15-400m. (*August-September*)	**Not present.** Limited area suitable for coastal scrub species on the bank of Denniston Reservoir. However, this species was not located during the site assessment or the late February rare plant survey.
Helianthella castanea Diablo helianthella	FSC, 1B	Broadleaf upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland from 25-1,300m. (*April-June*)	**Not Present.** In San Mateo County, this species is typically associated with grassland habitat and grassy openings in wooded areas not located within the Study Area. This species was not observed during the site assessment or the late February rare plant survey.
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	FCS, 1B	Closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal prairie, and coastal scrub. Found on sandy soils at elevations of 5-350m. (*April-September*)	**Not present.** Suitable sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Horkelia marinensis Point Reyes horkelia	FSC, 1B	Coastal dunes, coastal prairie, and coastal scrub. Found on sandy soils at elevations of 5-350m. (*May-September*)	**Not present.** Suitable sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Layia carnosa beach layia	FE, SE, 1B	Coastal dunes. Usually found behind foredunes at elevations of 2-75m. (*March-July*)	**Not present.** Suitable dune habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Leptosiphon croceus coast yellow leptosiphon	1B	Coastal bluff scrub. Found at elevations from 10-150m. (*May*)	**Not present.** Suitable coastal bluff scrub not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Leptosiphon rosaceus rose leptosiphon	FSC, 1B	Coastal bluff scrub and coastal prairie. Found at elevations from 0-150m. (*April-June*)	**Not present.** Suitable coastal bluff scrub or coastal prairie habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Lessingia arachnoidea Crystal Springs lessingia	FSC, 1B	Coastal sage scrub, valley and foothill grassland, and cismontane woodland. Found on grassy slopes on serpentinite, sometime on roadsides at elevations of 60-200m. (*July-October*)	**Not present.** Suitable serpentinite soils not present on the site and s ite is below typical elevation range for this species. This species was not observed during the site assessment or the late February rare plant survey.
Lessingia germanorum San Francisco lessingia	FE, SE, 1B	Coastal scrub in open sandy soils relatively free of competing plants. Found at elevations of 20-125m. (*June-November*)	**Not present.** Suitable open sandy soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Lupinus eximius San Mateo tree lupine	FSC, 3	Chaparral and coastal scrub. An evergreen shrub found at elevations of 90-550m. (*April-July*)	**Not present.** No evergreen lupine were identified within the Study Area during the site assessment or late February rare plant survey. Site is below typical elevation range for this species.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Malacothamnus arcuatus arcuate bush mallow	1B	This evergreen shrub is found in chaparral at elevations of 15-355m. (*April-September*)	**Not present.** Suitable chaparral habitat not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Pentachaeta bellidiflora white-rayed pentachaeta	FE, SE, 1B	Found in valley and foothill grassland on open dry rocky slopes and grassy areas. Often on serpentinite at elevations of 35-620m. (*March-May*)	**Not present.** Suitable habitat with serpentinite soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcornflower	1B	Chaparral, coastal prairie, and coastal scrub. Found in mesic areas at elevations of 15-100m. (*March-June*)	**Not Present.** In San Mateo County, this species is located in ponded areas with impermeable clay soils not present within the Study Area. This species was not observed during the site assessment or the late February rare plant survey
Potentilla hickmanii Hickman's cinquefoil	FE, SE, 1B	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, and marshes and swamps. Found in freshwater marshes, seeps, and small streams in forested areas along the coast at elevations of 10-135m. (*April-August*)	**Not Present** Suitable streamside and marsh habitat present on site, and a documented occurrence of this species is located less than 3 miles away. However, this species was not identified during the site assessment or the late February rare plant survey.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Sanicula maritima adobe sanicle	FSC, SR, 1B	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie on moist clay or ultramafic soils from 30-240m. (*February-May*)	**Not present.** Suitable soils not present on the site. Known only from Potrero Hills area of San Francisco from before 1900. This species was not observed during the site assessment or the late February rare plant survey.
Silene verecunda ssp. *verecunda* San Francisco campion	FSC, 1B	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, and coastal prairie. Found on open slopes and exposed outcrops of mudstone or shale; one site on serpentine at elevations of 30-645m. (*March-August*)	**Not present.** Suitable open slopes with exposed mudstone and/or shale not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Triphysaria floribunda San Francisco owl's clover	FSC, 1B	Coastal prairie, coastal scrub, and valley and foothill grassland. Usually found on serpentinite at elevations of 10-160m. (*April-June*)	**Not present.** Suitable serpentinite soils not present on the site. This species was not observed during the site assessment or the late February rare plant survey.
Triquetrella californica coastal triquetrella	1B	Coastal bluff scrub and coastal scrub. Found at elevations from 10-100m. (Not Applicable)	**Low Potential.** Limited area suitable for coastal scrub species present on the site adjacent to Denniston Reservoir. However, mosses were not observed during the site assessment or late February rare plant survey.
Mammals			
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	FSC, CSC	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Very sensitive to human disturbance.	**Moderate potential.** May occur to forage over reservoir; no known roosting habitat available in vicinity.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area-
small-footed myotis *Myotis ciliolabrum*	FSC	Commonly found in arid uplands of California. Feeds on a variety of small flying insects. Seeks cover in caves, buildings, mines, crevices, and occasionally under bridges.	**Low potential.** May occur to forage over reservoir; Study Area is not typical of usual habitat.
long-eared myotis *Myotis evotis*	FSC	Primarily a forest associated species. Day roosts in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts include caves, mines and under bridges.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
fringed myotis *Myotis thysanodes*	FSC	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
long-legged myotis *Myotis volans*	FSC	Generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
Yuma myotis *Myotis yumanensis*	FSC, CSC	Known for its ability to survive in urbanized environments. Also found in heavily forested settings. Day roosts in buildings, trees, mines, caves, bridges and rock crevices. Night roosts associated with man-made structures.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
greater western mastiff bat *Eumops perotis californicus*	FSC, CSC	Found in a wide variety of habitat. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	**Moderate potential.** May occur to forage over reservoir; roosting habitat available in vicinity.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	FSC, CSC	Occurs in forest habitats of moderate canopy and moderate to dense understory. Also found in chaparral habitats. Feeds mainly on woody plants: live oak, maple, coffeeberry, alder, and elderberry	**Moderate potential.** May occur in habitats adjacent to reservoir and eucalyptus forest and in understory riparian habitats along Denniston Creek.
BIRDS			
American bittern *Botaurus lentiginosus*	FSC	Occurs in fresh emergent wetlands, often hiding, resting, and roosting solitarily amidst tall, dense, emergent vegetation, on ground, or near ground on log, stump, or on emergent plants.	**Moderate potential.** Freshwater emergent wetland present within reservoir and upstream along Denniston Creek.
Cooper's hawk *Accipiter cooperi*	CSC	Uses many habitats in winter and during migration; nests in deciduous and coniferous woodlands. Usually not found without dense tree stands, or patchy woodland habitat.	**Moderate potential.** Suitable habitat is present in woodland areas adjacent to reservoir. May roost and nest adjacent to Study Area and forage within Study Area.
sharp-shinned hawk *Accipiter striatus*	CSC	Uses many habitats in winter and during migration; breeds in oak, conifer, and riparian forests.	**Moderate potential.** Suitable habitat is present in woodland areas adjacent to reservoir. May roost and nest adjacent to Study Area and forage within Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
white-tailed kite *Elanus leucurus*	CFP	Forages in open to herbaceous stages of many habitats. Nests in shrubs and trees adjacent to grasslands.	**Moderate potential.** Suitable foraging habitat is present in coastal scrub areas and farmlands adjacent to reservoir. May roost and nest in vicinity of Study Area.
northern harrier *Circus cyaneus*	CSC	Forages in open to herbaceous stages of many habitats. Nests on ground in shrubby vegetation, usually near wetlands.	**Low potential.** May occur to forage over Study and in adjacent habitats. Unlikely to breed in nearby habitats.
golden eagle *Aquila chrysaetos*	CSC, CFP	Uses many habitats for foraging; breeds in cliffs or in remote large trees and structures.	**Low potential.** No known occurrences in region. Foraging habitat available within and adjacent to Study Area.
Vaux's swift *Chaetura vauxi*	CSC FSC	Forages over most terrains and habitats, often high in the air. Most important habitat requirement appears to be large hollow trees for nest sites.	**Low Potential.** Uncommon species; may occur to forage over Study Area. Potential breeding habitat available in nearby woodlands.
Allen's hummingbird *Selasphorus sasin*	FSC	Coastal scrub, valley foothill hardwood, valley foothill riparian habitats; also common in closed-cone pine-cypress, urban, and redwood habitats.	**Low potential.** Suitable foraging and breeding habitat available in coastal scrub habitat adjacent to Study Area. May occur incidentally within Study Area.
olive-sided flycatcher *Contopus cooperi*	FSC	Mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine. Requires large, tall trees, usually conifers for nesting and roosting.	**Low potential.** Coniferous forest not present on site, may occur as transient or to forage in the vicinity.
Pacific-slope flycatcher *Empidonax difficilis*	FSC	Widespread in warm moist woodlands, including valley foothill and montane riparian.	**Low potential.** May occur in riparian habitats up and downstream of Study Area. May occur incidentally within Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
purple martin *Progne subis*	CSC	Frequents old-growth, multi-layered, open forest and woodland with snags in the breeding season.	**Low Potential.** No old growth forest present on site, may occur as transient.
California thrasher *Toxostoma redivivum*	FSC	Common resident of foothills and lowlands in cismontane California. Occupies moderate to dense chaparral habitats and extensive thickets in young or open valley foothill riparian habitat.	**Low potential.** Suitable habitat available for this species in coastal scrub habitat adjacent to Study Area. May pass through Study Area occasionally.
yellow warbler *Dendroica petechia brewsteri*	CSC	Nests in riparian stands of willows, cottonwoods, aspens, sycamores, and alders. Also nests in montane shrubbery in open conifer forests.	**High potential.** Suitable breeding habitat is available for this species upstream and adjacent to the reservoir. May forage among emergent vegetation in reservoir.
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	FSC, CSC	Frequents low, dense vegetation near water including fresh to saline emergent wetlands. Brushy habitats used in migration. Forages among wetland herbs and shrubs for insects primarily.	**High potential.** Suitable emergent wetland vegetation breeding habitat available for this species within and adjacent to the Study Area.
tricolored blackbird *Agelaius tricolor*	FSC, CSC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs.	**High potential.** Cattail/tule habitat within reservoir provides suitable breeding habitat for this species.
AMPHIBIANS AND REPTILES			
California red-legged frog *Rana aurora draytonii*	FT, CSC	Ponds, pools, or in slow-moving perennial to ephemeral streams, where water remains long enough for breeding and development of young. Emergent or shoreline riparian vegetation is the preferred but not essential habitat.	**Present.** Egg masses observed during WRA site assessment. Study Area provides excellent aquatic and upland habitat for the species.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
western pond turtle *Clemmys marmorata*	CSC, FSC	Ponds and pools with woody debris, overhanging vegetation and rocky outcrops for basking and thermoregulation.	**High potential.** Suitable habitat available in reservoir though no known occurrences documented. Connectivity to other source populations may preclude occurrence.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE	Ponds, lakes, reservoirs, streams, and drainage ditches, that are bordered at least partially by dense emergent or riparian vegetation, and nearby grasslands and brush.	**Moderate potential.** Suitable habitat available in reservoir though no known occurrences documented. Connectivity to other source populations may preclude occurrence. Species is very uncommon in its former range.
FISH			
steelhead-Central California Coast ESU *Oncorhynchus mykiss*	FT, NMFS	Federal listing includes all runs from the Russian River, south to Soquel Creek, inclusive. Adults spawn in cool streams with a substrate of clean gravel and cobbles. Juveniles remain in the stream for one or more years before migrating to the sea.	**Not present.** Downstream barriers along Denniston Creek prevent steelhead from migrating upstream. Landlocked steelhead (resident trout) present above and below dam.
INVERTEBRATES			
bumblebee scarab beetle *Lichnanthe ursina*	FSC	Inhabits coastal sand dunes from Sonoma county south to San Mateo County	**Not present.** Sand dune habitat not present on or adjacent to Study Area
San Bruno elfin butterfly *Incisalia mossii bayensis*	FE	Found in coastal, mountainous area with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Larval host plant is *Sedum spathulifolium*.	**Not present.** Suitable habitat not available for this species at the Study Area.

Species	Status	Typical Habitat Plants- (Blooming Period)	Potential for Occurrence in the Study Area
Mission blue butterfly *Icaricia icarioides missionensis*	FE	Inhabits grasslands of the San Francisco Penisula. Three larval hostplants: *Lupinus albifrons, L. variicolor*, and *L. formosus*.	**Not present.** Suitable habitat not available for this species at the Study Area.
monarch butterfly *Danaus plexippus*		Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind protected tree groves, with nectar and water sources nearby.	**Moderate potential.** Suitable winter roost sites exist in tall eucalyptus up and downstream of reservoir and in the vicinity of the spoils disposal area.

*** Key to status codes:**

Status codes used above are:

FE - Federal Endangered
FT - Federal Threatened
FC - Federal Candidate
FPD - Federal Proposed Delisted
FSC - United States Fish and Wildlife Service Federal Species of Concern
NMFS - Species under the Jurisdiction of the National Marine Fisheries Service
SE - State Endangered
ST - State Threatened
CSC - CDFG Species of Special Concern, CSC (Draft) - 4 April 2001 Draft
CFP - California Fully Protected Species
None - No status given but rookery sites are monitored by CDFG
List 1B - CNPS 1B List, Endangered, Threatened, or Rare in California
List 2 - CNPS List 2 Plants that are rare, threatened, or endangered in California, but more common elsewhere
List 3 - CNPS List 3 Plants about which more information is needed - a review list

Appendix B

Plant species observed within the Denniston Reservoir Study Area, March 2005

Appendix B. Plant species observed within the Denniston Reservoir Study Area, March	
Scientific Name	**Common Name**
Acacia decurrens	green wattle
Achillea millefolium	yarrow
Anagalis arvensis	scarlet pimpernel
Artemisia californica	California sagebrush
Avena barbata	slender wild oat
Avena fatua	common wild oat
Baccharis pilularis	coyote brush
Brassica nigra	black mustard
Bromus diandrus	ripgut grass
Bromus hordeaceus	soft chess
Capsella bursa-pastoris	Shepard's purse
Carpobrutus edulis	ice plant
Cerastrium glomeratum	chickweed
Cirsium vulgare	bull thistle
Conium maculatum	poison hemlock
Convolvulus arvensis	bindweed
Cortaderia jubata	pampas gras
Cotoneaster pannosa	cotoneaster
Cyperus eragrostis	umbrella sedge
Cynosurus echinatus	dogtail grass
Cytisus scoparius	Scotch broom
Epilobium ciliatum ssp. watsonii	willow herb
Eriophyllum staechaedifolia	golden yarrow
Erodium botrys	filaree
Eucalyptus globulus	blue gum eucalyptus
Genista monosperma	French broom
Geranium dissectum	cut leaf geranium
Gnaphalium luteo-alba	common cudweed

Scientific Name	Common Name
Hordeum marinum ssp. gussoneanum	Mediterranean barley
Hordeum murinum ssp. leporinum	barley
Juncus effusus	soft rush
Juncus mexicanus	Mexican rush
Juncus patens	spreading rush
Lactuca serriola	prickly lettuce
Lolium multiflorum	Italian ryegrass
Lotus corniculatus	bird's foot trefoil
Malva sp.	mallow
Marah fabaceous	manroot
Medicago polymorpha	California burclover
Oenanthe sarmentosa	water parsley
Oenothera elata	evening primrose
Oxalis pes-caprae	Bermuda buttercup
Picirís echioides	bristly ox tongue
Plantago lanceolata	English plantain
Poa annua	annual hairgrass
Potentilla anserina	cinqefoil
Raphanus sativus	wild radish
Ribes sp.	currant
Rubus ursinus	blackberry
Rumex cispus	curly dock
Salix lasiolepis	arroyo willow
Scirpus californicus	hard-stemmed bulrush
Scrophularia californica	California figwort
Senecio milkanioides	German ivy
Senecio sylvaticus	woodland groundsel
Solanum americanum	American nightshade

Scientific Name	Common Name
Tropaeolum majus	nasturtium
Typha angustifolia	narrowleaf cattail
Urtica dioica	stinging nettle
Vicia sativa	common vetch
Vulpia myuros	six weeks fescue

Appendix C

List of wildlife species observed in the Study Area on February 2, 2004

Appendix C. List of wildlife species observed in the Study Area on February 2, 2004			
Common Name	**Scientific Name**	**Status**	**Notes**
Birds			
Red-tailed hawk	*Buteo jamaicensis*	common	Roosting in eucalyptus trees
American coot	*Fulca americana*	common	Several observed in reservoir
Kingfisher	*Ceryle alcyon*	common	Foraging in reservoir
Anna's hummingbird	*Calypte anna*	common	Observed throughout
Chesnut-backed chickadee	*Poecile rufescens*	common	Singing in willow riparian upstream
Wrentit	*Chamaea fasciata*	common	Heard in adjacent scrub habitat
Hermit thrush	*Catharus guttatus*	common	Downstream along creek
Golden-crowned sparrow	*Zonotrichia atricapilla*	common	Observed in adjacent scrub habitat
Song sparrow	*Melospiza melodia*	common	Observed throughout
Amphibians			
California red-legged frog	*Rana aurora draytonii*	federally threatened	CRLF eggs observed in reservoir in late January 2005
Pacific chorus frog	*Pseudocaris regilla*	common	Heard throughout

Appendix D
Representative Site Photographs

Appendix C. Representative Site Photographs

Above: Overview of dredged spoils disposal area.

Below: Close-up of disposal area.

Photographs taken on February 2, 2005.

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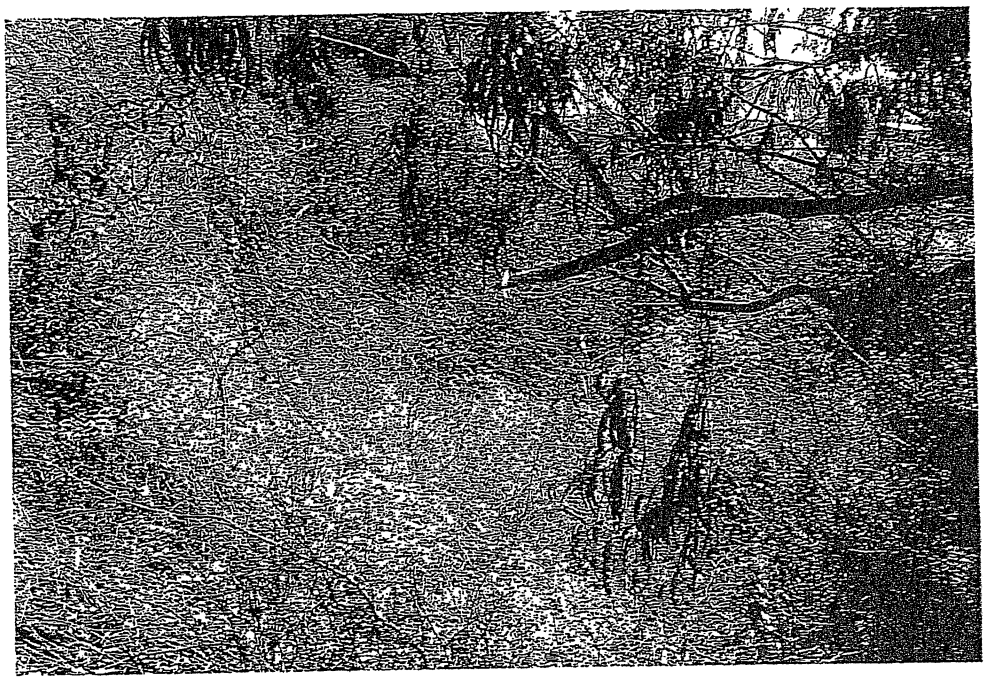

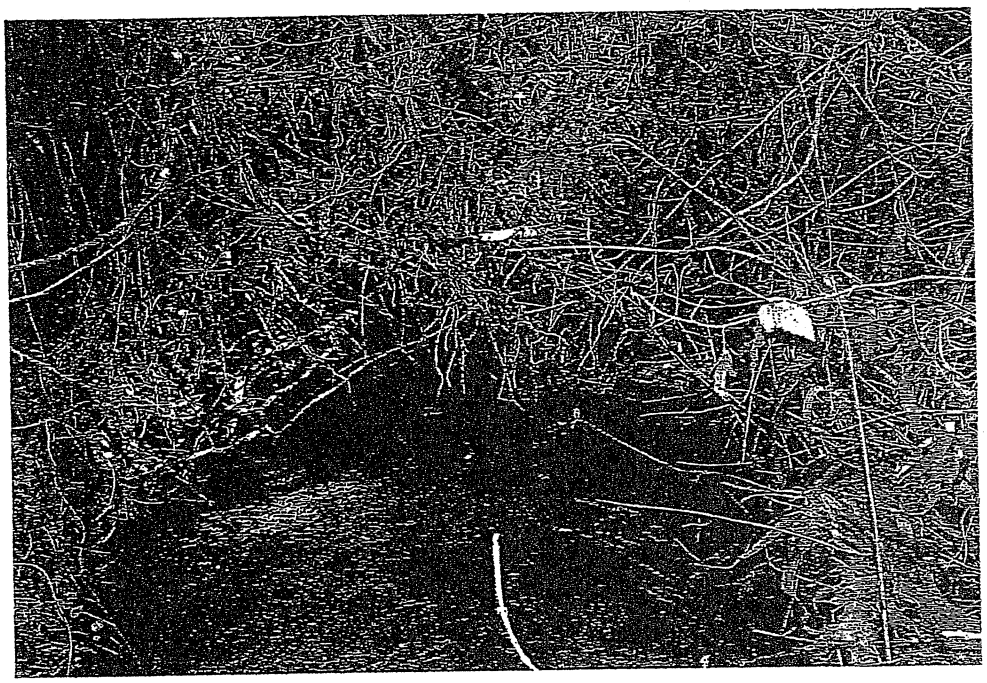

Appendix C. Representative Site Photographs

Above: Dense riparian corridor along Denniston Creek below the reservoir dam.

Below: Opening in riparian thicket above Denniston Creek below the reservoir dam.

Photographs taken on February 2, 2005.

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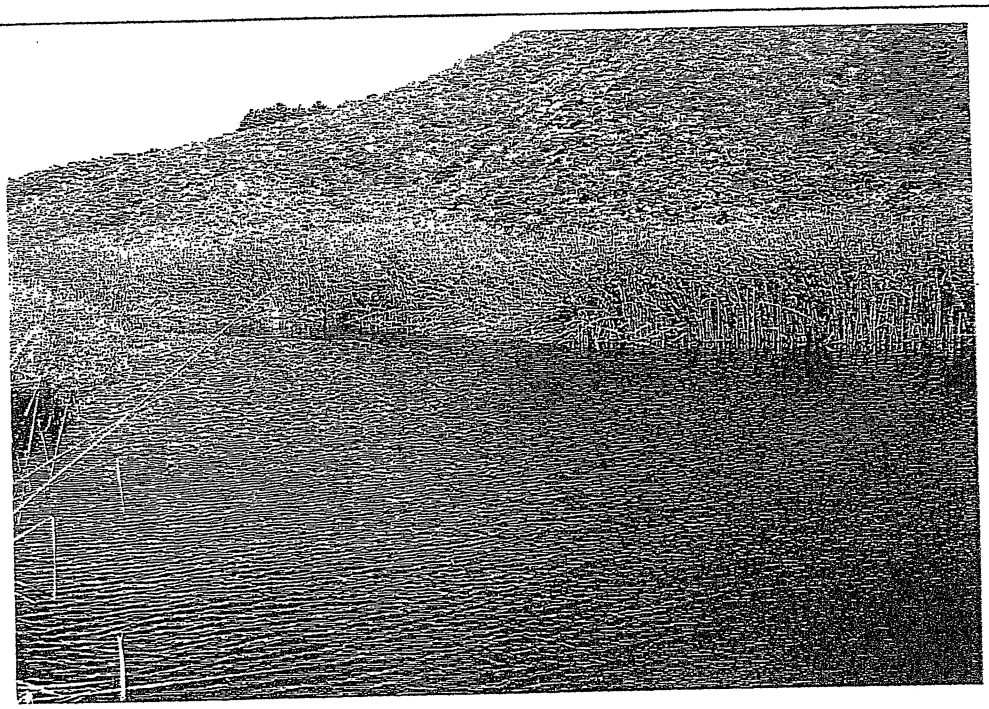
ENVIRONMENTAL CONSULTANTS



Appendix C. Representative Site Photographs

Above: Denniston Reservoir proposed dredging site.

Below: Dam face of Denniston Reservoir within footprint of proposed dredging activities.

Photographs taken February 6, 2005.

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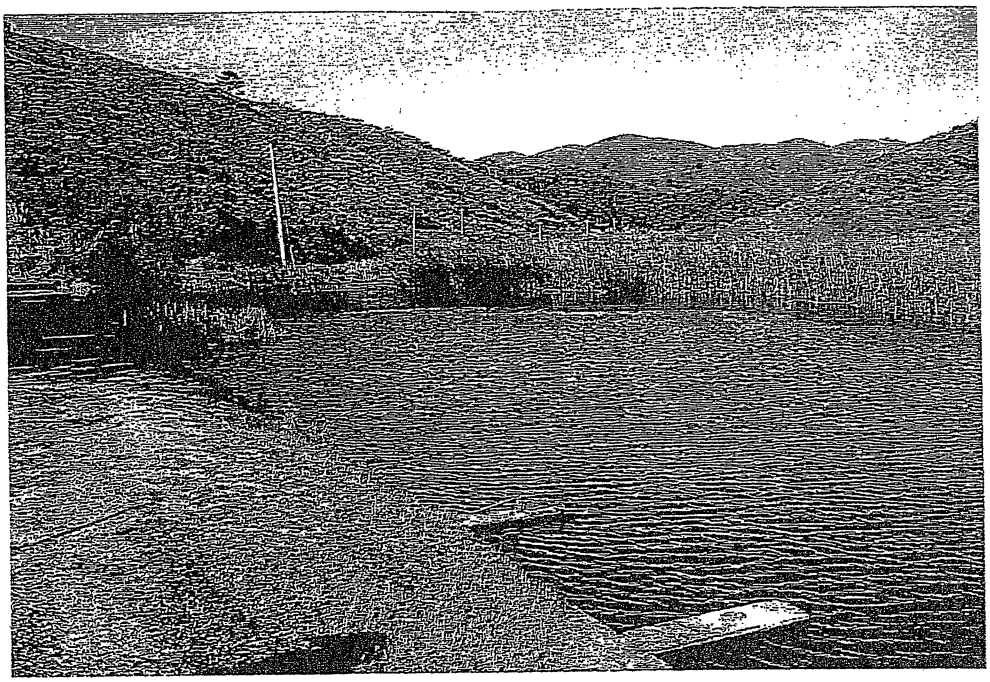
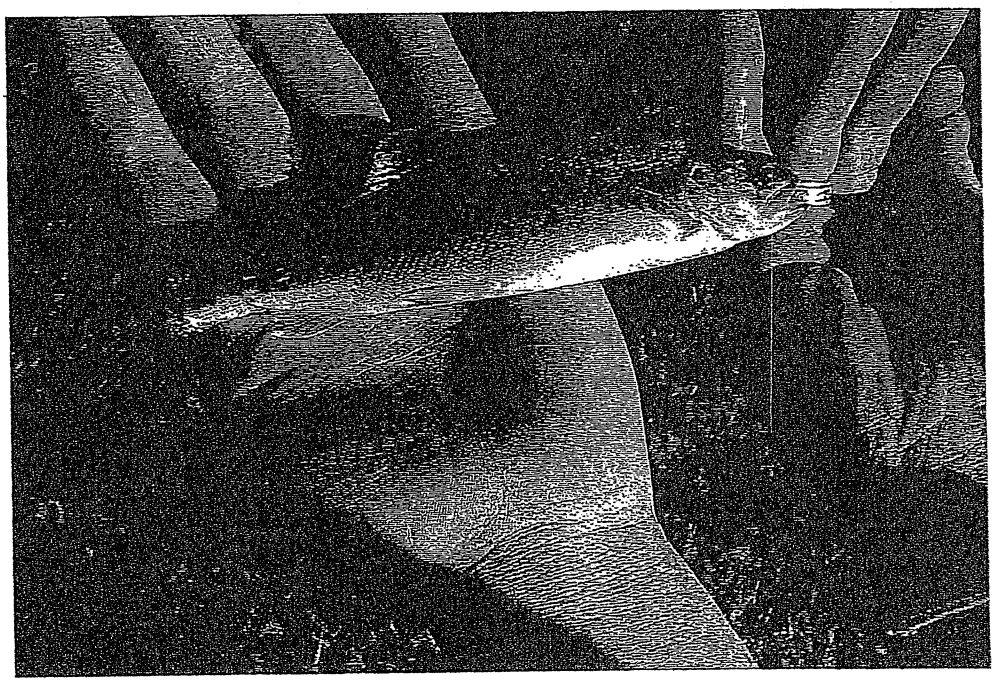
ENVIRONMENTAL CONSULTANTS





Appendix C. Representative Site Photographs

Above: Upland habitats adjacent to proposed dredging area (left upper corner of reservoir).

Below: Resident rainbow trout in Denniston Reservoir

Photographs taken on February 2, 2005.

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Date	flow	Raw trib	Sump
4/24/14	400	9.98	7.7
4/23/14		4.06	7.9
4/22/14		3.93	8.4
4/21/14		3.83	8.6
4/20/14		3.61	8.8
4/19/14		5.77	8.4
4/18/14		5.98	9.1
Start up