

US Army Corps of Engineers®

Regulatory Branch 333 Market Street San Francisco, CA 94105-2197

SAN FRANCISCO DISTRICT SAN HALES

NUMBER: 29867S PROJECT MANAGER: Molly Martindale PHONE: 415-977-8448

1. **INTRODUCTION:** The East Bay Municipal Utility District (EBMUD) (Atta Yiadom, East Bay Municipal Utility District, 375 11th Street, Oakland, California, 94612, [(510) 287-1044], through its agent, ESA Associates, has applied for a Department of the Army permit to place approximately 3.66 acres of fill in waters of the U.S. while placing up to 1,000,000 cubic yards of material to implement a seismic upgrade at San Pablo Dam (Dam). This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. Section 1344).

The Dam is located on EBMUD property along San Pablo Dam Road, adjacent to Kennedy Grove Regional Recreation Area, and the City of Richmond's El Sobrante neighborhood, in Contra Costa County (Figure 1).

2. PURPOSE AND NEED: San Pablo Dam serves four water supply functions for western Contra Costa County EBMUD water users: it allows for regulation of the supply of water coming from the Mokelumne Aqueduct; it stores runoff from the local Bear and San Pablo Creeks; it provides standby storage for emergencies; and it's a source of raw water for the Sobrante and San Pablo Water Treatment Plants. Along with the surrounding area, it also provides fishing, boating, picnicking, nature study, and hiking opportunities.

San Pablo Dam has a capacity at the spillway crest elevation (314 feet) of approximately 38, 600 acrefeet, but the water level is normally kept at 299 feet to DATE: December 22, 2006 RESPONSE REQUIRED BY: February 2, 2007 Email: Molly.Martindale@usace.army.mil

provide room for high-flow events. In 2004 the California Department of Safety of Dams (DSOD) and EBMUD conducted an updated evaluation of the seismic stability of the dam in the event of a magnitude 7.25 earthquake on the nearby Hayward-Rodgers Creek Fault. The study found that the hydraulic fill material in the existing dam embankment, and the alluvium foundation underlying the embankment, are susceptible to liquefaction in the modeled seismic event. It was determined that, in the dam's present condition, the water level in San Pablo Reservoir would have to be lowered to 294 feet, where it is currently held.

Even with the reduced water level, the dam would be expected to slump in a magnitude 7.25 earthquake and become very unstable, potentially leading to a subsequent sudden release of water downstream. The entire reservoir would have to be drained immediately and repaired on an emergency basis.

Alternatively, the dam could be decommissioned. Decommissioning would require other EBMUD facilities to be upgraded to perform the functions currently provided by San Pablo Reservoir, which would likely result in associated environmental impacts at the locations of those facilities. Also, the recreational opportunities at the San Pablo Reservoir are particularly popular and difficult to move to another location in the same area.

Since EBMUD desires to continue operating San Pablo Dam and Reservoir, the Department of Water Resources Division of Safety of Dams has required EBMUD to "pursue an aggressive schedule for the remediation of San Pablo Dam."

3. PROPOSED PROJECT: Therefore, EBMUD is proposing to permanently fill 2.46 acres of wetlands to reconstruct the buttress on the downstream face of the dam, and 0.9 acres of creek channel along an existing fire road to improve access for heavy equipment between the project site and the Scow Canyon borrow area (Figures 2, 2a, and 2b).

According to the Biological Assessment (dated August 2006) prepared by ESA for EBMUD, California red legged frog (*Rana aurora draytonii*) (CRLF), Alameda whipsnake (*Masticophis lateralis euryxanthus*) (whipsnake) and bald eagle (*Haliaeetus leucocephalus*) are present in the area. The Corps has initiated consultation with the U.S. Fish & Wildlife Service on these species.

The wetlands to be filled are located between the present toe of the dam and Kennedy Grove Park access road. The fill is necessary in order to expand the dam buttress as shown on Figure 3.

First of all, the buttress and foundation soils against the downstream toe of the dam will be excavated and stockpiled. [The intent is to not intercept the groundwater level.] Following the initial excavation step, the remaining foundation material at the dam's toe will be strengthened in place by being mixed with cement grout using an augering system. The resulting soil-cement columns will reach bedrock and will form a series of grids.

When this process is completed, a new, larger buttress will be constructed at, and extending of the existing toe. The stockpiled soil from the initial excavation, and additional clayey soil brought from the Scow Canyon borrow area, will be moisture-conditioned and compacted to form this buttress.

In order to facilitate the transport of the large amount of fill material needed from the Scow Canyon area to the project at the dam face, EBMUD plans to widen curves and some narrow portions of an existing fire road, which would result in 0.9 acre of fill in creek channels.

The project is expected to take two years to complete. Work will generally occur from 7:00 am to 7:00 pm, Monday through Friday, with occasional late and/or weekend work to address unexpected occurrences. Construction traffic to the site would average 23 round-trips by trucks and 38 round-trips by personal vehicles. Should all aspects of the construction be occurring at the same time, the maximum daily trips could rise to 140 round-trips by trucks and 70 roundtrips by personal vehicles. Public access to Kennedy Grove Regional Park via the existing EBMUD access road would be closed to the public Monday through Friday. On weekends, public access along the road would be allowed, with traffic controls, such as flaggers, in place.

In addition, the cement-deep-soil-mixing operation would proceed on-site six days a week (Monday through Saturday), working in two 10-hour shifts per day.

Mitigation: Although no specific proposal has yet been received by the Corps, EBMUD has stated that they do intend to provide appropriate mitigation, most likely on land they already own.

4. OTHER STATE AND FEDERAL PERMITS:

Water Quality Certification - Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicant has provided the Corps with evidence that he has submitted a valid request for State water quality certification to the San Francisco Bay Regional Water Quality Control Board. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume a waiver of water quality certification if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issue that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 by the close of the comment period of this Public Notice.

5. ENVIRONMENTAL ASSESSMENT: The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 333 Market Street, San Francisco, California 94105-2197.

6. EVALUATION OF ALTERNATIVES: Evaluation of the proposed activity's impact will include application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). An evaluation has been made by this office that the proposed project is water dependent.

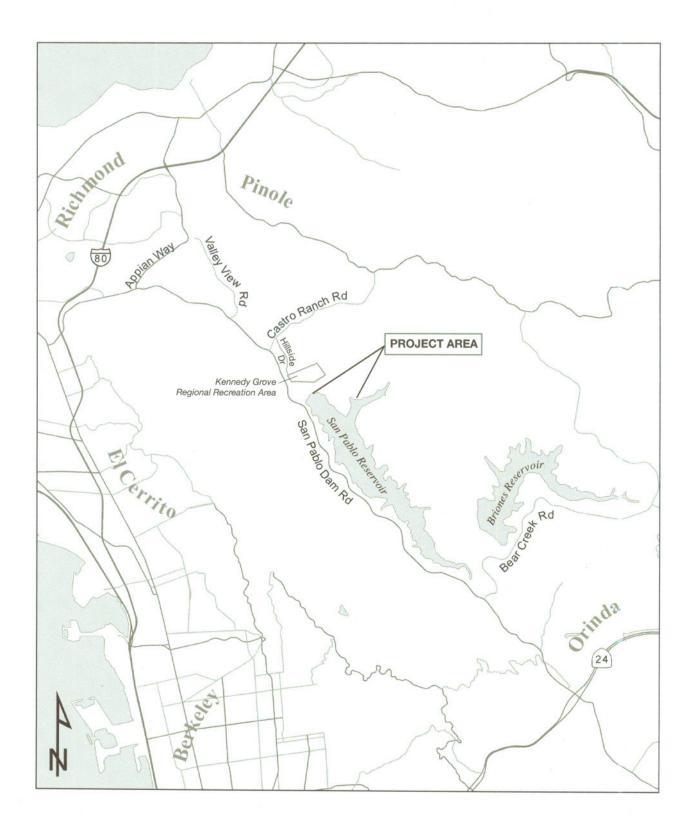
7. **PUBLIC INTEREST EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including its cumulative effects. Among those factors are: conservation,

economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

8. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

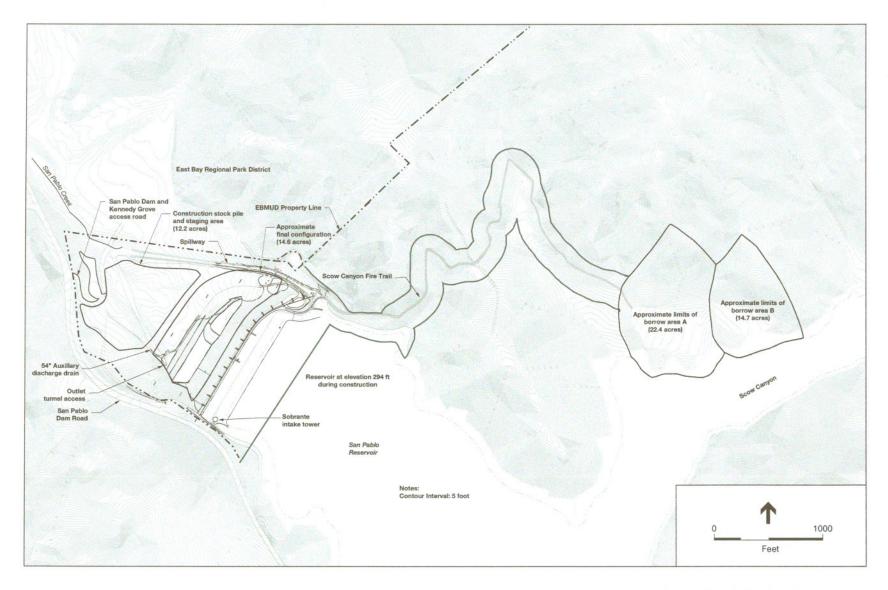
9. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 333 Market Street, San Francisco, California 94105-2197. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be

obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting Molly Martindale of our office at telephone 415-977-8448 or E-mail: Molly.Martindale@usace.army.mil. Details on any changes of a minor nature that are made in the final permit action will be provided upon request.



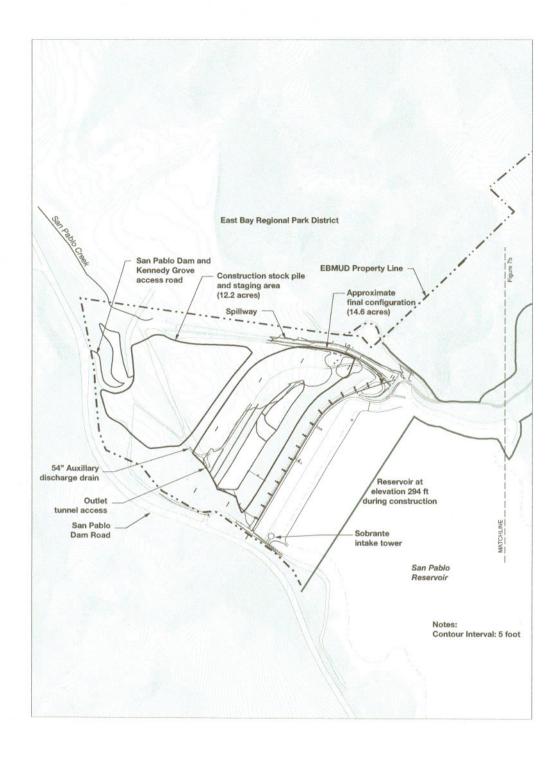
San Pablo Dam Seismic Upgrade Regulatory Permit . 205153 Figure 1 of 3 Project Location

SOURCE: EBMUD, 2005



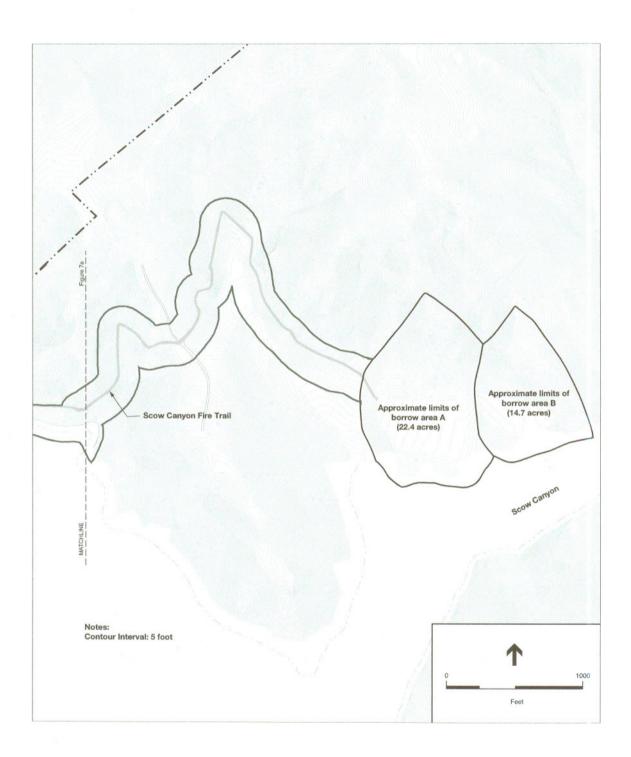
SOURCE: Geomatrix, 2005

- San Pablo Dam Seismic Upgrade Regulatory Permit . 205153 Figure 2 of 3 Proposed Construction Work Areas



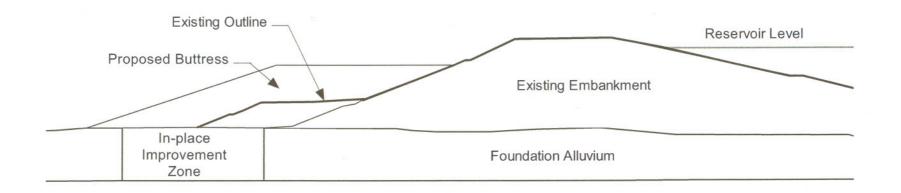
San Pablo Dam Seismic Upgrade Regulatory Permit . 205153 Figure 2a of 3 Proposed Construction Work Areas

SOURCE: Geomatrix, 2005



San Pablo Dam Seismic Upgrade Regulatory Permit . 205153 Figure 2b of 3 Proposed Construction Work Areas

SOURCE: Geomatrix, 2005



SOURCE: Geomatrix, 2005

San Pablo Dam Seismic Upgrade Regulatory Permit . 205153 Figure 3 of 3 Proposed Seismic Upgrade Schematic Cross Section