

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

TENTATIVE ORDER

RESCISSION OF SITE CLEANUP REQUIREMENTS ORDER NO. 01-095 for:

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

for the:

**FORMER PENINSULA SPORTSMEN'S CLUB
MENLO PARK, SAN MATEO COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) finds that:

Site Description and History

1. The San Francisco Public Utilities Commission (SFPUC or Discharger) owns the former Peninsula Sportsmen's Club (PSC) site, which is located east of University Avenue in Menlo Park at the southwest end of the Dumbarton Bridge (Figure 1). The site lies on the upland side of a former salt evaporation pond (Cargill Pond SF-2). A levee separates the site from the salt pond.
2. From 1939 to 1994, the SFPUC leased about 30 acres to the PSC for use as a trap- and skeet-shooting range. These activities left large amounts of lead shot, clay pigeon debris, and shell casings on portions of the site, and deposited lead shot in the adjacent portion of the salt pond.

Regulatory History

3. The Water Board issued a Cleanup and Abatement Order (No. 94-031) in 1994 requiring the PSC to investigate the site for contaminants and, if necessary, to clean up the site. Later the same year, the PSC declared bankruptcy, and the SFPUC, as the landowner, accepted responsibility for the cleanup.
4. In 2001, the Water Board adopted Site Cleanup Requirements (SCR) Order No. 01-095. This SCR required the SFPUC to develop and implement a remedial action plan (RAP) to cleanup lead and associated contamination to an extent that would no longer pose an unacceptable risk to human health and ecologic receptors.

Summary of Site Impacts

5. *Soil Impacts:* Decades of activity by the PSC on parts of the site that had served as firing ranges resulted in extensive soil contamination in portions of the site. Investigations conducted by the SFPUC revealed the presence of lead, polynuclear aromatic hydrocarbons (PAHs, from breakdown of clay pigeon debris), and minor amounts of arsenic and antimony (used in the production of lead shot) in the upland areas and levee. Significant amounts of lead shot were also found in the salt pond sediments.
6. *Water Impacts:* Routine groundwater monitoring has been conducted at the PSC site since July 2001, as required in Order No. 01-095. Groundwater monitoring has shown no evidence of

significant water quality impacts from activities at the site. Water Board staff approved a reduction in monitoring frequency from quarterly to semi-annually in 2009.

Risk Assessment and Remedial Objective

7. Risk assessments conducted by the SFPUC found that risk to human health from lead and other site contaminants in soil was minimal under the existing and projected land uses. However, risk associated with incidental ingestion of lead shot by wildlife (primarily birds) was determined to be unacceptable. Thus, site cleanup was planned and conducted with the primary objective of reducing ecologic risks to acceptable levels.

Soil Cleanup Standards

8. Based on the risk assessment, the Water Board approved the following soil cleanup standards for the site:

Phase 1 Area:

- a) Removal of all visible clay pigeon debris
- b) Cleanup of lead shot to 10 shot per square foot, to a depth of 3 inches
- c) Residual lead concentration:
 1. Firing Range & Levee = 308 mg/kg (soil)
 2. Clay Pigeon Debris Area & Seasonal Pond = 266 mg/kg (sediment)
- d) Residual arsenic (soil/sediment) = 63 mg/kg
- e) Residual antimony (soil/sediment) = 25 mg/kg
- f) Total PAH concentration:
 1. Firing Range & Levee = 10 mg/kg (soil)
 2. Clay Pigeon Debris Area & Seasonal Pond = 4 mg/kg (sediment)

Phase 2 Area:

- a) Cleanup of lead shot to 10 shot per square foot (to a depth of 3 inches)
- b) Residual lead concentration:
 1. Levee = 308 mg/kg (soil)
 2. Salt Pond = 335 mg/kg (sediment)
- c) Residual arsenic (soil/sediment) = 29 mg/kg
- d) Residual antimony (soil/sediment) = 25 mg/kg

Remedial Action Plans

9. Because groundwater beneath the site was not significantly impacted, remedial actions were focused on soil cleanup. To facilitate the development of the RAP, the project site (known as the Baylands Recovery Project) was divided into two areas, or phases. The Phase 1 area consisted of the upland area south of the levee; this area was further subdivided into the Clay Pigeon Debris Area, the Seasonal Pond, and the East and West Firing Range areas (Figure 2). The Phase 2 area consisted of the Salt Pond and Levee (Figure 2). A tidal slough area located to the east was found to be relatively unimpacted by site activities. Because of the relatively undisturbed condition of the tidal slough area and the presence of an endangered species (the salt marsh harvest mouse) there, the Water Board required no remediation in this area.

The SFPUC evaluated various remedial actions to remove metals and PAHs from soils. For both Phase 1 and Phase 2 areas, excavation followed by onsite stabilization and offsite disposal

of impacted soils was selected as the preferred remedy. The SFPUC submitted a Final RAP for the Phase 1 area in February 2003. An amended version of the Final RAP submitted in November 2003 was approved by the Water Board on December 22, 2003. The Final RAP for the Phase 2 area was submitted in March 2004 and approved by the Water Board in April 2004.

Site Remediation/Restoration

10. *Phase 1:* Some site restoration work, such as the removal of visible surface debris, began under Water Board oversight in 2000, prior to the development of RAPs and approval of site cleanup goals. The SFPUC performed a significant amount of soil remediation work in the Phase 1 area in 2002 and 2004, including attainment of cleanup goals in the Clay Pigeon Debris Area. However, soil cleanup goals were not achieved in the Firing Range and Seasonal Pond areas in 2004. Additional remediation was performed during 2007 and 2008 to achieve cleanup goals in these areas. A total of 17,190 cubic yards of material was excavated in the Phase 1 area to meet cleanup goals. The cleanup levels for lead shot and residual lead, arsenic, and antimony in soil were achieved in 2008 in the area identified as Phase 1A on Figure 2.
11. The final portion of the Phase 1 area (the Firing Range East; Figure 2) was remediated under a separate Corrective Action Plan (CAP). The CAP for Firing Range East, which proposed to reduce risk to acceptable levels through the construction of a three-layer cap rather than excavation, was approved by Water Board staff in 2008. About 45,650 cubic yards of clean soils were imported for cap construction. The cap, consisting of a low-permeability clay layer, a drainage layer, and an upper vegetation support layer, was completed in 2009-2010, and received Water Board approval in June 2011.
12. *Phase 2:* The SFPUC completed remediation in the Phase 2 area in 2004 – 2005, and submitted a Phase 2 Completion Report demonstrating the attainment of Phase 2 cleanup goals in September 2006. Achieving the cleanup goals in the Salt Pond and Levee required the removal of 48,249 cubic yards of sediment and soil. Water Board staff approved the completion of Phase 2 cleanup in September 2006. The U.S. Fish & Wildlife Service concurred with the Salt Pond cleanup and accepted transfer of the Phase 2 area into the Don Edwards National Wildlife Refuge in September 2006.
13. Completion of site remediation and restoration activities at the PSC site cost approximately 25 million dollars.

Summary

14. The SFPUC has successfully met the cleanup objectives of SCR Order No. 01-095 and the Water Board considers site remediation/restoration complete. Thus, SCR Order No. 01-095 is no longer necessary and should be rescinded.

Closure Activities

15. *Closure of Groundwater Monitoring Wells:* The SFPUC understands that it is responsible for properly closing and abandoning all existing groundwater monitoring wells and piezometers at the site in accordance with State and county requirements. All wells must be closed within twelve months from the adoption date of this Order.

16. *Cap Inspection and Maintenance*: The SFPUC is responsible for ensuring the integrity of the soil cap that was constructed as a final remedy over the former Firing Range East. The Baylands Recovery Project Remedial Action and Final Phase 1B Completion Report, submitted by SFPUC in November 2010, contained a Site Inspection and Maintenance Plan (IMP) for the cap. Water Board staff concurred with this plan on June 14, 2011. The SFPUC has already initiated the IMP.

CEQA, NOTIFICATION, AND PUBLIC HEARING

17. The rescission of Site Cleanup Requirements will have no potential for causing a significant effect to the environment and is therefore exempt from the California Environmental Quality Act (Public Resources Code § 21000 et seq.) pursuant to Title 14, Cal. Code Regs., § 15061(b)(3).

18. The Water Board has notified the Discharger, and interested agencies and persons of its intent to rescind site cleanup requirements contained in SCR Order No. 01-095, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

19. The Water Board, in a public meeting, heard and considered all comments pertaining to the rescission of site cleanup requirements for the site.

IT IS HEREBY ORDERED that SCR Order No. 01-095 is rescinded.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Region on (Insert Date).

Bruce H. Wolfe
Executive Officer

Attachments:

Figure 1, Site Location Map
Figure 2, Site Map

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 Rescission of Site Cleanup Requirements
 Peninsula Sportsmen's Club

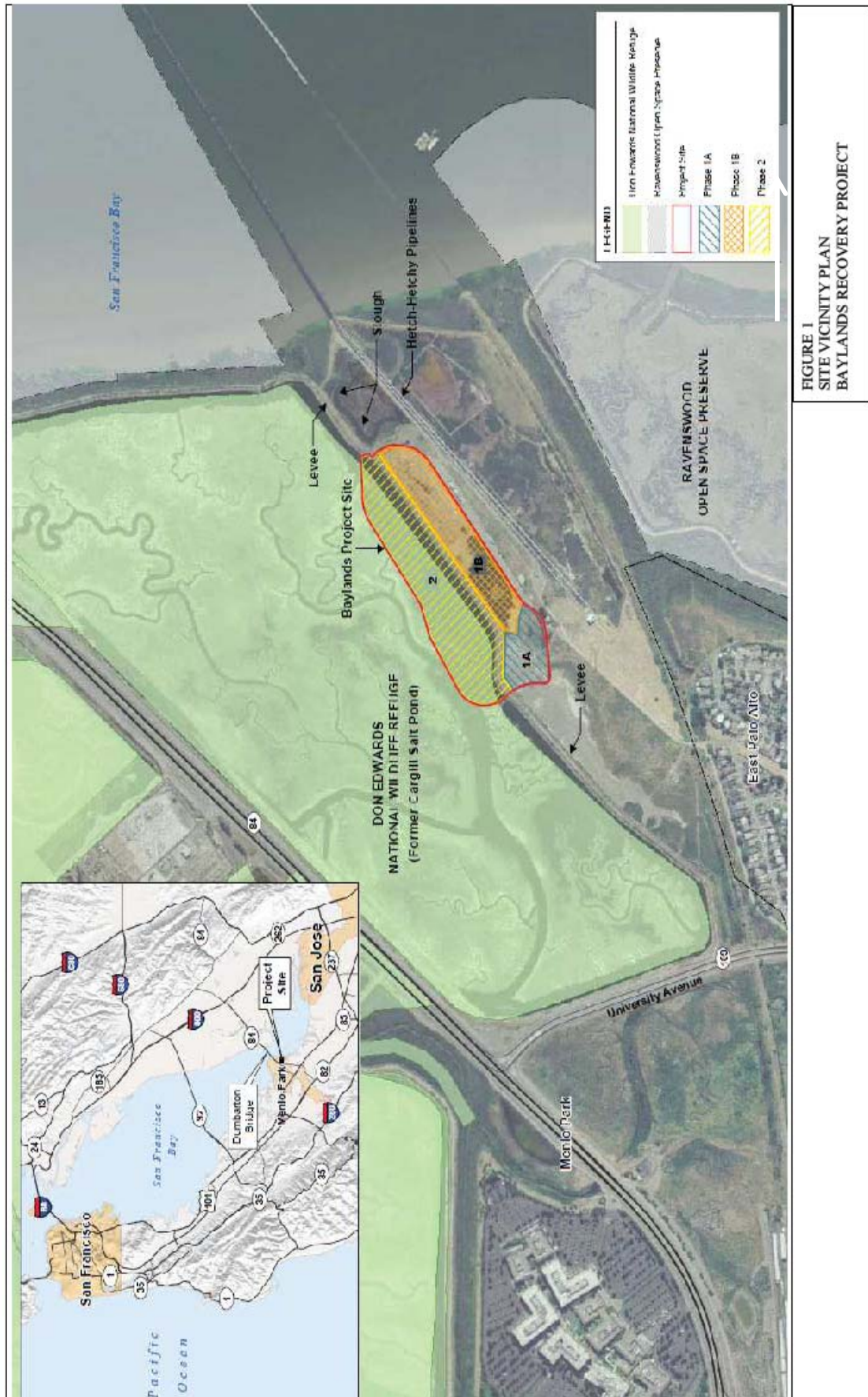


FIGURE 1
 SITE VICINITY PLAN
 BAYLANDS RECOVERY PROJECT

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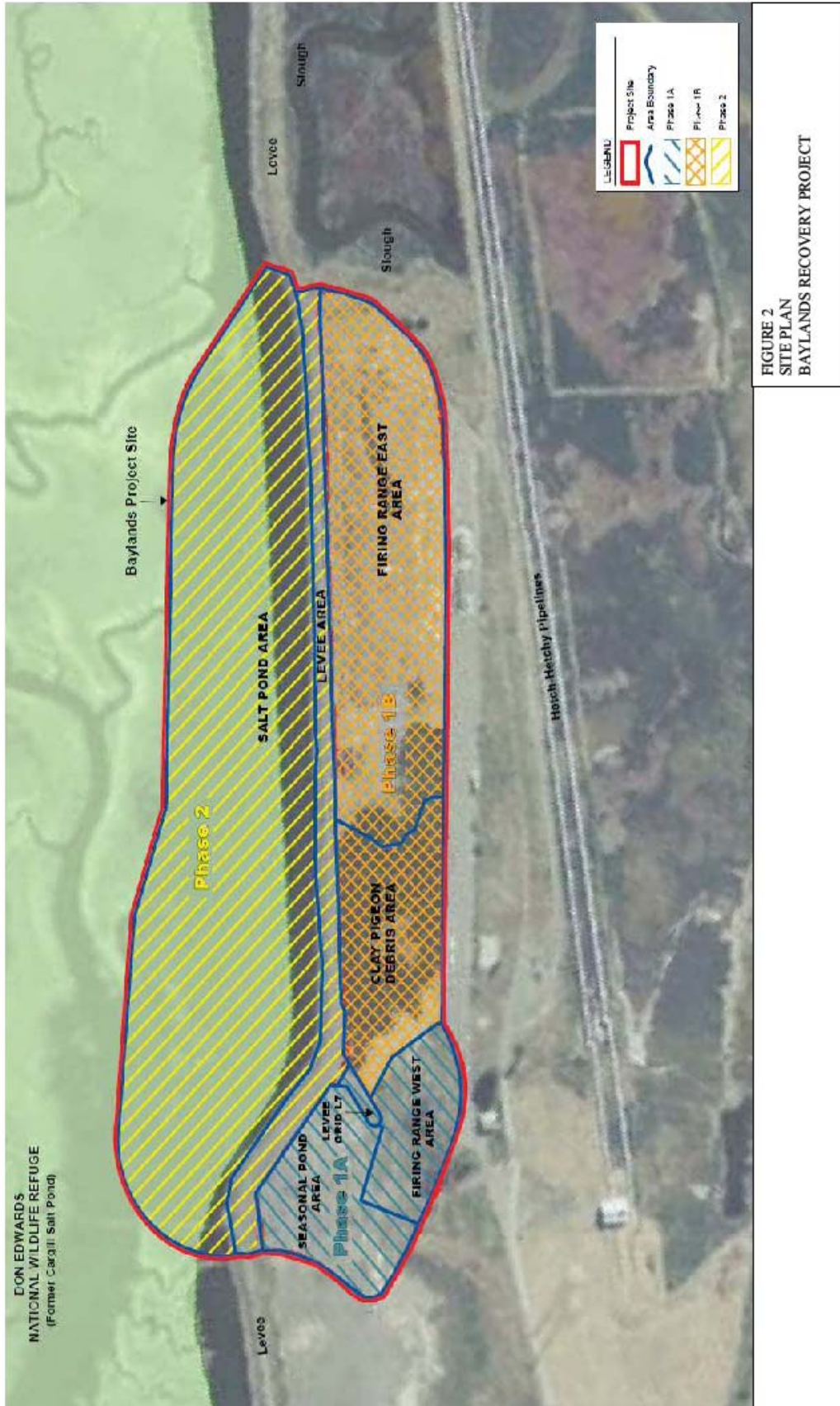


FIGURE 2
 SITE PLAN
 BAYLANDS RECOVERY PROJECT