

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 01-095

SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER NO. 94-031
FOR:

PENINSULA SPORTSMEN'S CLUB, INC., AND
THE CITY AND COUNTY OF SAN FRANCISCO'S
FORMER SKEET FIRING RANGE

MENLO PARK
SAN MATEO COUNTY

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

1. **Site Location:** The former Peninsula Sportsmen's Club Skeet Firing Range (hereinafter the site) has no formal street address and is located South of the Dumbarton Bridge, East of University Avenue, within the City of Menlo Park (Figure 1). The site consists of approximately 33 acres of land, owned by the City and County of San Francisco's Public Utilities Commission (SFPUC). Land use at the site is currently open space. Land use adjacent to the site includes: residential to the west and southwest, the Ravenswood Open Space Preserve to the south and southeast, Cargill's levee and salt pond immediately adjacent to the north and northwest, and the San Francisco Bay to the east (Figure 2). SFPUC's municipal water supply pipelines traverse the southern perimeter of the site.
2. **Site History:** The Peninsula Sportsmen's Club (PSC) operated a skeet shooting range on the site from the 1940s until mid-1994. As a result of these activities, lead pellets and polynuclear aromatic hydrocarbon (PAH) laden clay pigeon debris (clay pigeon debris) was distributed on surficial soil and sediment to a maximum depth of approximately two feet below ground surface (bgs). Lead pellets and clay pigeon debris were also deposited in a portion of the adjacent salt pond owned by the Cargill Salt Company (Cargill), and on/within the levee (also owned by Cargill) that divides the salt pond and SFPUC's property.
3. **Named Dischargers:** The PSC is named as a discharger due to its activities that resulted in lead and PAH contamination of soil, sediment, and water at the site and the adjacent salt pond and levee to the north. The SFPUC is named as a discharger due to its ownership of the property during and after the time of PSC's activity that resulted in the discharge.
4. **Order Purpose:** This Order defines the scope of work for cleanup of the site and rescinds Site Cleanup Requirements (SCR) Order No. 94-031.

5. **Regulatory Status:** In February 1994, the Board issued SCR Order No. 94-031 to the PSC and SFPUC, as the primary and secondary dischargers, respectively. Soon after the adoption of SCR No. 94-031, the PSC advised the Regional Board that it had no assets and could not comply with the Order. On July 29, 1999 the Board issued a letter requesting site characterization and remediation alternatives from the SFPUC. The SFPUC has agreed to be named as a discharger and will subsequently be responsible for compliance with this Order.
6. **Site Hydrogeology:** Surficial sediments in the Menlo Park area consist of alluvial deposits, Bay Mud and artificial fill. Based upon the results of soil borings and trench excavations, soils at the site consist of silty to sandy clays and imported fill consisting of silty to sandy clays mixed with construction debris.

Shallow regional groundwater flows from topographic highs west of the site towards the San Francisco Bay. Tidal fluctuations may influence the shallow groundwater gradient and magnitude near the San Francisco Bay margin. Groundwater depths in the Uplands Area (Figure 2) range from four feet bgs, during late spring, to approximately ten feet bgs, during late summer. A groundwater sample taken from the eastern portion of the site, near the Bay margin and Tidal Slough, had a total dissolved solids (TDS) concentration of 31,000 milligrams per liter (mg/L). Groundwater quality over the remainder of the site has not been evaluated.

7. **Remedial Investigation:** The site has been subdivided into six distinct geographic/ecological areas including the firing range area (southern site), clay pigeon stockpile area (central site), Cargill's levee (north-central site), seasonal wetlands (western site), tidal slough (eastern site), and the Cargill salt pond (northern site). A SFPUC's Site Investigation Report dated October 29, 1999 identified lead and PAHs as chemicals of interest (COI) at the site. For the majority of the site, the extent of contamination with COI correlates to the distribution of source material (e.g., clay pigeon debris and lead shot). Based on the results of site investigations the following is a description of the subunits presented above:
 - **Firing Range** – The firing ranges area consists of approximately 4.2 acres of land located south of the Cargill salt pond, north of and including an asphalt firing line, east of the seasonal wetlands and clay pigeon stockpile area, and west of the tidal slough. Maximum concentrations of lead in soil are approximately 8,200 milligrams per kilogram (mg/kg). Lead contamination appears to be limited to the upper two feet of soil. Lead shot is distributed surficially through the firing range, with the majority of shot concentrations ranging within the upper six inches of soil. Surficial clay pigeon debris is observed throughout the Firing Range Area.

- **Cargill's Levee** – The Cargill levee area includes approximately 1.2 acres of land and divides the Cargill salt pond and SFPUC's property. Lead shot and lead impacted soils are observed in two discrete layers within the levee. Lead impact within the upper four feet of Cargill's levee is confined to a depth of approximately one to two feet bgs with maximum concentration of 22,000 mg/kg. A second layer, located approximately between five and seven feet bgs, is included as part of the Salt Pond Area.
 - **Clay Pigeon Stockpile Area** – The clay pigeon stockpile area is a relatively flat, low-lying area of approximately 2.2 acres located west and adjacent to the firing range area. Maximum concentrations of PAH compounds associated with the stockpiled clay pigeon debris have been identified in surface soil at the following concentrations (RCRA Universal Treatment Standards in mg/kg given in parentheses): fluoranthene at 270 mg/kg (3.4), pyrene at 370 mg/kg (8.2), benzo(a)anthracene at 270 mg/kg (3.4), chrysene at 270 mg/kg (3.4), benzo(b)fluoranthene at 230 mg/kg (6.8), benzo(k)fluoranthene at 140 mg/kg (6.8), benzo(a)pyrene at 350 mg/kg (3.4), fluorene at 46 mg/kg (3.4), phenanthrene at 73 mg/kg (5.6), anthracene at 22 mg/kg (3.4), benzo(g,h,i)perylene at 170 mg/kg (1.8), and indeno(1,2,3-cd)pyrene at 220 mg/kg (3.4). PAH contamination in the Clay Pigeon Area is limited to the upper two feet of soil.
 - **Cargill's Salt Pond** – The Cargill salt pond area consists of approximately 13.2 acres within the salt pond and all sediment/soil within the levee at depths between five and seven feet bgs. Lead impacted sediments within the salt pond vary to approximately one-foot bgs at maximum concentrations of 6,405 mg/kg. Lead impact at depth within the levee (at a depth exceeding 4 feet bgs) is confined within a horizon approximately five to seven feet bgs with maximum concentrations of 1,200 mg/kg. PAH contamination may be present within the southern most portion of the salt pond (close proximity to the earthen dike).
 - **Seasonal Wetlands** – Maximum concentrations of lead in sediment is approximately 20,000 mg/kg and limited to a depth of about six inches bgs. PAH contamination of sediment within the seasonal wetland is assumed to be insignificant due to the lack of clay pigeon debris.
 - **Tidal Slough** – Lead and PAH contamination within the tidal slough/wetland has not been evaluated.
8. **Adjacent Sites:** Lead pellets and residual clay pigeon debris from shooting activities were deposited in the southern most portion of the adjacent salt pond and on/within the levee that bounds the salt pond, both owned by Cargill. The portions of Cargill's property affected by lead pellet and PAH contamination is part of the site addressed by this Order.

9. **Interim Remedial Measures:** In Fall 2000, approximately 3000 cubic yards of stockpiled clay pigeon debris and lead contaminated soil were removed from the Clay Pigeon area. The material was disposed of at a regulated offsite disposal facility.
10. **Remedial Alternatives Analysis:** A Remedial Alternatives Analysis (RAA) has been developed for the COI identified during the Remedial Investigation. The RAA considered two sets of potential cleanup actions, based on applicability of remedial technology. The first set of alternatives considered included those areas of the site identified as "upland" (i.e., firing range, clay pigeon area, seasonal pond, and the levee). The five potential actions identified by the RAA for upland and levee areas of the site include: (1) No Action; (2) Onsite Containment; (3) Onsite Containment with Treatment; (4) Removal, Treatment, and Disposal as non-RCRA Waste; and (5) Removal and Offsite Disposal as RCRA Waste. Concurrent with development of remedial alternatives for the "upland" areas, treatability studies were performed to determine the feasibility of lead recovery, lead stabilization, and PAH treatment. Regional Board staff concurs with remedial actions 4 and 5 listed above for the "uplands" area.

A second set of alternatives was developed for the Cargill salt pond. The six potential actions identified by the RAA for the Cargill salt pond include: (1) No Action; (2) Interim Geotextile Cover; (3) Removal and Onsite Containment; (4) Removal, Treatment and Onsite Containment; (5) Removal, Treatment and Offsite Disposal as non-RCRA waste; and (6) Removal and Offsite Disposal as RCRA Waste. Concurrent with the development of remedial alternatives for the Cargill salt pond, a dredging alternatives analysis was performed to evaluate various removal options. Regional Board staff concurs with remedial actions 5 and 6 listed above for the Cargill salt pond.

11. **Cleanup Plan:** SFPUC is required by Tasks 3 & 4 to prepare remediation action plans (RAPs) for the following geological/ecological areas: the firing range area, the clay pigeon area, the Cargill salt pond, seasonal wetlands, and Cargill's levee. Remediation in the firing range area, clay pigeon area, Cargill's salt pond and levee, and the seasonal wetlands shall consist of "source removal". Characterization and potential cleanup of the tidal slough will be addressed in the work plan(s) required by Task 5. Source removal of impacted soil/sediment is hereby defined as removal of all visible clay pigeon debris, removal of lead shot to 10 shots per cubic foot, and cleanup of residual lead and PAHs to cleanup levels approved in the site's RAP. Confirmation samples for residual lead shall be sieved to remove lead shot prior to laboratory analysis.

Following source removal activities, confirmation sampling shall be conducted using an approved sampling grid. Lead shot, PAHs, and residual lead shall be sampled using either a short turn around time or a mobile lab to avoid remobilization of field equipment and personnel. Results shall be submitted to the RWQCB for review and determination where/if additional excavation(s) are

necessary. Cleanup levels for residual lead and PAHs shall be proposed and approved by Board staff in the site's RAPs described in Tasks 3 and 4.

In addition to removal of impacted soil/sediment, a sufficient number of permanent groundwater-monitoring wells shall be installed in the upper most water-bearing zone. Groundwater shall be monitored pursuant to the attached Self-Monitoring Plan.

12. **Basis for Cleanup Standards:**

a. **General:** State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharger and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. This order and its requirements are consistent with Resolution No. 68-16.

b. **Beneficial Uses:** The Board adopted and revised a Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in Title 23, California Code of Regulations, Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

c. **Basin Plan:**

1. The Basin Plan designates the following potential beneficial uses of groundwater underlying and adjacent to the site:

- Municipal and domestic water supply;
- Industrial process water supply;
- Industrial service supply;
- Agricultural water supply; and,
- Freshwater replenishment to surface waters.

At present there is no known use of groundwater underlying the site for the above purposes.

2. The existing and potential beneficial uses of the San Francisco Bay South include:

- Ocean, commercial, and sport fishing;
- Estuarine habitat;
- Industrial service supply;
- Fish migration;
- Navigation;
- Preservation of rare and endangered species;
- Water contact recreation;
- Noncontact water recreation;
- Shellfish harvesting;
- Fish spawning and,
- Wildlife habitat.

3. The existing and potential beneficial uses of wetlands at and adjacent to the site include:

- Estuarine habitat;
- Fish migration;
- Preservation of rare and endangered species;
- Ocean, commercial, and sport fishing;
- Water contact recreation;
- Noncontact water recreation;
- Fish spawning; and,
- Wildlife habitat.

4. The existing and potential beneficial uses of the salt pond include:

- Preservation of rare and endangered species;
- Noncontact water recreation; and,
- Wildlife habitat.

- d. **Basis for Soil Cleanup Standards:** PAH and lead contaminated soil and sediment shall be remediated pursuant to the Remedial Action Plan described in Finding No. 11 above.
13. **Future Changes to Cleanup Standards:** The goal of this remedial action is to restore the beneficial uses of groundwater and surface water underlying and adjacent to the site. Results from other sites suggest that full restoration of beneficial uses to groundwater/surface water as a result of active remediation at this site may not be possible. If full restoration of beneficial uses is not

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- technologically nor economically achievable within a reasonable period of time, then the discharger may request modification to the cleanup standards or establishment of a containment zone, a limited groundwater pollution zone where water quality objectives are exceeded. Conversely, if new technical information indicates that cleanup standards can be surpassed, the Board may decide that further cleanup actions should be taken.
14. **Reuse or Disposal of Extracted Groundwater:** Board Resolution No. 88-160 allows dischargers of extracted, treated groundwater from the site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharger to the sanitary sewer is technically and economically feasible.
 15. **Basis for 13304 Order:** The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.
 16. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
 17. **Other Regulatory Compliance:** Actions taken by the discharger shall be in compliance with all applicable federal, state, and local laws and regulations.
 18. **CEQA:** The Regional Board finds that this site is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321, Title 14 of the California Code of Regulation.
 19. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
 20. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. **PROHIBITIONS**

- a. The discharge of wastes or hazardous substances in a manner, which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
- b. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
- c. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substance are prohibited.

B. **REMEDIAL ACTION PLAN AND CLEANUP STANDARDS**

1. **Implement Remedial Action Plan:** The discharger shall implement the cleanup plan, as required by Task 3 and described in Finding No. 11.
2. **Soil Cleanup Standards:** PAH and lead contaminated soil and sediment shall be remediated as described in Finding No. 11.

C. **TASKS**

1. **Interim Status Report – Clay Pigeon Removal Action**

REPORT DUE DATE: August 30, 2001

Submit a technical report, acceptable to the Executive Officer, documenting Fall 2000 source removal of debris within the Clay Pigeon area of the site.

2. **Public Participation Plan**

REPORT DUE DATE: August 30, 2001

Submit a technical report, acceptable to the Executive Officer, outlining provisions of a Public Participation Plan for the site cleanup, consistent with requirements set forth in Section 25356.1 et. Seq. of the California Health and Safety Code.

3. **Remedial Action Workplan & Time Schedule – Firing Range Area, Seasonal Ponds, Clay Pigeon Stockpiles, and Surficial Levee Contamination**

REPORT DUE DATE: December 31, 2001

Submit a technical report and a time schedule, acceptable to the Executive Officer, describing cleanup procedures, technologies, and goals for the firing range area, seasonal ponds, clay pigeon stockpiles, and surficial contamination on Cargill's levee. The RAP shall include, but not be limited to: proposed cleanup levels and criteria identified in Finding 11 for both upland and wetland areas; a detailed description of proposed confirmation sampling; and, documentation that other regulatory agency requirements have been identified and are being met.

4. **Remedial Action Workplan & Time Schedule – Cargill's Salt Pond and Deeper Levee Contamination**

REPORT DUE: June 30, 2002

Submit a technical report and a time schedule, acceptable to the Executive Officer, describing cleanup procedures, technologies, and goals for Cargill's salt pond and the deeper portions of the levee. The RAP shall include, but not be limited to: proposed cleanup levels and criteria identified in Finding 11 for both upland and wetland areas, where relevant; a detailed description of proposed confirmation sampling; and, documentation that other regulatory agency requirements have been identified and are being met.

5. **Groundwater Monitoring and Slough Sampling Workplan**

REPORT DUE DATE: December 31, 2001

Submit a technical report, acceptable to the Executive Officer, describing the results of preliminary geoprobe groundwater sampling for the site and present a workplan for:

- Installation of groundwater-monitoring wells at the site; and,
- Sampling of the tidal slough area east of the firing range area.

For sampling of the tidal slough, the report shall include sample locations, methodology, depths, and proposed analyses and analytical protocols. If lead and/or PAH impacts are identified within the tidal slough area an additional remedial action workplan and/ or an ecological risk assessment proposal and time schedule shall be submitted by **June 30, 2002**. Additional remedial actions necessary in the tidal slough area shall be completed no later than **October 15, 2003**.

For groundwater monitoring wells, the report shall include, but not be limited to a site map depicting proposed locations of monitoring wells, approximate depth, screen length, and a description of well construction. Placement of monitoring wells shall be such that site groundwater quality and flow is accurately characterized.

6. Final Cleanup Report – Uplands Area Cleanup

REPORT DUE DATE: December 30, 2002

Submit a technical report, acceptable to the Executive Officer, documenting completion of source removal activities within the firing range area, surficial contamination on Cargill's levee, clay pigeon stockpile area, and the seasonal wetlands. The technical report shall include confirmation-sampling results, as described in Finding 11.

7. Interim Status Report – Cargill Salt Pond & Tidal Slough Areas

REPORT DUE DATE: March 31, 2003

Submit an interim status report, acceptable to the Executive Officer, documenting conformance with time line objectives for remediation of the Cargill salt pond and if necessary the tidal slough area.

8. Final Site Cleanup Report – Cargill Salt Pond & Tidal Slough Areas

REPORT DUE DATE: July 31, 2004

Submit a technical report, acceptable to the Executive Officer, documenting source removal activities within Cargill's salt pond and necessary remediation for the tidal slough area. The report shall also include the following:

- A summary of the previous remedial actions taken;
- Documentation of conformance to the approved Remedial Action Workplan(s) (Task 3 and 4);
- Confirmation sampling results for Cargill's salt pond and the second phase of the levee remediation (5 to 7 feet bgs);
- If necessary, confirmation sampling results for the tidal slough;
- Summary of effectiveness in controlling contaminant migration and protecting human health and the environment;
- Comparison of anticipated versus actual cost of cleanup activities;
- Performance data (e.g. Lead and PAH mass removed, mass of Lead and PAHs removed per cubic yard excavated);
- Cost analysis data (e.g. cost per pound of contaminant removed); and,

- Summary of additional investigations (including results) and significant modifications to remediation systems.

All remedial actions described in Finding 11 and Tasks 3 and 4 shall be completed prior to October 15, 2003.

PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13509(m)
2. **Good O&M:** The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a Stated Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods in that program shall be consistent with the disputed resolution procedures for that program.
4. **Access to Site and Records:** In accordance with California Water Code Section 13267 (c), the discharger shall permit the Board or its authorized representative:
 - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the requirements of this Order.
 - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.

5. **Self-Monitoring Program:** The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
6. **Contractor/Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.
7. **Lab Qualifications:** All samples shall be analyzed by California State-certified laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).
8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:
 - a. City of Menlo Park
 - b. San Mateo County Health Services Agency, Greg Smith

The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00am to 5:00pm).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimate quantity involved, duration of incident, cause of release, estimated sized of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

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11. **Rescission of Existing Order:** This order supercedes and rescinds Order No. 94-031.
12. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary.

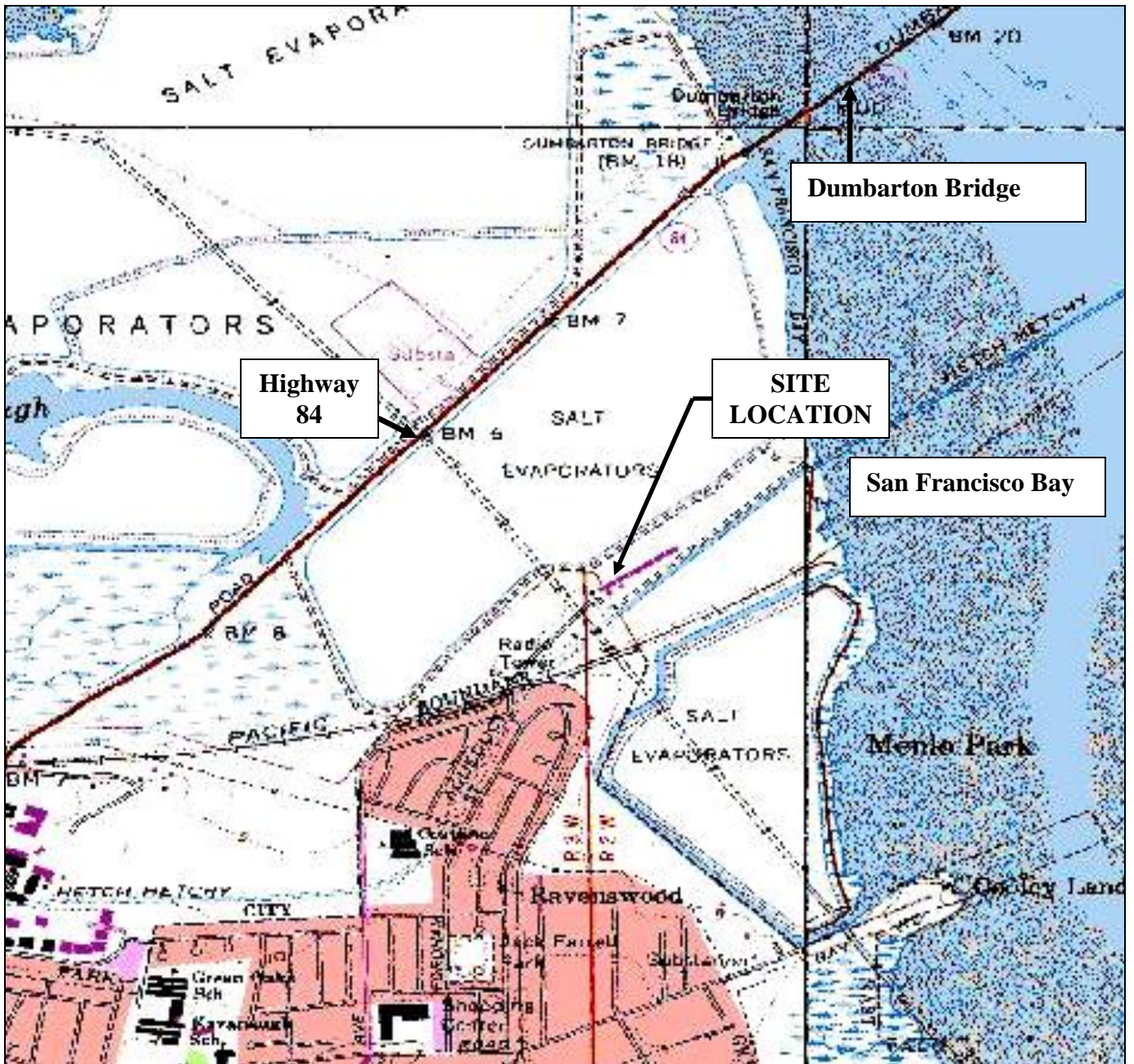
I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 15, 2001.

Loretta K. Barsamian
Executive Officer

FAILURE TO COMPLY WITH THE REQUIRMENTS OF THIS ORDER MAY
SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED
TO: IMPOSTION OF ADMINISTRATIVE CIVIL LIBAILITY UNDER WATER
CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY
GENREAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Figures: Figure 1 – Site Location Map
 Figure 2 – Site Plan

Attachment: Self-Monitoring Program



Source: USGS Topographic Maps: Newark, Mountain View, Palo Alto and Redwood Point Quadrangles

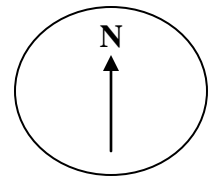
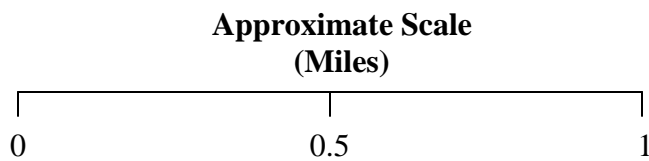


Figure 1 – Site Location Map
Peninsula Sportsmen's Club Former Skeet Firing Range

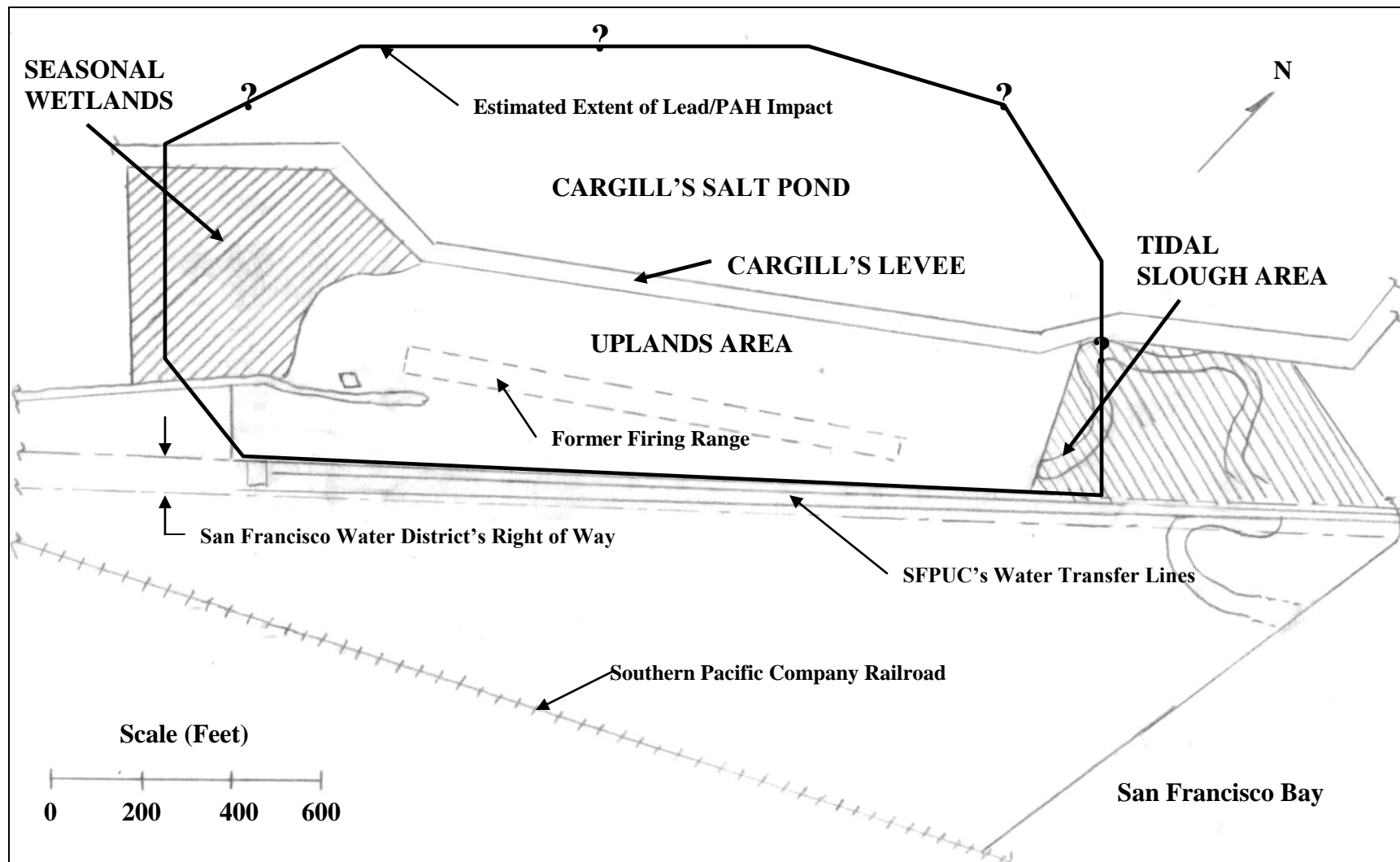


Figure 2 – Site Plan
Peninsula Sportsmen's Club Former Skeet Firing Range

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SELF-MONITORING PROGRAM

For:

**PENINSULA SPORTSMEN'S CLUB, INC., AND
THE CITY AND COUNTY OF SAN FRANCISCO'S
FORMER SKEET FIRING RANGE**

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SAN MATEO COUNTY**

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

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THE CITY AND COUNTY OF SAN FRANCISCO'S
FORMER SKEET FIRING RANGE

for the property located in

MENLO PARK
SAN MATEO COUNTY

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program (SMP) pursuant to Water Code Sections 13267 and 13304. This SMP is intended to document compliance with Board Order No. 01-095 (site cleanup requirements).
2. **Monitoring:** Pursuant to Task 5 of Board Order No. 01-095 the discharger shall install a sufficient number of permanent monitoring wells no later than February 28, 2002. Quarterly reporting of water analysis shall begin April 30, 2002. The discharger shall measure groundwater elevations quarterly and collect and analyze representative samples of groundwater from all groundwater monitoring wells according to the following table:

Constituent	Sampling Frequency	Method
pH	Quarterly	Field
Conductivity	Quarterly	Field
Groundwater Elevations	Quarterly	Field
Total Dissolved Solids	Quarterly	EPA 160.1
Sulfide	Quarterly	EPA 376.1
Sulfate	Quarterly	EPA 300.0
Lead (Total and Dissolved)	Quarterly	EPA 239.2
Polynuclear-Aromatic Hydrocarbons	Quarterly	EPA 8310

The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The discharger shall submit quarterly monitoring reports, acceptable to the Executive Officer, to the Board no later than 30 days following the end of the quarter (e.g. report for the first quarter of the year due April 30). Quarterly monitoring reports shall be due no later

than **January 30th**, **April 30th**, **July 30th**, and **October 30th** of each year. The first quarterly monitoring report shall be due on **April 30, 2002** (1st Quarter 2002). The reports shall include:

- a. **Transmittal Letter:** The transmittal letter shall discuss any violations to the Order or SMP during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater map shall be prepared for each monitored water-bearing zone. Historical data shall also be tabulated within each of the quarterly monitoring reports.
- c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map shall be prepared for key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be tabulated within each of the quarterly monitoring reports. The reports shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increased. In the event that a constituent is detected with groundwater, an approved statistical analysis shall be used to document increasing or decreasing trends. Supporting graphs and tables shall be included in the fourth quarter monitoring report (due January 30th). Supporting data, such as lab data sheets shall be submitted in electronic format (on a 3.5 floppy disk or CD-ROM).
- d. **Groundwater Extraction:** If applicable, the report shall include groundwater results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year. Groundwater extraction is not expected to occur at the site.
- e. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

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4. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.
5. **Other Reports:** The discharger shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
6. **Record Keeping:** The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on August 15, 2001

Loretta K. Barsamian
Executive Officer