

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. R2-2003-0054

RESCISSION OF WASTE DISCHARGE REQUIREMENTS ORDER NO. 90-028 FOR:

**RICHMOND REDEVELOPMENT AGENCY
STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION**

**I-580 FREEWAY EMBANKMENT CLASS II WASTE MANAGEMENT UNIT,
RICHMOND, CONTRA COSTA COUNTY**

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

SITE DESCRIPTION, LOCATION, AND HISTORY

1. The I-580 Freeway Embankment Class II Waste Management Unit (herein referred to as the WMU) is a two-acre freeway embankment located along I-580 at the southwest corner of Standard Avenue and Castro Street in Richmond, Contra Costa County (Figures 1 and 2). The site is surrounded by a mixture of residential and light and heavy industrial use.
2. In 1989, contractors for the Richmond Redevelopment Agency placed approximately 20,000 cubic yards of petroleum hydrocarbon-impacted soil at the site as part of the construction of the I-580 freeway embankment. The soil placed in the WMU was imported from three areas within the City of Richmond's Marina Bay Project where it was stockpiled on the West Shore of Marina Bay. At that time, characterization samples indicated the soil contained total petroleum hydrocarbons (TPH) up to 1,400 (milligrams per kilogram (mg/kg)), and total oil and grease (TOG) up to 2,500 mg/kg. Further characterization indicated that benzene, toluene, ethylbenzene, and xylenes (BTEX), poly-chlorinated biphenyls (PCBs), pesticides, metals, and chlorinated volatile organic compounds (CVOCs) were not a concern.
3. On February 21st, 1990, the Board adopted Order No. 90-028 for the WMU. The purpose of the Order was to establish waste discharge requirements (WDRs) for the placement of the petroleum-impacted soil. Order No. 90-028 established construction specifications for the WMU, including a leachate collection and recovery system (LCRS). The Order also established a discharge monitoring program (DMP) to evaluate threats and impacts to groundwater quality from the WMU.

PURPOSE OF ORDER

4. The primary objectives of this Order are to (1) acknowledge that the I-580 WMU no longer poses a significant threat to water quality, based on historic monitoring results, and (2) to rescind Board Order No. 90-028 and its related monitoring requirements.

DISCHARGERS AND SITE OWNERSHIP

5. The State of California, Department of Transportation (Caltrans) owns the property where the WMU resides. The Richmond Redevelopment Agency operates and maintains the WMU and owns the petroleum hydrocarbon-impacted soil encapsulated within the WMU. The above parties/entities are collectively referred to as the Dischargers.

WMU DESIGN

6. The WMU was constructed in accordance with California Code of Regulations, Division 2, Title 27 (Title 27) design specifications. The petroleum-impacted soil placed in the WMU was encapsulated with compacted clay and a synthetic liner consisting of 60-mil thick High Density Polyethylene (HDPE). The WMU was also equipped with a leachate collection and recovery system (LCRS).

GEOLOGY AND HYDROGEOLOGY

7. The WMU is underlain by a sequence of unconsolidated sediments deposited on Franciscan assemblage bedrock. Bishop, et al (1973) mapped the site as alluvium, grading into Bay Mud deposits approximately 100 to 200 feet to the northeast. The alluvium in the area is derived mainly from an eroding bedrock ridge immediately to the southwest. Based on the location of the site at the base of the ridge, and its close proximity to the low-lying bay marshlands, the site is probably underlain by a mixture of both alluvium and bay mud. The bay mud and alluvium in the vicinity of the WMU form a sequence of alternating zones of low permeability stiff silty clays and higher permeability silty and clayey sands. Soils placed in the WMU consist predominantly of silty-clay.

BASIS FOR RESCISSION

8. Discharge monitoring was conducted quarterly and semi-annually for seven years from 1989 through 1996, when it was discontinued. Discharge monitoring points included five monitoring wells and a leachate collection sump (Figure 2). In 2001, Regional Board staff requested one round of additional confirmation monitoring in order to evaluate current threats to groundwater quality. In January 2002, the Richmond Redevelopment Agency conducted confirmation sampling of all monitoring wells and the LCRS sump. Table 1 summarizes the final petroleum hydrocarbon concentrations detected in groundwater and leachate during the confirmation sampling in January 2002.

Table 1 Confirmation Sampling Results from January 2002

Sample Location	TPH-g (mg/l)	TPH-d (mg/l)	TPH-k (mg/l)	TPH-mo (mg/l)	TRPH (mg/l)	TOG (mg/l)
MW-1	NA	NA	NA	NA	NA	NA
MW-2	NA	<0.05	<0.05	<0.5	NA	<1
MW-3	NA	0.1	<0.05	<0.5	NA	1.3
MW-4	NA	<0.05	<0.05	<0.5	NA	<1
MW-5	NA	0.05	<0.05	<0.5	NA	1.2
LCRS	NA	NA	NA	NA	NA	1.8

NA: Not Analyzed

9. Groundwater within a one-mile radius of the site is reportedly not used for drinking water because of the highly saline quality of the water, due to its proximity to San Francisco Bay (Figure 1).
10. Over seven years of monitoring data indicate that no significant discharge has occurred from the WMU and that the WMU no longer poses a significant threat to water quality.
11. All provisions of WDR Order No. 90-028 have been satisfied.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

12. This action is categorically exempt from provisions of the California Environmental Quality Act pursuant to Section 15301, Title 14 of the California Code of Regulations.

NOTIFICATION AND PUBLIC MEETING

13. The Regional Board, in a public meeting, heard and considered all comments pertaining to the proposed rescission of waste discharge requirements for the Site.

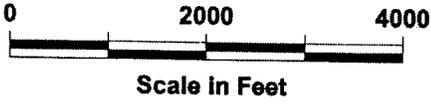
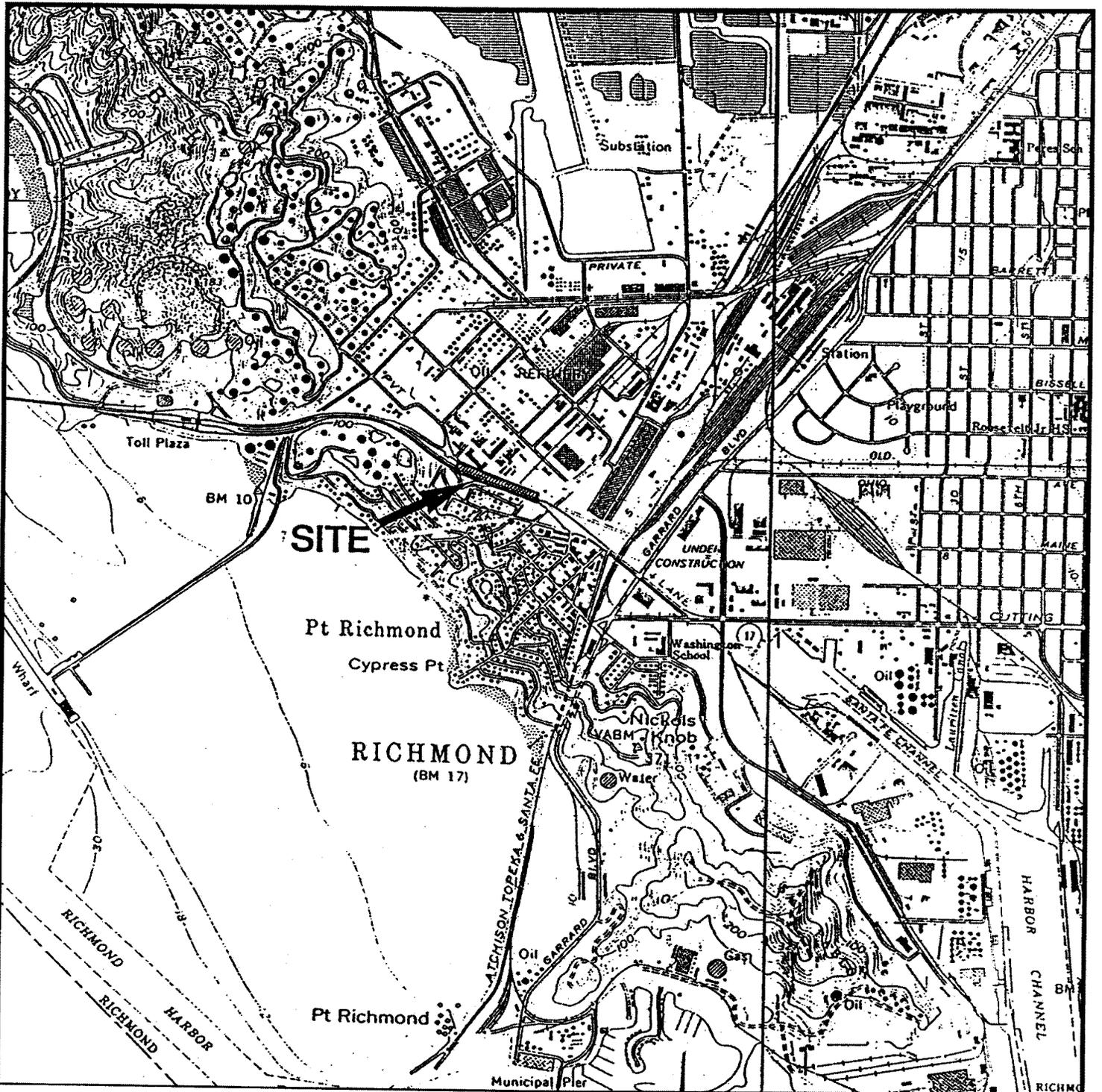
IT IS HEREBY ORDERED THAT: Board Order No. 90-028 is rescinded.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 18th, 2003.



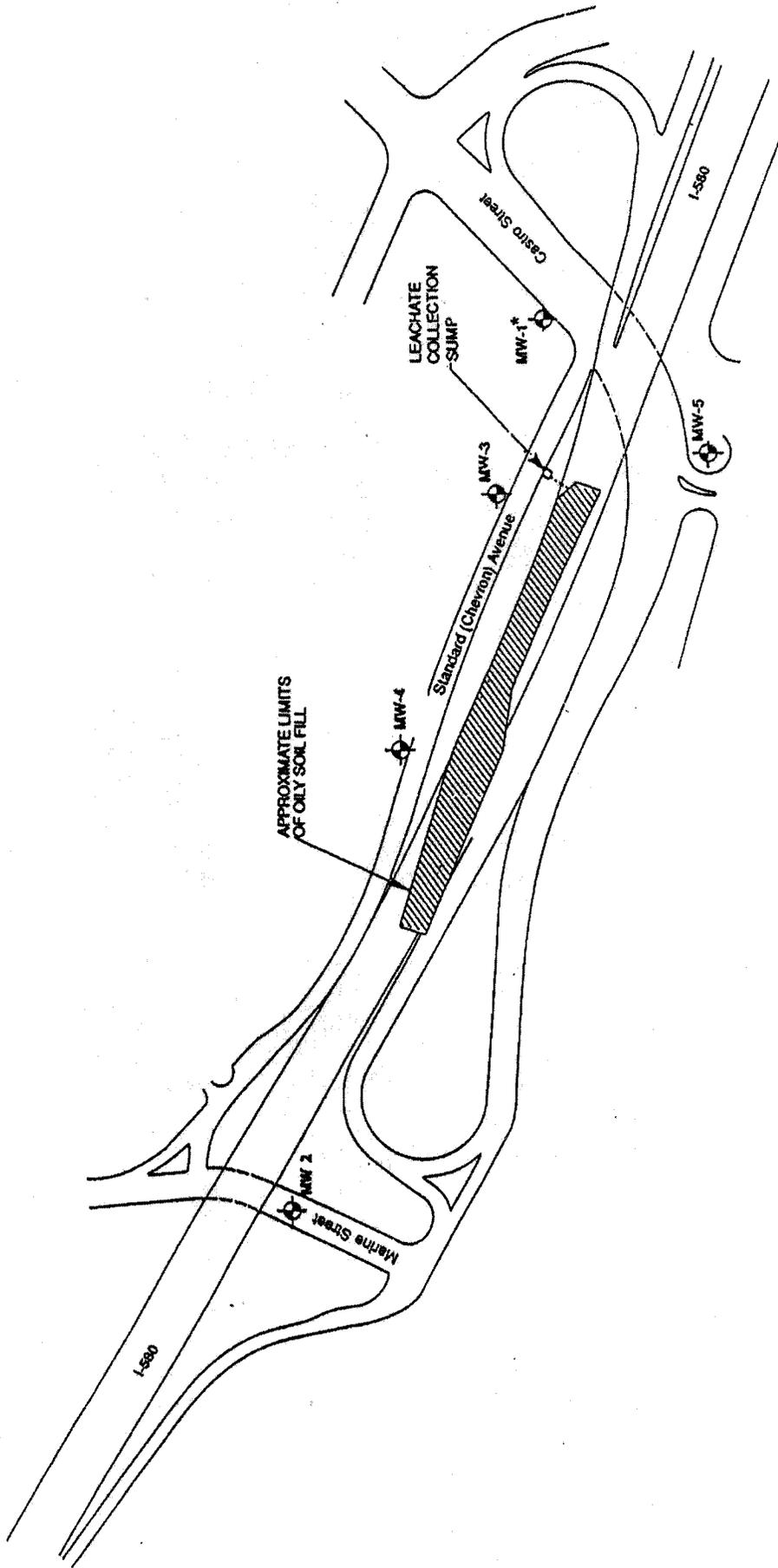
Loretta K. Barsamian
Executive Officer

Attachments: Figure 1 - Site Vicinity Map
Figure 2 - Site Location Map



Reference:
 Harding Lawson Associates
 Semiannual 1996 (January - June)
 Groundwater Monitoring Report I-580
 Freeway Embankment, Class II Disposal Site,
 Richmond, California
 dated June 10, 1996





EXPLANATION

MW-2  Existing Well

* MW-1 not located

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