CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 98-018

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

PUREX INDUSTRIES, INC.;
BARON-BLAKESLEE, INC., A DELAWARE CORPORATION;
ALLIEDSIGNAL, INC.; AND
W. HOWARD AND CATHERINE JONES

for the property located at

511 O'NEILL AVENUE
BELMONT
SAN MATEO COUNTY

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

1. **Site Location**: The site is located at 511 O'Neill Avenue in Belmont, San Mateo County. It is bounded by Ralston Avenue to the north, Harbor Boulevard to the south, Industrial Way to the east, and El Camino Real to the West (see site location map). The land use in the vicinity area includes residential housing to the west, and commercial and light industrial developments to the north, east, and south.

2. **Site History**: Currier Company opened a business at the 511 O'Neill Avenue property in 1960. Baron-Blakeslee, Inc., a California Corporation, purchased the Currier Company and operated a solvent sales and recycling operation at the site. On June 30, 1970, Baron-Blakeslee, Inc. merged with Purex Corporation and became a division of Purex Corporation. Purex Corporation, through its Baron-Blakeslee Division, continued to operate the solvent recycling facility until 1972, when the facility was closed.

   In 1978 Purex Industries, Inc. was incorporated in Delaware and acquired all of the stock of Purex Corporation. In 1982, the assets and liabilities for the Baron-Blakeslee Division (of Purex Corporation) were transferred to Baron-Blakeslee, Inc., a Delaware Corporation (Baron-Blakeslee/Del). Baron-Blakeslee/Del then executed an agreement assuming all liabilities relating to the former Baron-Blakeslee Division. Purex Industries, Inc., which is

still in business, became the parent company of both Baron-Blakeslee/Del and Purex Corporation. Three years later, in 1985, Purex Industries, Inc. sold Baron-Blakeslee/Del to Allied Corporation, which later became AlliedSignal, Inc.

The site has been owned since 1978 by W. Howard and Catherine Jones, who operate a small wholesale battery business at that location.

In the late 1980s, volatile organic compounds (VOCs) were detected in groundwater beneath an adjacent site located at 500 Harbor Boulevard in Belmont. In 1990, groundwater samples collected near adjoining property boundary line contained about 28,823,000 ppb of TCE and 586,000 ppb of DCE. There were no known sources of VOCs at the 500 Harbor Boulevard site. Consequently, the 511 O'Neill Avenue site was a suspected VOC source due to its former solvent recycling business.

In March 1996, Purex Industries, Inc. conducted a preliminary soil and groundwater investigation at the site. Investigation results revealed VOCs in soil and elevated VOC concentrations in groundwater underneath the 511 O'Neill Avenue site.

3. **Named Dischargers**: Purex Industries, Inc. is named as a discharger because it is a successor of Purex Corporation , which operated a solvent recycling facility at the site. Purex Corporation released solvents that entered the soil and groundwater at the site. Baron-Blakeslee/Del is named as a discharger because it assumed some of the liability of Purex Corporation related to the site. AlliedSignal, Inc. is named as a discharger because it purchased Baron-Blakeslee/Del.

   W. Howard and Catherine Jones (the Jones') are named as dichargers because they are the current property owners, and have knowledge of the discharges of solvent and the ability to control those discharges. The Jones' did not actively discharge solvents at the site, or operate a business that discharged solvents, and the site is being remediated by other responsible parties. The Jones' are required to comply with this order only if the Board or Executive Officer find that the other named responsible parties fail to comply with the terms of the order.

   If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Board will consider adding that party's name to this order.

4. **Regulatory Status**: This site is currently not subject to Board order.

5. **Site Hydrogeology**: Preliminary subsurface investigations have been conducted at the site and its vicinity. Soil in the vicinity of the site consists primarily of silts and clays with interbedded lenses of sandy gravel or sandy clays to depths of 20 feet or more below

ground surface (bgs). Bedrock consisting of greenstone, conglomerate, greywacke, and chert was encountered at about 20 feet bgs.

Groundwater is generally encountered at the site at depths of approximately 10 feet bgs. The groundwater flow appears to be in the easterly direction. Additional investigation is needed to define the subsurface lithology, to identify any preferential groundwater flow paths, and to verify groundwater gradient and flow directions at and near the site.

Groundwater in this area is considered to be a potential drinking water source. Belmont Creek is located a couple thousand feet southeast of the site. The San Mateo Office of Environmental Health has also identified several backyard irrigation wells located within the area.

6. **Remedial Investigation**: In March 1996, Smith Environmental Technologies Corporation ("Smith"), on behalf of Purex Industries, Inc., collected soil and groundwater samples from four borings at the site. VOCs including acetone, cis-DCE, TCE and total xylenes were detected in two of the soil borings along the southeastern edge of the site. Soil samples contained total VOC concentrations over 10 mg/kg at depths about 10 to 15 feet bgs. Further soil investigation is needed to determine the source area at the site.

   Smith also collected grab groundwater samples from the four borings in March 1996. The Regional Board also retained split grab groundwater samples and analyzed them for VOCs. There was inconsistency between the two data sets; nonetheless, both sets revealed very high VOC concentrations in groundwater. The primary chemicals detected with high concentrations were TCE (up to 1,600,000 ppb), cis-1,2-DCE (up to 77,000 ppb), methylene chloride (up to 46,000 ppb), xylenes (up to 17,000 ppb), ethylbenzene (up to 10,000 ppb), Freon-113 (up to 7,800 ppb), vinyl chloride (up to 870 ppb), and TCA (up to 1,200 ppb). The presence of these high VOC concentrations in groundwater is indicative of a VOC source in the vicinity. The site has not been fully characterized, and the lateral and vertical extent of groundwater pollution needs to be defined.

   In September 1997, Purex Industries, Inc. and AlliedSignal, Inc. submitted a workplan for soil and groundwater investigation at the site and nearby properties. The Regional Board approved the workplan with modifications in October 1997. The workplan has not been implemented due to delays in obtaining access permits from the owners of the site and nearby properties.

7. **Interim Remedial Measures:** No interim remedial measures have been proposed or implemented at the site because adequate source investigation has not been completed. Given the type and magnitude of VOCs detected at the site, interim remedial measures are needed for the following reasons: (i) to reduce the threat to water quality, public health,

and the environment posed by the discharge of waste, and (ii) to provide a technical basis for selecting and designing final remedial measures.

8. **Adjacent Sites**: Several sites with confirmed soil and groundwater contamination have been identified within one-quarter mile radius of this site. Contaminants at these sites include petroleum hydrocarbons and chlorinated solvents. The petroleum hydrocarbons are most likely attributed to the individual sites. The source(s) of VOCs to groundwater has not been fully identified. However, the 511 O'Neill Ave. site is the most likely source for the VOCs detected in groundwater due to its past solvent recycling operations and the presence of high VOC concentrations in groundwater underneath the site. The extent of groundwater contamination has not been defined for most of these sites. These sites include:

500 Harbor Boulevard Site:- The 500 Harbor Blvd. site is located southeast and adjacent of the 511 O'Neill Avenue site. Mr. David Lake, owner of the property, performed environmental site assessment and several soil and groundwater investigations as part of an underground storage tank closure on the property. Several VOCs at exceptionally high concentrations were detected. The compounds include TCE (up to 28,823,000 ppb), DCE (up to 586,000 ppb), xylenes (up to 6,215,000 ppb), ethylbenzene (up to 2,583,000 ppb), toluene (up to 14,000 ppb), and total fuel hydrocarbons (up to 693,000 ppb). The total petroleum hydrocarbons were attributed to the leaking underground fuel storage tanks located at the 500 Harbor Blvd. site. However, there was no known source on the 500 Harbor site for the detected chlorinated solvents. Based on the analytical data, the solvents most likely come from an off-site source.

1309 Elmer Street:- This property is possibly cross-gradient to the 511 O'Neill site. Investigations at this property have shown the presence of elevated TCE concentrations (up to 9,800 ppb) in groundwater underneath the 1309 Elmer Street property. The extent of chlorinated VOCs is not determined; however, these VOCs may also originate from an off-site source(s).

1400 Elmer Street:- This property is cross-gradient to the 511 O'Neill site. A 1986 investigation of this property showed the presence of TCE (up to 450 ppb) in groundwater underneath the 1400 Elmer Street property. The extent of the chlorinated VOCs is not determined; however, these VOCs may also originate from an off-site source (s).

1515 Industrial Way Site:- This site was recently closed, but chlorinated VOCs were detected at elevated concentrations in groundwater underneath the northern portion of the site. The chlorinated VOCs detected underneath this area are most likely from an off-site source(s).

9. **Basin Plan**: The Board adopted a revised 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 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

The potential beneficial uses of groundwater underlying and adjacent to the site include:

a. Municipal and domestic water supply
b. Industrial process water supply
c. Industrial service water supply
d. Agricultural water supply
e. Freshwater replenishment to surface waters

The shallow groundwater from the site vicinity recharges Belmont Creek. The Creek is located at less than 1/4 miles southeast of the subject site. The existing and potential beneficial uses of the Belmont Creek include:

a. Groundwater recharge
b. Water contact and non-contact recreation
c. Wildlife habitat
d. Cold freshwater and warm freshwater habitat
e. Estuarine habitat

10. **Other Board Policies**: Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

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.

11. **State Water Board Policies**: State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge 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.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Preliminary Cleanup Goals**: The dischargers will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft cleanup plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals should be used for these purposes:

    a. Groundwater: Background must be considered, but in no case should applicable water quality objectives (e.g. maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, risk-based levels (e.g. drinking water equivalent levels), be exceeded.

    b. Soil: 1 mg/kg total VOCs, 10 mg/kg total semi-volatile organic compounds (SVOCs), and background concentrations of metals.

13. **Basis for 13304 Order**: The dischargers have 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.

14. **Cost Recovery**: Pursuant to California Water Code Section 13304, the dischargers are 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.

15. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

16. **Notification**: The Board has notified the dischargers 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. The dischargers do not necessarily admit all of these findings.

17. **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 Purex Industries, Inc., Baron-Blakeslee, Inc., and AlliedSignal, Inc. (and their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. 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.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. TASKS

1. COMPLETION OF SOURCE IDENTIFICATION

COMPLIANCE DATE: April 30, 1998

Submit a technical report acceptable to the Executive Officer documenting inventory of chemicals used on the site (by name and volume), including chemical storage areas, sumps underground tanks, utility lines, and related facilities. The technical report should identify confirmed and possible sources of pollution..

2. REMEDIAL INVESTIGATION WORKPLAN

COMPLIANCE DATE: June 1, 1998

Submit a workplan acceptable to the Executive Officer to define the vertical and lateral extent of soil and groundwater pollution. The workplan should specify investigation methods and a proposed time schedule. Work may be phased to allow the investigation to proceed efficiently.

3.a. **COMPLETION OF ON-SITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: October 1, 1998

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 2 workplan. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below typical cleanup standards for on-site soil and groundwater.

3.b. **COMPLETION OF OFF-SITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: April 1, 1999

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 2 workplan. The technical report should define the vertical and lateral extent of pollution at the off-site down to concentrations at or below typical cleanup standards for off-site groundwater.

4. **INTERIM REMEDIAL ACTION WORKPLAN**

COMPLIANCE DATE: October 1, 1998

Submit a workplan acceptable to the Executive Officer to evaluate interim remedial action alternatives and to recommend one or more alternatives for implementation. The workplan should specify a proposed time schedule. Work may be phased to allow the investigation to proceed efficiently. If groundwater extraction is selected as an interim remedial action, then one task will be the completion of an NPDES permit application for discharge of extracted, treated groundwater to waters of the State if such method of discharge is selected. The application must demonstrate that neither reclamation nor discharge to the sanitary sewer is technically or economically feasible.

5. **COMPLETION OF INTERIM REMEDIAL ACTIONS**

COMPLIANCE DATE: April 1, 1999

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 4 workplan. For ongoing actions, such as soil vapor extraction or groundwater extraction, the report should document start-up as opposed to completion.

6. **PROPOSED FINAL REMEDIAL ACTIONS AND CLEANUP STANDARDS**

COMPLIANCE DATE: April 1, 2000

Submit a technical report acceptable to the Executive Officer containing:

a. Results of the remedial investigation
b. Evaluation of the installed interim remedial actions
c. Feasibility study evaluating alternative final remedial actions
d. Risk assessment for current and post-cleanup exposures
e. Recommended final remedial actions and cleanup standards
f. Implementation tasks and time schedule

Item c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Items a through e should consider the preliminary cleanup goals for soil and groundwater identified in finding 12.

7. **Delayed Compliance**: If the dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. 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 13050(m).

2. **Good Operation and Maintenance (O&M)**: The dischargers 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 dischargers 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 State 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 dischargers over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the dischargers 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 dischargers.

5. **Self-Monitoring Program**: The dischargers 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 State-certified laboratories or 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 Belmont - Department of Public Works *(transmittal letter only)*
   b. County of San Mateo - Department of Health Services

   The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator**: The Jones' 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 dischargers shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

    A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size 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.

11. **Secondarily-Responsible Dischargers**: Within 60 days after being notified by the Executive Officer that other named dischargers have failed to comply with this order, the Jones' as property owners shall then be responsible for complying with this order. Deadlines for all remaining tasks shall be extended to begin 60 days after such notice.

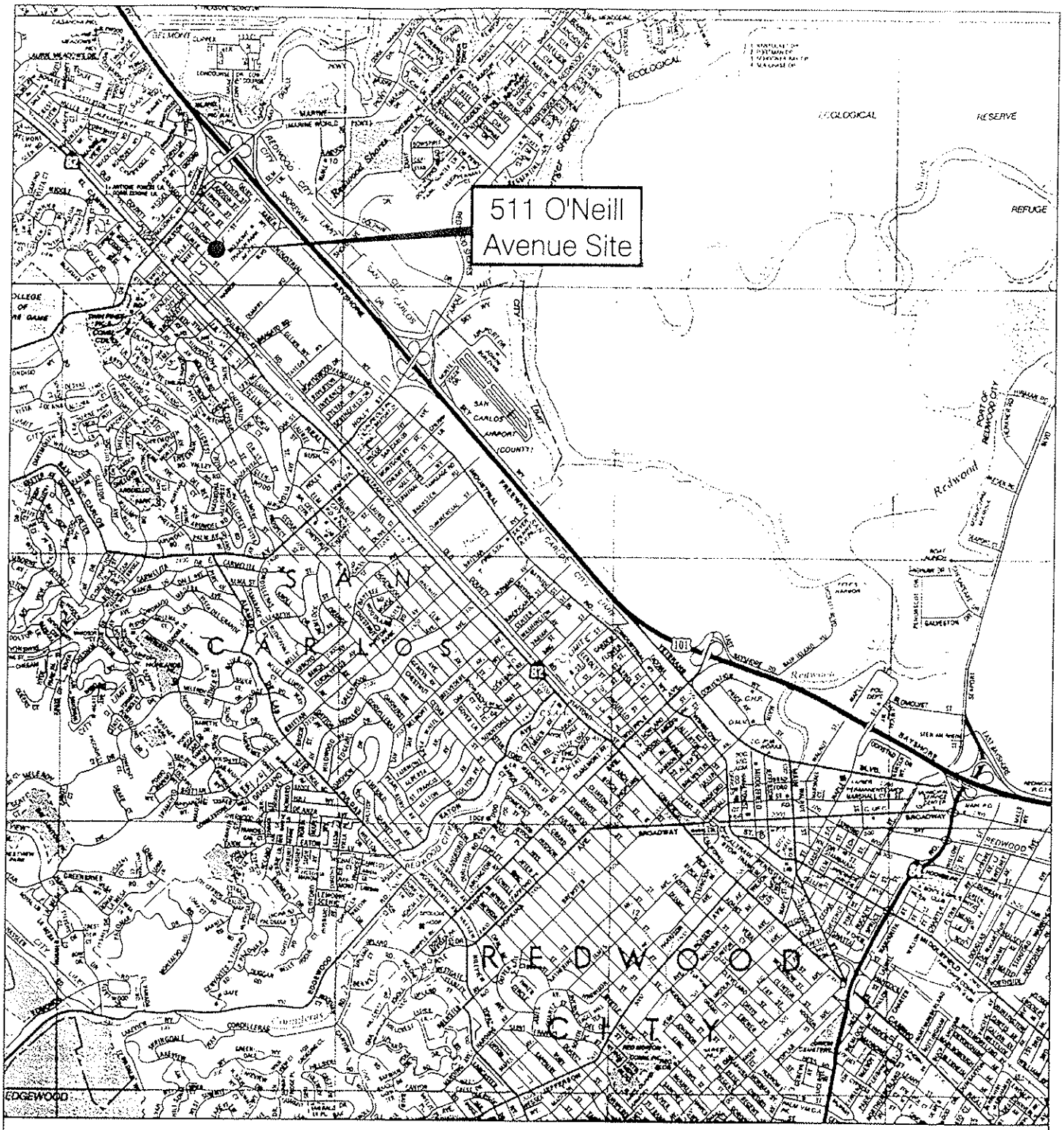
12. **Periodic SCR Review**: The Board will review this Order periodically and may revise it when necessary. The dischargers may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

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 March 18, 1998.

Loretta K. Barsamian
Executive Officer

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

Attachments: Site Map
Self-Monitoring Program



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0 3000 6000

(Approximate Scale in Feet)

Erler & Kalinowski, Inc.

Vicinity Map

511 O'Neill Avenue Site
Belmont, CA
September 1997

Notes:

1. All locations are approximate.

authorized representative, and shall include a statement by the official(s), 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 elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more 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 included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

d. Groundwater Extraction: If applicable, the report shall include groundwater extraction 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.

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.

4. **Violation Reports**: If the dischargers violate requirements in the Site Cleanup Requirements, then the dischargers shall notify the Board office by telephone as soon as practicable once the dischargers have knowledge of the violation. Board staff may, depending on violation severity, require the dischargers to submit a separate technical report on the violation within five working days of telephone notification.

5. **Other Reports**: The dischargers 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 dischargers or their 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 dischargers. 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 March 18, 1998.

Loretta K. Barsamian
Executive Officer