

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. R2-2003-0011

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

D&H MANUFACTURING COMPANY, DONNA WILLS, AND RICHARD WILLS

for the property located at

2301 CALLE DE LUNA  
SANTA CLARA  
SANTA CLARA COUNTY

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

1. **Site Location:** The site is located at 2301 Calle de Luna near the intersection of Calle de Lune and Calle del Sol in the City of Santa Clara (Figure 1). The Guadalupe River is about ¼ mile to the east and San Francisco Bay is about 5 miles to the Northwest. The site is located in an area with commercial and light industrial use. There is residential use about ¼ mile to the south.
2. **Site History:** There is an 8000 square-foot single-story building on the property with a chemical storage area at the rear of the building. The building was constructed in 1984 and it is surrounded by an asphalt parking lot. Richard and Donna Wills currently own the building and property. D&H Manufacturing Company has manufactured precision metal parts for the semiconductor industry at the facility since about 1984. A sump was installed in the rear of the building in about 1987 to contain fluids draining from the metal chip bins and prevent the liquid from backing up and pooling on the floor of the storage area. The sump consists of a corrugated steel pipe with a metal plate welded to the bottom at approximately three feet below ground surface. Soil and groundwater contamination in the area of the sump was reported to the Board in May of 2001.
3. **Named Dischargers:** D&H Manufacturing Company is named as a discharger because of substantial evidence that it discharged pollutants to soil and groundwater at the site, including its use of chlorinated solvents in manufacturing operations, the presence of these same pollutants in soil in the immediate vicinity of the sump, and the presence of these same pollutants in the soil and groundwater at the sump area.

Donna and Richard Wills are named as dischargers because they currently own the property and they owned it during or after the time of the activity that resulted in the discharge, have knowledge of the discharge or the activities that caused the discharge, and have the legal ability to prevent the discharge.

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 those parties' names to this order.

4. **Regulatory Status:** This site is currently not subject to any Board order.
5. **Site Hydrogeology:** The site is underlain by interbedded clay and sand units. Approximately 1-4 feet of clay (dark brown to black and stiff) blanket the site. Tan to gray mottled dense clayey sand to stiff sandy clay layers are present to 20 feet below ground surface (bgs). Between 20 and 23 feet bgs, a layer of 1 to 3 feet of saturated sand and silty sand is present. Clay underlies the sand layers to the maximum depth explored, about 25 feet bgs.
6. **Remedial Investigation:** Sampling performed in 2001 found high concentrations of Volatile Organic Compounds (VOCs) in the soil and groundwater near the sump. Tetrachloroethylene (PCE) was the VOC with the highest concentrations, although 1,1,1-trichloroethane (TCA) and methylene chloride were also discovered in significant concentrations. The highest concentration of PCE was 3,900,000 micrograms per kilogram (ug/kg) in the soil and 71,000 micrograms per liter (ug/l) in the groundwater. The extent of the soil contamination has been determined. Four pairs of groundwater monitoring wells have recently been installed at the site, but wells have not been sampled yet. Initial sampling of these new wells will determine if the extent of the groundwater contamination has been defined, or whether additional investigation is needed.
7. **Interim Remedial Measures:** Interim remedial measures need to be implemented at this site to reduce the threat to water quality, public health, and the environment posed by the discharge of waste and to provide a technical basis for selecting and designing final remedial measures. The discharger has proposed interim remedial measures such as excavation of contaminated soils and the application of hydrogen releasing compounds to the groundwater in the excavation pit.
8. **Adjacent Sites:** There are no contaminated sites in the immediate vicinity.
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

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

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. Given the Board's past experience with groundwater pollution cases of this type, it is unlikely that background levels of water quality can be restored. This initial conclusion will be verified when a cleanup plan is prepared. This order and its requirements are consistent with Resolution No. 68-16.

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 discharger 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:** 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).
  - b. **Soil:** Applicable screening levels as provided in the Regional Board's draft Risk Based Screening Levels (RBSLs), December 2001, or its equivalent. For purposes of this subsection, the discharger should assume that groundwater is a potential source of drinking water and that leaching of contaminants from soil to groundwater is a concern.
13. **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.
  14. **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.
  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 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.
  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 the discharger (or its 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. REMEDIAL INVESTIGATION WORKPLAN**

**COMPLIANCE DATE:** February 12, 2003

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

### **2. COMPLETION OF REMEDIAL INVESTIGATION**

**COMPLIANCE DATE:** June 1, 2003

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 1 workplan. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below typical cleanup standards for soil and groundwater.

### **3. COMPLETION OF INTERIM REMEDIAL ACTIONS**

**COMPLIANCE DATE:** August 1, 2003

Submit a technical report acceptable to the Executive Officer documenting completion of the tasks identified in the June 12, 2001 workplan, by Treadwell & Rollo. These actions include the excavation, treatment, and disposal of the

contaminated soil in the source area and the application of hydrogen releasing compounds into the excavation pit. The concentrations of VOCs on the bottom and sidewalls of the pit should be reported.

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

COMPLIANCE DATE: August 1, 2003

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").

Item e should consider the preliminary cleanup goals for soil and groundwater identified in finding 12 and should address the attainability of background levels of water quality (see finding 11).

5. **Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger 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 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 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 discharger 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 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 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 Santa Clara
  - b. County of Santa Clara
  - c. Santa Clara Valley Water District

The Executive Officer may modify this distribution list as needed.

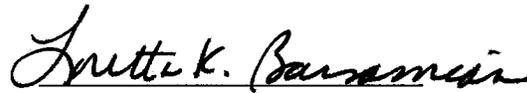
9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters 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, 8:00 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. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The discharger 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 January 22, 2003.

  
Loretta K. Barsamian  
Executive Officer

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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  
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Attachments: Site Map  
Self-Monitoring Program

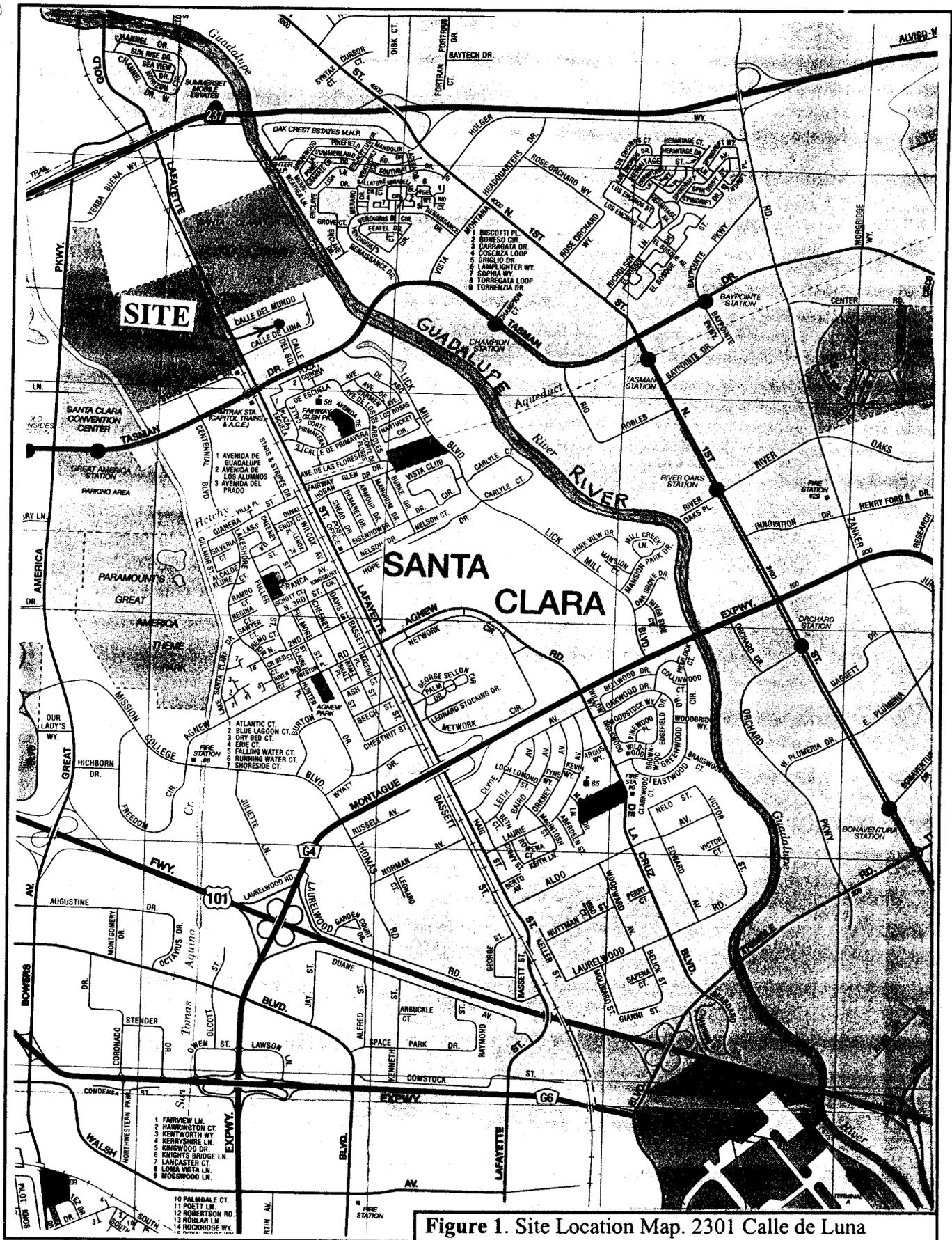


Figure 1. Site Location Map. 2301 Calle de Luna

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

D&H MANUFACTURING COMPANY, DONNA WILLS, AND RICHARD WILLS

for the property located at

2301 CALLE DE LUNA  
SANTA CLARA  
SANTA CLARA COUNTY

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. R2-2003-0011 (site cleanup requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater quarterly for VOCs (Method 8240 or equivalent) and natural attenuation parameters (dissolved oxygen, oxidation/reduction potential, pH, temperature, ferrous iron, dissolved iron, manganese, nitrate, sulfate, sulfide, chloride, alkalinity, organic carbon, metabolic acids, carbon dioxide, methane, ethane, and ethene). 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 to the Board no later than 30 days following the end of the quarter (e.g. report for first quarter of the year due May 1). The first quarterly monitoring report shall be due on May 1, 2003. The reports shall include:
  - a. **Transmittal Letter:** The transmittal letter shall discuss any violations 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 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.
  - 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 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 January 22, 2003.

  
Loretta K. Barsamian  
Executive Officer