

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

ORDER NO. R2-2002-0123

**ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS AND RESCISSION OF
ORDER NO. 00-052 FOR:**

W.S. ASSOCIATES

AND

NESTLE USA - BEVERAGE DIVISION, INC.

for the property located at

1964 WILLIAMS STREET
SAN LEANDRO
ALAMEDA COUNTY

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

1. **Site Location:** The 1964 Williams Street Site (hereinafter the Site) is located in the north end of a warehouse complex along Williams Street, near the intersection of Merced Street, and in a commercial/industrial area of San Leandro. A spur of the Union Pacific railroad passes along the west edge of the warehouse complex and separates the Site from adjacent property at 2040 Williams Street. The west side of the Site is equipped with three rollup doors that allow access to the railroad spur. Asphalt driving and parking areas surround the north and east sides of the Site. The San Francisco Bay is located approximately one mile to the west of the site.
2. **Site History:** D. H. Overmyer Co., Inc., owned the site from 1966 to January 1968. At this point, the property was sold to D. Devine who owned the property until 1984. D. H. Overmyer Co., Inc., acted as the master lessee of the site from January 1968 until May 1974. In August 1968, a portion of the property was leased to The Austin Company, who had been hired by Hills Brothers Coffee Company (predecessor to Nestle USA - Beverage Division, Inc., hereinafter Nestle) to develop a freeze drying system. From 1969 to 1971, a coffee freeze drying facility was operated at the site by Hills Brothers Coffee Company/Nestle. A third company, Cryo-Maid, Inc., operated a freeze drying

facility at the Site from 1972 to 1982. Trichloroethylene (TCE) was used and stored on site during each of these freeze drying operations.

W.S. Associates acquired the property in October 1984, and is the current owner of the Site. The freeze drying equipment was dismantled by C. J. Construction & Rigging Co. and removed from the Site in 1988. There is evidence that additional releases of TCE may have occurred during these operations. On August 2, 1988, an occupant at one of the warehouses adjacent to the Site reported to the Department of Toxic Substances Control (formerly a division of the Department of Health Services) and the fire department of the City of San Leandro that a liquid spill had occurred during tank dismantling operations on Site. The liquid, reported to have been Freon, was said to have entered the storm sewer system as a result of the spill. The site is currently occupied by Mark Container and used for storage purposes.

During a pre-purchase environmental investigation conducted in 1989, high levels of TCE were detected in soil and groundwater in and around the Site. Information obtained from depositions in litigation initiated by W.S. Associates regarding the Site indicated several potential sources of TCE releases to the environment. W. S. Associates initiated litigation against Nestle and other parties in 1990 in an effort to obtain commitments to address the identified environmental problems. W. S. Associates and Nestle ultimately settled with all but one of the previous owners and operators of the site (D. H. Overmyer Co., Inc.) and agreed to be named as Dischargers. This settlement is reflected in a 1995 District Court Order. The Board adopted Site Cleanup Requirements (SCR) for the site in 1995. A court ruling in 1998 allowed Nestle to pursue D. H. Overmyer Co., Inc., as a potentially responsible party. Litigation between W.S. Associates and Nestle is currently subject to a conditional dismissal while the parties cooperate to implement a remedy at the Site pursuant to an interim settlement agreement between them. On September 19, 2002, the court entered a settlement with D. H. Overmyer Co., Inc. under which W.S. Associates and Nestle agreed to be named as Dischargers in lieu of D. H. Overmyer Co., Inc.

3. **Named Dischargers:** W.S. Associates, being the present property owner, is named as a discharger. Nestle, a former tenant of the site, is named as a discharger because it used chemicals its freeze drying operations that are associated with those found in the soil and groundwater.

D. H. Overmyer Co., Inc., who owned or leased the Site from 1966 to 1974; The Austin Company, who operated a freeze drying facility at the Site in 1968; D. Devine, who owned the property from 1969 to until 1984; and Cryo-Maid, Inc., who operated a freeze drying facility at the Site from 1972 to 1982, have not been named as dischargers. The Board reserves the right to name these entities as dischargers in the future if necessary to facilitate cleanup of identified environmental impacts.

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:** The Site was subject to Order No. 00-052 (Site Cleanup Requirements), adopted June 21, 2000. The purpose of this order is to update the Site Cleanup Requirements to include tasks necessary to implement the final Remedial Action Plan (RAP), as described in the December 13, 2001, report *Remedial Action Plan* and August 9, 2002 addendum, and to rescind Order No. 00-052.
5. **Site Hydrogeology:** The site is underlain by three to eight feet of clayey and silty fill material. This is underlain by at least 80 feet of interlayered, unconsolidated alluvial fan deposits of clay and silt with discontinuous interlayers of coarser-grained sand and gravel. The top of shallow groundwater is located approximately 18 feet below the ground surface (bgs), with seasonal fluctuations of up to several feet. In the area of the 1964 Williams Street property, the stratigraphy can be grouped into three separate zones of fine-grained and coarse-grained units: an "A" zone extending from the top of groundwater to a depth of approximately 34 feet bgs; a "B" zone extending from 34 feet bgs to approximately 42 feet bgs; and a "C" zone extending from the base of the "B" zone to a depth of 81 feet bgs. Groundwater in each of the zones flows to the southwest at a gradient of approximately 0.004 ft/ft. In the area of Doolittle Drive, approximately 2,000 feet downgradient of 1964 Williams Street, the A and B zones appear to merge and separate water bearing units are not readily identifiable.
6. **Remedial Investigation:** Characterization of the vertical and lateral extent of impacted soil and groundwater is provided in a series of reports, including *Phase II Environmental Site Assessment* (September 15, 1989), *Soil and Groundwater Investigation* (June 4, 1990), *Remedial Investigation Report* (June 2, 1993), *Warehouse Interim Remedial Action Plan*, *Warehouse Characterization Report* (December 22, 1995), *Remedial Investigation Report and Fourth Quarter Monitoring Report* (June 27, 1997), *Remedial Action Plan* (December 13, 2001 and August 9, 2002 addendum) and subsequent quarterly groundwater monitoring reports. As discussed in these reports and summarized below, the approximate lateral and vertical extent of impacted soil and groundwater has been defined.

W.S. Associates first detected trichloroethylene (TCE) in soil and groundwater at the Site during a pre-sale environmental investigation conducted in 1989. Subsurface investigations at the Site initially confirmed the presence of TCE and related breakdown products (i.e. cis-1,2 dichloroethylene (cis 1,2 DCE), trans-1,2 dichloroethylene (trans-1,2 DCE) and vinyl chloride) in soil and groundwater beneath the warehouse and extending into areas west of the Site. Low levels of acetone, chloroform, Freon 11, 1,1 dichloroethane (1,1 DCA), 1,2 dichloroethane (1,2 DCA), 1,1 dichloroethylene (1,1 DCE), methylene chloride, tetrachloroethylene (PCE), 1,1,1-trichloroethane (1,1,1 TCA),

1,1,2-trichloroethane (1,1,2 TCA) and trichlorofluoromethane (TCFM, Freon 11) were also reported in groundwater in localized areas. An extensive area of soil under the warehouse was reported to be impacted with TCE. The highest concentrations of TCE in soil (up to 6,000 mg/kg) were reported for samples collected outside of the warehouse and within 50 feet of the rear rollup doors.

Concentrations of up to 50,000 ug/L TCE has been reported in samples collected from the A Zone aquifer downgradient of the Site (MW-15A). TCE has also been detected in the B Zone aquifer immediately downgradient of warehouse at concentrations up to 1,400 ug/L (MW-13B). A concentration of 42 ug/L TCE was reported for a groundwater sample collected from the C Zone aquifer immediately adjacent to the 1964 Williams St. warehouse (MW-10C) in 1999. TCE was not detected at levels above laboratory reporting limits in samples collected from the C Zone aquifer in the June 2002 monitoring event.

Groundwater data collected in 2002 indicate that the plume extends approximately 3,000 feet to the southwest of the Site and beyond the intersection of Doolittle Drive and Williams Street. As of June 2002, the leading edge of the plume was estimated to be approximately 2,000 feet from the margin of the San Francisco Bay. A residential area is located immediately south of the downgradient edge of the plume. The plume is not known to be migrating toward this area.

7. **Adjacent Sites:** The site is located within an industrial area of San Leandro. The area is known to contain several large plumes of impacted groundwater, of which TCE is one of the predominant pollutants. Previous studies by the dischargers have indicated that the TCE plume detected below the Site is not associated with other plumes in the area.

Shallow groundwater beneath 2075 Williams Street and 2101 Williams Street, located to the immediate south of the 1964 Williams Street site, is impacted with tetrachloroethylene (PCE). A release of PCE has been documented at the 2075 Williams Street property and is being overseen under a separate Order. The investigation at 2101 Williams Street is ongoing. Low levels of PCE were detected in samples of groundwater collected from MW-30A, near the southern most edge of the 1964 Williams Street TCE plume and immediately downgradient of the 2075 and 2101 Williams Street properties. The presence of PCE in these samples is interpreted to be related to releases in the upgradient areas and not related to releases associated with the 1964 Williams Street site.

8. **Interim Remedial Measures**

- a) **Soil:** Interim remedial measures for impacted soil were implemented at the Site in order to reduce the short-term threat to water quality, human health and the environment. Two-thirds of the concrete floor of the warehouse was removed in 1995 and 1996. Impacted soils were excavated and removed from beneath sub-floor sumps and in trenches where a soil vapor extraction conduit was installed. Polyethylene

vapor barriers were placed or sprayed over impacted soils and piping for the vapor extraction system prior to replacement of the concrete floor.

The vapor extraction system was put into operation in October 1996. Use of the system was discontinued in June 1999, after the mass of TCE and other volatile organic compounds being extracted reached negligible levels. An estimated 3,357 pounds of TCE were removed during operation of the system. An estimate of the total mass of volatile organic compounds in soil at the Site was not reported. A significant reduction in concentrations of TCE and other compounds was noted in groundwater immediately downgradient of the warehouse following vapor extraction actions. This suggests that the vapor extraction actions were successful in removing the majority of contaminants below the building. A maximum of 0.18 mg/kg TCE was reported in the confirmation soil samples collected in the identified release area immediately outside of the west bay doors. No other volatile organic compounds were detected above laboratory method reporting limits. Confirmation soil samples were not collected from beneath the floor of the building, however, due to the presence of the vapor barriers. The extent and magnitude of residual impacts to soil under the 1964 William Street warehouse, if any, is therefore not known. (*Remedial Investigation Technical Memorandum*, January 12, 2001).

- b) **Groundwater:** A pilot test for interim remediation of impacted groundwater was carried out at the Site during the latter half of 1997. The test included the injection of toluene into impacted groundwater in an attempt to generate co-metabolic in-situ degradation TCE and other volatile organic compounds present. Results of the pilot test were reportedly inconclusive. A summary report was not submitted.

A proposal for a second pilot test for groundwater remediation (*Work Plan for Groundwater Remediation Pilot Test*, December 7, 1999) was approved by the Board in a letter dated January 28, 2000. Carbohydrate solutions were injected into impacted groundwater in two test areas over a period of approximately one year (February 2000 to March 2001). The intent of the injections was to induce reductive dechlorination of TCE. As discussed in the RAP, the results of the study indicated a significant reduction of TCE concentrations in the pilot test areas and an increase in the concentrations of breakdown products. This suggested that the method could be successful in remediation of the plume if implemented on a larger and longer-term scale.

9. **Environmental Risk Assessment**

- a) **Screening Levels:** A screening level environmental risk assessment was carried out to evaluate potential environmental concerns related to identified soil and groundwater impacts. Chemicals evaluated in the risk assessment include TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride, the primary chemicals of concern identified at the Site.

As part of the assessment, site data were compared to Risk-Based Screening Levels (RBSLs) compiled by Board staff (December 2001). The presence of chemicals at concentrations above the RBSLs indicates that additional evaluation of potential threats to human health and the environment is warranted. Screening levels for groundwater address the following environmental concerns: 1) drinking water impacts (toxicity and taste and odor), 2) impacts to indoor air and 3) migration and impacts to aquatic habitats. Screening levels for soil address similar concerns, including: 1) direct exposure, 2) impacts to indoor air, 3) leaching to groundwater and 4) nuisance issues. Screening levels for drinking water are based on the lowest of toxicity-based standards (e.g., promulgated Primary Maximum Contaminant Levels (MCLs) or equivalent) and standards based on taste and odor concerns (e.g., Secondary MCLs or equivalent). Chemical-specific screening levels for other human health concerns (i.e., indoor-air and direct-exposure) are based on a target excess cancer risk of 1×10^{-6} for carcinogens and a target Hazard Quotient of 0.2 for noncarcinogens. Groundwater screening levels for the protection of aquatic habitats are based on promulgated surface water standards (or equivalent). The Board considers a cumulative risk of 1×10^{-5} and a target Hazard Index of 1.0 to be generally acceptable for human health concerns at commercial and industrial properties. Soil screening levels for potential leaching concerns are intended to prevent impacts to groundwater above target groundwater goals (e.g., drinking water standards). Soil screening levels for nuisance concerns are intended to address potential odor and other aesthetic issues.

- b) **Soil Assessment:** Reported concentrations of TCE in samples collected from the release area immediately outside of the west bay doors of the warehouse after completion of the interim remedial measures were below the lowest risk-based screening level of 0.40 mg/kg. No other volatile organic compounds were detected in the samples. Identified residual impacts to soil in this area were therefore concluded to not pose a significant risk to human health and the environment. As discussed in Finding 8a, impacted soils were partially excavated and a soil vapor extraction system operated until the mass of TCE and other volatile organic compounds being extracted reached negligible levels. The extent and magnitude of remaining, residual impacts to soil under the warehouse, if any, is not known.
- c) **Groundwater Assessment:** Recent (generally 2001 and 2002) maximum-reported concentrations of chemicals of concern in groundwater were compared to screening levels for drinking water concerns, indoor-air impact concerns and surface water (aquatic habitat) impact concerns. A summary of this comparison is provided below. Further assessment of highlighted concerns is discussed in the subsequent sections.

| Chemicals of Concern | Maximum Reported Concentration (ug/L) | Results of Screening Assessment | | |
|-------------------------------------|---------------------------------------|-----------------------------------|-------------------------------|------------------------------------|
| | | Potential Drinking Water Concerns | Potential Indoor-Air Concerns | Potential Aquatic Habitat Concerns |
| Primary Chemicals of Concern | | | | |
| TCE | 50,000 | X | X | X |
| cis-1,2 DCE | 31,000 | X | X | X |
| trans-1,2 DCE | 30 | X | | |
| Vinyl Chloride | 450 | X | X | |
| Other Chemicals Present | | | | |
| Chloroform | 7.5 | | | |
| 1,1 DCA | 25 | X | | |
| 1,2 DCA | 6.0 | X | | |
| 1,1 DCE | 170 | X | X | X |
| PCE | 56 | X | | |
| 1,1,1 TCA | 320 | X | | X |
| 1,1,2 TCA | 5.8 | X | | |
| TCFM | 82 | | | |

*Potential environmental concerns denoted by "X" (respective Risk-Based Screening Level exceeded).

No wells currently used for drinking water were identified in the area. Testing of industrial water supply wells located within or near the boundaries of the plume did not identify impacts above drinking water standards. The plume is not known to underlie residential areas and is assumed to not pose a significant threat to indoor-air in such areas. Based on the results of a site-specific vapor flux study, potential impacts to indoor air in commercial and industrial buildings that overlie the plume were estimated to be below a target, cumulative cancer risk 1.0×10^{-5} for carcinogens and a Hazard Index of 1.0 for noncarcinogens. Impacted groundwater is not known to be currently discharging to surface water. The plume is progressively migrating towards the San Francisco Bay, however, and is currently 2,000 feet from the Bay margin.

- d) **Environmental Risk Assessment Conclusions:** Based on the results of the soil assessment, residual impacts to soil in the area immediately outside of the west bay doors of the warehouse do not pose a threat to human health and the environment and additional remedial actions are not needed. Management of any impacted soil that may remain in-place under the existing warehouse will be addressed in a Site Management Plan and deed restriction to be prepared for the Site under Tasks 3 and 4 of this Order (see Cleanup Plan, Finding 11).

Based on the results of the groundwater assessment, releases from the Site have adversely impaired the beneficial use of the groundwater as a potential source of drinking water. Although no impacts to current drinking water supplies were identified, the potential exists for future supplies to be threatened. At reported concentrations of chemicals of concern, the plume poses a potential threat to aquatic habitats should the plume migrate to and discharge into a body of surface water in the future. Additional action to address potential drinking water impact and surface water impact is therefore warranted.

Due to excessive risk that will be present at the site pending full remediation, institutional constraints are appropriate to limit on-site exposure to acceptable levels. As summarized in Finding 11 (Cleanup Plan), these constraints are intended to prevent direct contact (ingestion, dermal contact, etc.) of workers with impacted soil and groundwater that may be present under the existing warehouse. The constraints also prohibit use of the property for residential or other sensitive use until such time that a detailed evaluation of residual impacts under the buildings is made.

10. **Feasibility Study:** A final *Remedial Action Plan* (RAP) was submitted December 13, 2001. An addendum to the RAP was submitted August 9, 2002. The report includes a screening of alternative groundwater remedial actions necessary to meet specific remedial action objectives.

Remedial alternatives evaluated include: 1) enhanced reductive dechlorination, 2) groundwater extraction and treatment, 3) chemical oxidation, 4) monitored natural attenuation and 5) no further action. Each potential remedial alternative for groundwater was evaluated based on 1) the overall protection of human health and the environment, 2) compliance with ARARs and TBCs, 3) long-term effectiveness and permanence, 4) reduction of VOC toxicity, mobility, or volume, 5) short-term effectiveness, 6) implementability, 7) implementation and maintenance costs, 8) state acceptance, and 9) community acceptance.

11. **Cleanup Plan:** Based on the results of the feasibility study, enhanced reductive dechlorination was selected as the preferred remedial measure to address the identified groundwater impacts. A detailed discussion of the proposed action is provided in the RAP. Carbohydrate solutions will be injected into five areas of the plume. In-situ reaction zones created in each area will serve as reactive barriers that break down TCE and related compounds as the plume passes through these zones. Active injection will initially take place over a period of three to four years. The need for continued active treatment or implementation of an alternative contingency plan will be based on monitoring results during this period. The RAP presents a short-term goal (i.e., the goal during the period of active injection) of reducing the concentration of chemicals of concern in groundwater to levels that are at or below surface water protection goals (as presented in Finding 9).

The long-term goal is to reduce the concentration of chemicals of concern in groundwater to levels below the more stringent of the drinking water and surface water standards presented in Finding 9. Doing so will address all potential human health and environmental concerns related to the identified impacts. In addition, a deed restriction will be prepared and recorded that addresses the following issues: 1) prohibits use of the Site for other than commercial or industrial purposes and 2) prohibits the installation of water supply wells on the Site. The deed restriction will also present, as attachments, a plan for evaluating and managing impacted soil that may remain in place at the Site and a fact sheet that summarizes environmental issues for future owners and occupants.

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 discharge and requires attainment of background levels of water quality, or the highest level of water quality that 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. The previously cited cleanup plan confirms the Board's initial conclusion that background levels of water quality cannot be restored due to the technological and economic constraints of available remediation technologies. This order and its requirements are consistent with Resolution No. 68-16.

State 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.

- b) **Beneficial Uses:** 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 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. Groundwater underlying and adjacent to the site qualifies as a potential source of drinking water.

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 water supply;
- Agricultural water supply.

- c) **Basis for Groundwater Cleanup Standards:** The groundwater cleanup standards for the site are based on applicable water quality objectives and are the more stringent of USEPA and California MCLs for drinking water and chronic surface water standards. Cleanup to these levels will result in acceptable residual risk to human health and aquatic habitats.
13. **Future Changes to Cleanup Standards:** The goal of this remedial action is to restore the beneficial uses of groundwater underlying and adjacent to the site. Results from other sites suggest that full restoration of beneficial uses to groundwater as a result of active remediation at this site may not be possible. If full restoration of beneficial uses is not 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. **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.
15. **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.
16. **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.

17. **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.
18. **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 dischargers (or 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. GROUNDWATER CLEANUP PLAN AND CLEANUP STANDARDS

1. **Implement Cleanup Plan:** The dischargers shall implement the cleanup plan described in Finding 11.
2. **Groundwater Cleanup Standards:** The following cleanup standards shall be met throughout the area of impacted groundwater:

| Chemicals of Concern | ¹Cleanup Standard (ug/L) | Basis |
|-----------------------------|--|---------------------------------------|
| TCE | 5 | California Primary MCL |
| cis-1,2 DCE | 6 | California Primary MCL |
| trans-1,2 DCE | 10 | California Primary MCL |
| Vinyl Chloride | 0.5 | California Primary MCL |
| Chloroform | 100 | California Primary MCL |
| 1,1 DCA | 5.0 | California Primary MCL |
| 1,2 DCA | 0.50 | California Primary MCL |
| 1,1 DCE | 6.0 | California Primary MCL |
| PCE | 5.0 | California Primary MCL |
| 1,1,1 TCA | 62 | ² USEPA Surface Water Goal |
| 1,1,2 TCA | 5.0 | California Primary MCL |
| TCFM | 150 | California Primary MCL |

1. Lowest of drinking water and aquatic habitat protection goals.
2. USEPA Ecotox Threshold, January 1996, EPA 540/F-95/038.

C. TASKS

1. WORKPLAN FOR REMEDIAL ACTION

COMPLIANCE DATE: March 14, 2003

Submit a workplan acceptable to the Executive Officer for implementation of the cleanup plan described in Finding 11. The workplan should describe all significant implementation steps and should include a specific implementation schedule.

2. **IMPLEMENTATION OF REMEDIATION SYSTEM**

COMPLIANCE DATE: July 16, 2003

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 1 workplan. For ongoing actions, such as carbohydrate solution or equivalent injection, the report should document system start-up (as opposed to completion) and should present initial results on system effectiveness (e.g. key chemical parameters, etc.). Proposals for further system expansion or modification may be included in annual reports.

3. **SITE MANAGEMENT PLAN**

COMPLIANCE DATE: August 13, 2003

Submit a technical report acceptable to the Executive Officer that includes:

- a. Screening levels for chemicals of concern potentially present in soils beneath the Site; and
- b. A plan for evaluating and managing soil with residual impacts that exceeds soil screening levels, should impacted soil be discovered during future redevelopment of the property;

4. **PROPOSED DEED RESTRICTION AND FACT SHEET/DISCLOSURE STATEMENT**

COMPLIANCE DATE: August 13, 2003

Prepare a draft deed restriction acceptable to the Executive Officer for the Site that: 1) Prohibits use of the Site for other than commercial or industrial purposes without the prior written consent of the Board and 2) Prohibits the installation of water supply wells on the Site. Prepare a fact sheet acceptable to the Executive Officer that provides a brief environmental history of the Site. The fact sheet shall be made available in connection with all future transfers of the Site (or any portion thereof) and incorporated as an attachment to the Deed Restriction. Incorporate the Site Management Plan discussed in Task 3 above by reference and as an attachment to the Deed Restriction.

5. **RECORD DEED RESTRICTION**

COMPLIANCE DATE: 60 days after Executive Officer approval of Task 4

Provide a copy of the recorded deed restriction to the Board for inclusion in the public file.

6. **ANNUAL STATUS REPORT**

COMPLIANCE DATE: Beginning September 30, 2004, and annually thereafter

Submit a technical report acceptable to the Executive Officer on an annual basis that summarizes and evaluates the effectiveness of the approved cleanup plan. Each annual report should include:

- a. Summary of contaminant concentrations in plume;
- b. Comparison of contaminant concentration trends with cleanup standards;
- c. General summary of performance data (e.g. degradation trends, etc.);
- d. Summary of additional investigations (including results);
- e. Summary of significant modifications to remediation systems.

In addition, the following issues should be included in the status report at the end of each three-year period (beginning July 31, 2006):

- a. Summary of effectiveness in controlling contaminant migration and protecting human health and the environment;
- b. Detailed performance evaluation (e.g. degradation analysis, estimated chemical mass removed, etc.);
- c. Additional remedial actions proposed to meet cleanup standards (if applicable) including time schedule.

If cleanup standards have not been met and are not projected to be met within the timeframe presented in the approved cleanup plan, the report should assess the technical practicability of meeting cleanup standards.

7. **WORKPLAN FOR ALTERNATIVE CLEANUP PLAN**

COMPLIANCE DATE: 120 days after requested by Executive Office

Submit a workplan acceptable to the Executive Officer for selection of an alternative cleanup strategy that does not involve reductive dechlorination. The

workplan shall describe a cleanup plan that will control and remove chemicals of concern in groundwater to the target goals described under Item B above. The workplan shall also describe all significant implementation steps and shall include an implementation schedule. This task provides a contingency in the event that reductive dechlorination fails to demonstrate efficacy despite reasonable results.

8. **IMPLEMENTATION OF ALTERNATIVE CLEANUP METHOD**

COMPLIANCE DATE: 90 days after Executive Office approval for Task 7 workplan

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks specified in the Task 7 workplan.

9. **PROPOSED CURTAILMENT**

COMPLIANCE DATE: 60 days prior to proposed curtailment

Submit a technical report acceptable to the Executive Officer containing a proposal to curtail remediation. Curtailment includes suspension of the remedial action (e.g. ceasing carbohydrate solution injections) and significant system modification (e.g. major reduction in injection rates or areas included in injections). The report should include the rationale for curtailment. Proposals for final closure should demonstrate that cleanup goals proposed in the RAP have been met, contaminant concentrations are stable, and contaminant migration potential is minimal.

10. **IMPLEMENTATION OF CURTAILMENT**

COMPLIANCE DATE: 60 days after Executive Officer approval

Submit a technical report acceptable to the Executive Officer documenting completion of the tasks identified in Task 9.

11. **EVALUATION OF NEW HEALTH CRITERIA**

COMPLIANCE DATE: 90 days after requested by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved cleanup plan of revising one or more cleanup standards in response to revision of drinking water standards, maximum contaminant levels, or other health-based criteria.

12. **EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: 90 days after requested
by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved cleanup plan and cleanup standards for this site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved cleanup plan or cleanup standards.

13. **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.

D. 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 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 San Leandro Fire Department

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.

12. **Rescission of Existing Order:** This Order supercedes and rescinds Order No. 00-052.
13. **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 November 20, 2002.


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: Self-Monitoring Program
Site Map

**ATTACHMENT A
SELF MONITORING PLAN**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

W.S. ASSOCIATES

AND

NESTLE USA - BEVERAGE DIVISION

for the property located at

1964 WILLIAMS STREET
SAN LEANDRO
ALAMEDA 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. R2-2002-0123 (site cleanup requirements).
2. **Monitoring:** The dischargers shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Quarterly (March, June, September, December)

MW-9A, MW-14A, MW-18A, MW-19A, MW-24A, MW-25A, MW-27A, MW-28A,
MW-29A, MW-34A, MW-35A, MW-36A, MW-37A, MW-38A, MW-39A, MW-40A,
MW-41A, MW-42A, MW-43A, MW-9B, MW-19B, MW-23B, MW-25B, MW-31B,
MW-32A, MW-33A

Semi-Annual (June, December)

MW-12A, MW-13A, MW-15A, MW-17A, MW-30A, MW-12B, MW-13B, MW-15B,
MW-17B, MW-26B, MW-17C

Annual (December)

MW-4A, MW-6A, MW-8A, MW-11A, MW-16A, MW-10B, MW-18B, MW-20B,
MW-21B, MW-22B, MW-24B, MW-10C

Samples will be analyzed using USEPA Method 8021B or equivalent (including vinyl chloride).

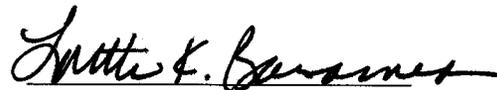
The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The dischargers 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 April 30). 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 dischargers' 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 (however, see record keeping - below).
 - d. **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,

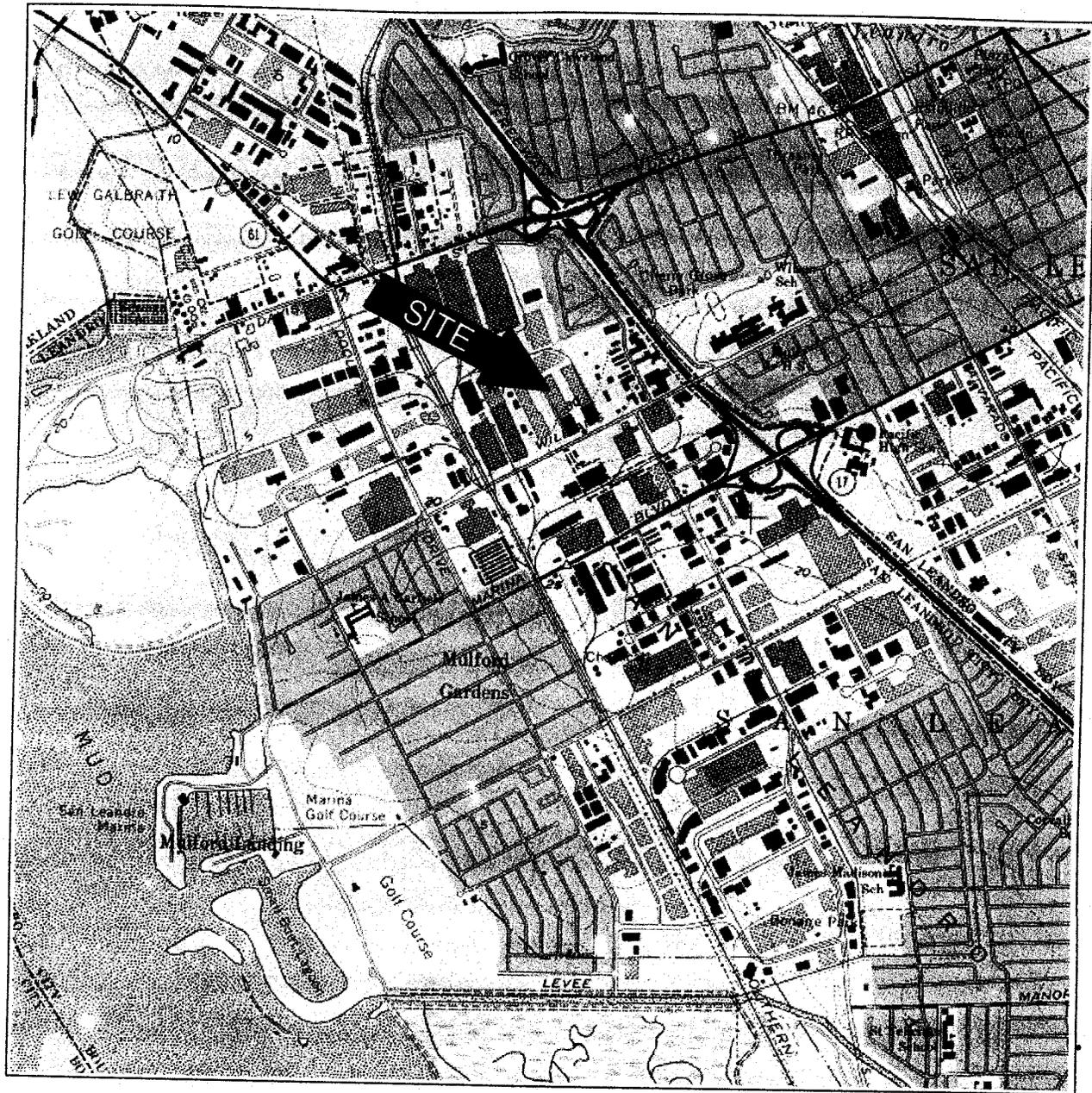
depending on violation severity, require the dischargers to submit a separate technical report on the violation within five working days of telephone notification.

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.

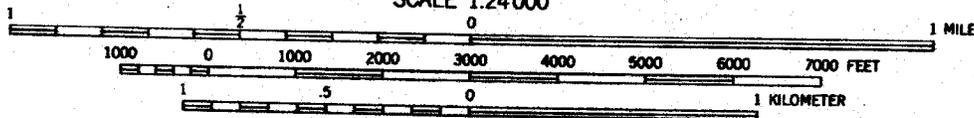
I, Loretta K. Barsamian, Executive Officer, do hereby certify that that this Self-Monitoring Program was adopted by the Board on November 20, 2002.



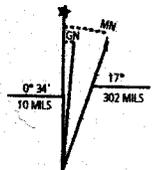
Loretta K. Barsamian
Executive Officer



SCALE 1:24 000



CONTOUR INTERVAL 20 FEET



Reference: U.S.G.S. 7.5-minute quadrangle San Leandro, California. 1959 photorevised 1980.

UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

RC000558.0001



SITE LOCATION MAP
 1964 Williams Street
 San Leandro, California

FIGURE

1