

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER No. 01-054

ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER  
NO. 98-067 FOR:

JONES-HAMILTON COMPANY

for the property located at

8400 ENTERPRISE DRIVE  
NEWARK, ALAMEDA COUNTY

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

1. **Site Location:** The site is located at 8400 Enterprise Drive, Newark, Alameda County (hereinafter the site). The site is located west of I-880 and east of salt evaporation ponds in an area with various industrial and commercial uses (figure 1). The site occupies an area of approximately 20.5 acres. Approximately half of the site (eastern half) is undeveloped and the rest is either paved with asphalt or concrete or is covered with buildings.
2. **Site History:** Jones-Hamilton Company began operations at the site in 1956 as a chemical blending and packaging facility. Prior to 1956, the site was used for agricultural purposes. From 1956 to the early 1980s a variety of chemicals were blended, packaged and warehoused on-site. Chemicals handled included sodium bisulfate, hydrochloric acid, arsenic acid, chromic acid, cupric acid, pentachlorophenol (PCP) and others. Sodium bisulfate was also manufactured on-site before 1985. Packaging of hydrogen peroxide was started in the early 1970s and sulfuric acid purification and packaging operations started in late 1985. Hydrogen peroxide and sulfuric acid are the only two chemicals that have been packaged on-site since the end of 1985 and this use continues today. Blending and packaging for all other chemicals was discontinued after October 1985.

A 1,000-gallon underground storage tank (UST) for gasoline was installed in 1956 to provide fuel to forklifts. The UST was removed in the early 1970s when the forklifts were converted to propane power source.

Jones-Hamilton Company operated two surface evaporation ponds on the southwestern quarter of the site between 1975 and 1985. Each pond had a surface area of approximately 1.1 acres. Stormwater and process wastewater were discharged into one of the two ponds for evaporation. Both ponds were constructed initially of compacted native soil. The two surface evaporation ponds were identified as the source of PCP contamination in shallow groundwater beneath the site. The two ponds were closed in-place in October 1988 with a three-foot wide soil-bentonite slurry wall circling the two ponds and several layers of low-permeability surface covers. The Board certified the pond closure on December 12, 1990.

Jones-Hamilton Company has owned the property since 1956 and is the current property owner.

3. **Named Dischargers:** Jones-Hamilton Company is named as a discharger because its activities on the site caused soil and groundwater pollution and because it was and is the property owner.

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 was previously subject to the Board's Site Cleanup Requirements (Order No. 98- 067) adopted on July 15, 1998. The purpose of revising Order No. 98-067 was to prepare Final Site Cleanup Requirements.

5. **Site Hydrogeology:** The site is located within the Niles Cone groundwater basin. The Newark Aquitard is the uppermost clay unit covering nearly all of the Niles subarea, and is underlain by three identified aquifers, namely, the Newark Aquifer, Centerville-Fremont Aquifer and the Deep Aquifer. Each of these aquifers is separated by an extensive clay aquitard. The Newark Aquifer is the uppermost aquifer within the Niles subarea and ranges between 40 and 140 feet below ground surface (bgs). The thickness of this aquifer ranges from greater than 140 feet at the Hayward fault to less than 20 feet at the western edge near the San Francisco Bay. Lithologically, the site is characterized by a thin layer of fill materials underlain by three alluvial deposits units. These units are collectively termed as the Shallow zone for the purpose of this Order. Groundwater levels in the Shallow zone below the site generally range between 5 and 10 feet bgs, and the groundwater flow varies between westerly and southwesterly with a nearly flat gradient. There is a minimum of 30-foot thick clay layer (aquitard) separating the Shallow zone and the Newark Aquifer beneath the site (EMCON, October 1987). Groundwater elevation measurements have indicated an upward vertical hydraulic gradient of approximately 0.025 ft/ft between the Newark Aquifer and the Shallow zone. However, the vertical gradient could be reversed, depending on hydrologic conditions. Topographically, the site is relatively horizontal with an elevation of approximately 11 feet above Mean Sea Level (MSL).

The nearest surface water body in this area is the Plummer Creek, a tidal tributary of South San Francisco Bay which drains into the Newark Slough at the southwest direction of the site. The Newark Slough drains into the Bay.

6. **Remedial Investigation:** The site has been adequately characterized. Remedial investigation began in 1984. Groundwater at the site has been monitored regularly since 1985. On-site and off-

site investigations reported various organic chemicals of concern (CoCs) in the shallow groundwater outside the two closed surface evaporation ponds. The deeper zones are not impacted. The detected chemicals in shallow groundwater are PCP, TCP, 1,1-DCA, 1,2-DCA, BTEX, and TPHg. The concentrations of CoCs have decreased since 1989 due partially to the operation of a groundwater pump-and-treat system. The maximum concentrations of CoCs detected in shallow groundwater since July 1998 are:

Constituents or Chemicals of Concern (CoCs)	Maximum Levels Detected (ug/L)	Locations of Maximum Detection
1,2-Dichloroethane (1,2-DCA)	2800	J-9R
Pentachlorophenol (PCP)	860	J-2
Tetrachlorophenols (TCP)	840	J-2
1,1-Dichloroethane (1,1-DCA)	91	J-4R
Benzene	280	J-10
Toluene	140	J-10
Total Xylenes	120	J-10
Petroleum Hydrocarbons (gasoline)	1200	J-10

The source of the PCP and TCP was the two surface evaporation ponds, which were closed in October 1988. The source of gasoline and its constituents (benzene, toluene, ethylbenzene, and xylenes – BTEX) was the 1,000-gallon gasoline UST, which was removed in the early 1970s. The contamination of gasoline and its constituents is limited to the former UST location (near well J-10). However, the origin of the 1,2-DCA and 1,1-DCA beneath the Jones-Hamilton Company site is not clear because Jones-Hamilton Company has no known history of handling the DCA. DCA were not detected in soil samples collected throughout the site, including the area of the former evaporation ponds. DCA contamination is higher at adjacent sites (see Finding 9).

The Newark Aquifer beneath the site has not been impacted by the CoCs. However the existence of CoCs in the Newark Aquifer at nearby sites (Ethylene Dibromide at FMC and 1,2-DCA at FMC and Ashland Chemical) indicates that transport of contaminants from the shallow zone to the Newark Aquifer has occurred in the vicinity of Jones Hamilton. This, in turn, indicates some potential interconnection between the shallow zone and the Newark Aquifer near Jones Hamilton site.

7. **Interim Remedial Measures:** Jones-Hamilton Company has implemented soil and groundwater remedial measures that included soil excavation, source encapsulation and a groundwater pump-and-treat system at the site.

- a. **Soil Remedial Measures and Source Encapsulation**

Polluted soil has been excavated in the vicinity of the two surface evaporation ponds. The two ponds were closed in-place in October 1988. A three-foot wide soil-bentonite slurry wall, which is keyed into the Newark aquitard, circled the two ponds. Samples of the slurry wall were tested for hydraulic conductivity and had an average of  $1.5 \times 10^{-8}$  cm/s. Details of the slurry wall

construction were documented in the *Soil-Bentonite Slurry Wall Construction Report* (EMCON, January 1989). The surface of the ponds was covered with: (from bottom to top) foundation layer, two feet of soil with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  cm/s, 60-mil HDPE geomembrane, geonet, geotextile, two feet of class 2 aggregate base, and four inches of asphaltic concrete. Details of the cover construction were documented in the *Impoundment Final Cover Construction Report* (EMCON, August 1989). The Board's letter dated December 12, 1990, certified that the closure is in compliance with the Toxic Pits Cleanup Act of 1984 and Subchapter 15 (Title 23, California Code of Regulations) guidelines.

Jones-Hamilton Company reported that PCP was detected in soil near one monitoring well (J-12) outside the closed impoundments area, at the maximum concentration of 0.17 milligram per kilogram (mg/kg). This concentration is below the USEPA Region 9 Tier 1 preliminary remedial goal (PRG) of 11 mg/kg for industrial site use. Soil contamination is now limited to inside the two closed impoundments, which were capped and closed in 1989. PCP and TCP were not detected in soil in any other locations outside the impoundments area. 1,2-DCA and 1,1-DCA were not detected in soil within or outside the two impoundments.

#### **b. Interim Groundwater Remedial Measures**

An interim groundwater remedial measure has been implemented since 1985. The interim measure involves extraction of groundwater from five shallow-zone wells, activated carbon treatment of the extracted groundwater, and discharge of the treated water to the local sewer under a POTW permit. Two of the five extraction wells (EW-2 and EW-4) are located inside the closed impoundment area, one (J-10) is located near the former gasoline UST, and the other two (J-4R and J-15) are located in areas near the impoundments to extract shallow groundwater with DCA and residual PCP and TCP. The combined groundwater extraction rate has historically been approximately 5 gallons per minute (gpm).

The following reductions in chemical concentrations have occurred due to operation of the pump and treat system: PCP concentrations decreased from the peak level of 1500 microgram per litre (ug/l) in 1994 to the current maximum concentration of 700 ug/l in 2000, TCP from the peak level of 1700 ug/l in 1993 to the current maximum concentration of 680 ug/L in 2000, 1,1-DCA from 120 ug/l in 1996 to the current maximum concentration of 86 ug/l in 2000, 1,2-DCA from 37000 ug/l in 1991 to the current maximum concentration of 2100 ug/l in 2000, and Benzene from 27000 ug/l in 1991 to the current maximum concentration of 68 ug/l in 2000.

8. **Adjacent Sites:** Four neighboring sites are currently conducting groundwater cleanup under Board Orders. The following are the sites with their corresponding addresses: FMC (8787 Enterprise Drive, Newark), Romic Environmental Technologies [37445 Willow Street, Newark (formerly known as Romic Chemicals)], Ashland Chemicals (8610 Enterprise Drive, Newark) and Baron Blakeslee/Allied-Signal (8333 Enterprise Drive, Newark) (figure 2). Three of these sites are located immediately downgradient or cross-gradient of the site. Baron Blakeslee is cross-gradient of this facility and is currently implementing soil and groundwater remediation. Pollutants from the sites have commingled to some extent in the shallow groundwater zone. The source of DCA at the subject site is

probably from these four sites because they handled chemicals that are parent chemicals to DCA. There is currently limited coordination of remedial actions involving groundwater elevation measurements of the Shallow zone and the Newark Aquifer. Ongoing coordination among the sites is desirable.

9. **Groundwater Management:** The Alameda County Water District (ACWD) manages groundwater resources in the Newark, Union City, and Fremont area. On average 35% of the residents' water supply comes from groundwater, most of this from well fields located about 5 miles east of the site. ACWD's management activities address saltwater intrusion caused by past overdrafting of the Newark Aquifer and deeper aquifers for domestic and agricultural uses. ACWD has reversed the overdrafting by recharging imported water and operates several extraction wells to remove high salinity groundwater from the Newark Aquifer and deeper aquifers within the Niles Cone (Aquifer Reclamation Program or ARP). ACWD is planning on treating a portion of its ARP pumpage for portable use with a proposed desalination plant about 1.5 miles southeast of the site.

In the late 1970s, ACWD initiated construction of an alignment of extraction wells in the Newark Aquifer to serve as salinity barrier curtain. The curtain had been planned to expand in a north-south direction, just inland of the salt evaporation ponds, for the entire width of the Niles Cone. The Salinity Barrier Project (SBP) wells would serve two functions: (i) prevent salt water intrusion during drought periods and (ii) hasten the removal of saline groundwater in the Newark Aquifer east of the SBP wells. At this time, ACWD has completed construction of five wells, including one within 1,500 feet of the site. Installation of additional wells has been postponed pending a re-evaluation of the project. ACWD is considering operating these wells as part of the Aquifer Reclamation Program. At least one SBP well is currently being evaluated as a potential raw water supply source for the desalination plant.

Chloride concentrations in the Newark Aquifer beneath the site range from 15,000 to 20,000 ppm, mainly as a result of saltwater intrusion. The site is located west (or bayward) of the proposed SBP wells alignment. Chloride concentrations at the site are therefore not expected to decline, even after extended operation of SBP wells.

However, operating the SBP wells may accelerate the migration of VOCs in shallow groundwater, both laterally and vertically. If significant VOC concentrations migrate to the SBP wells, then ACWD may be required to treat SBP well pumpage prior to discharging it to surface waters or blending it with raw water for beneficial purposes.

10. **Feasibility Study:** Jones-Hamilton Company evaluated remedial alternatives for soil and groundwater based on technical feasibility and reliability, cleanup time, ability to protect groundwater quality, implementability, and construction and operation and maintenance cost.

**Soil** – Jones Hamilton has recommended no further action for soil because most of the contaminated soil was inside the two surface evaporation ponds, which were encapsulated in-place in October 1988 (see Finding 7a). The Board certified the closure on December 12, 1990. Residual contaminated soil outside the ponds has been removed.

**Groundwater** – Jones Hamilton has recommended monitored natural attenuation based on evaluation of the installed IRM and the USEPA Bioplume III modeling results. A pump-and-treat system has been in operation since 1989. It was effective in contaminant mass removal initially. However, the system becomes less effective as the concentration decreases. The USEPA Bioplume III model was used for plume stability analysis and for comparing the effect of pumping with respect to natural attenuation (URS, December 1999). The modeling's results indicate that the shallow groundwater plume will shrink slowly even without the continued operation of the existing groundwater pumping system. It is recommended that the existing interim groundwater remedial measure (the pump-and-treat system) be discontinued. Monitored natural attenuation and groundwater pump and treat were the two remedial alternatives considered for the site. Other alternatives (e.g., insitu bioremediation, enhanced on and off site natural attenuation) were not considered because of the high salinity and the flat groundwater gradient beneath the site.

11. **Cleanup Plan:** Jones-Hamilton Co. submitted a remedial action plan (RAP) in May 8, 2000. A final RAP was submitted on October 24, 2000. The RAP summarizes the remedial investigation, evaluates IRMs and cleanup alternatives, and proposes monitored natural attenuation as a final remedy for groundwater, and a no further action for soil (finding 10). The RAP proposes cleanup standards for groundwater and evaluates risk to human health.
12. **Risk Assessment:** The shallow groundwater zone beneath the site is not suitable for domestic supply due to high TDS levels (>3,000 mg/L). The risk assessment (URS, October 2000) was conducted based on the current and future commercial/industrial site use. A site conceptual exposure model was presented that identified two scenarios of potential chemical exposure: on-site/off-site commercial/industrial workers and future construction workers. Jones Hamilton found the following exposure pathways to be complete and significant: vapor inhalation from soil and groundwater by indoor and construction workers, particulate inhalation and ingestion and dermal contact of surface soil by construction workers, and ingestion and dermal contact of subsurface soil and groundwater by construction workers. No potential complete ecological exposure pathways were identified.

The Tier 1 screening level criteria are summarized below for groundwater:

Constituents or Chemicals of Potential Concern (CoCs)	Tier 1 Screening Level Criteria (ug/L)	Reference
1,2-Dichloroethane (1,2-DCA)	0.5	Drinking water MCL
Pentachlorophenol (PCP)	1	Drinking water MCL
Tetrachlorophenols (TCP)	1100	USEPA Region 9 PRG
1,1-Dichloroethane (1,1-DCA)	5	Drinking water MCL
Benzene	1	Drinking water MCL
Toluene	150	Drinking water MCL
Total Xylenes	1750	Drinking water MCL

Because the maximum detected concentrations of TCP, toluene and total xylenes did not exceed their respective Tier 1 screening level criteria, these CoCs were not further considered in the Tier 2 evaluation.

Tier 2 Site-Specific Target Levels (SSTLs) were developed for PCP, benzene, 1,1-DCA, and 1,2-DCA based on the identified exposure pathways, site-specific input parameters, and a cumulative excess cancer risk of  $1 \times 10^{-5}$  and a cumulative hazard index (HI) of 1.0 for non-carcinogens (URS, October 2000).

The Tier 2 SSTLs are summarized below for groundwater:

Chemicals of Potential Concern (CoCs)	SSTLs (Tier 2, ug/L) Commercial Worker	SSTLs (Tier 2, ug/L) Construction Worker	Maximum Detected Concentration (ug/L)
Pentachlorophenol (PCP)	14,000	14,000	860
Benzene	59,000	734,000	280
1,1-Dichloroethane (DCA)	133,000	5,060,000	91
1,2-DCA	32,000	1,700,000	2,800

The maximum detected concentrations of the CoCs are significantly below their respective SSTLs, indicating that the CoCs do not pose unacceptable health risk.

13. **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 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. The previously cited cleanup plan provides sufficient rationale that background levels of water quality cannot be restored at a reasonable period of time using only the current "pump and treat" system. 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 groundwater.

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 the vicinity of the site qualifies as a potential source of drinking water.

The Basin Plan designates the following potential beneficial uses of groundwater underlying the vicinity of the site:

- 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.

The existing and potential beneficial uses of the Plummer Creek, a tidal tributary of South San Francisco Bay, include:

- a. Water contact and non-contact recreation
  - b. Wildlife habitat
  - c. Cold freshwater and warm freshwater habitat
  - d. Fish migration and spawning
  - e. Estuarine habitat
- 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 EPA and California primary maximum contaminant levels (MCLs). Cleanup to this level will result in acceptable residual risk to humans. MCLs are required as groundwater cleanup standards because the site is in the vicinity of the proposed ACWD salinity barrier project (SBP) wells. Groundwater from these wells may be utilized to blend with raw water for beneficial use.

14. **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 with current technologies. 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.

15. **Reuse or Disposal of Extracted Groundwater:** 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.
16. **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.
17. **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.
18. **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.
19. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
20. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

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

**A. PROHIBITIONS**

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. CLEANUP PLAN AND CLEANUP STANDARDS**

1. **Implement Cleanup Plan:** The discharger shall implement the cleanup plan described in finding 11.

2. **Groundwater Cleanup Standards:** The following groundwater cleanup standards shall be met in all wells identified in the Self-Monitoring Program:

Constituents	Standard (ug/l)	Basis
1,2-Dichloroethane (1,2-DCA)	0.5	California MCL
Pentachlorophenol (PCP)	1	California MCL
Tetrachlorophenols (TCP)	1100	USEPA Region 9 PRG
1,1-Dichloroethane (1,1-DCA)	5	California MCL
Vinyl Chloride	0.5	California MCL
Benzene	1	California MCL
Toluene	40	California MCL
Total Xylenes	20	California MCL

### C. TASKS

1. **PROPOSED INSTITUTIONAL CONSTRAINTS**

**COMPLIANCE DATE:** September 19, 2001

Submit a technical report acceptable to the Executive Officer documenting procedures to be used by the discharger to prevent or minimize human exposure to contaminated soil at the closed impoundments and groundwater prior to meeting cleanup standards. Such procedures shall include a deed restriction prohibiting the use of shallow groundwater as a source of drinking water and prohibiting use of the site for residential or other sensitive land uses. Such procedures shall also include a risk management plan to assure the integrity of the cap and the slurry wall of the closed surface impoundments.

2. **IMPLEMENTATION OF INSTITUTIONAL CONSTRAINTS**

**COMPLIANCE DATE:** 60 days after Executive Officer approval of task 1

Submit a technical report acceptable to the Executive Officer documenting that the proposed institutional constraints have been implemented.

3. **PROPOSED CONTINGENCY PLAN**

**COMPLIANCE DATE:** 30 days after request by Executive Officer

Submit a contingency plan acceptable to the Executive Officer describing remedial actions proposed to address CoCs migration or an increase in concentrations above the SSTLs or failure of the closed impoundment structures.

4. **CONTINGENCY PLAN IMPLEMENTATION**

**COMPLIANCE DATE:** 60 days after request by Executive Officer

Submit a technical report acceptable to the Executive Officer documenting implementation of the approved contingency plan.

5. **FIVE-YEAR STATUS REPORT**

**COMPLIANCE DATE:** April 19, 2006

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved cleanup plan. The report should include:

- a. Summary of effectiveness in controlling contaminant migration and protecting human health and the environment
- b. Comparison of contaminant concentration trends with cleanup standards
- c. Comparison of anticipated versus actual costs of cleanup activities
- d. Performance data (e.g. groundwater volume extracted, chemical mass removed, mass removed per million gallons extracted and degradation rate and products)
- e. Cost effectiveness data (e.g., cost per pound of contaminant removed)
- f. Summary of additional investigations (including results) and significant modifications to remediation systems
- g. 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 a reasonable time, the report should assess the technical practicability of meeting cleanup standards and may propose an alternative cleanup strategy.

6. **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 system closure (e.g., well abandonment), system suspension (e.g., cease extraction but wells retained), and significant system modification (e.g., major reduction in extraction rates, closure of individual extraction wells within extraction network). The report should include the rationale for curtailment. Proposals for final closure should demonstrate that cleanup standards have been met, contaminant concentrations are stable, and contaminant migration potential is minimal. The proposal shall include a schedule for implementation.

7. **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 6.

8. **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.

9. **EVALUATE THE RISK AS A RESULT OF POTENTIAL EXTRACTION OF GROUNDWATER FROM ACWD SBP WELLS**

**COMPLIANCE DATE:** 90 days after ACWD gives notice of intent to initiate operation of the SBP wells

Submit a technical report acceptable to the Executive Officer evaluating the risk as a result of potential extraction of groundwater from ACWD SBP. You should consider all chemicals of concern that could interfere with ACWD's ability or authorization to use (e.g., as a supply to a desalination plant) or dispose of the extracted groundwater.

10. **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.

11. **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 Newark Fire Department
  - b. Cal/EPA-Department of Toxic Substances Control (RCRA Facility)
  - c. Alameda County Water District

The Executive Officer may modify this distribution list as needed.

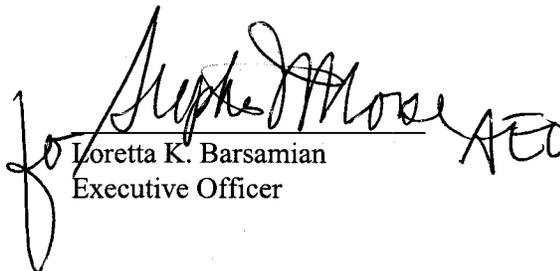
9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters 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. **Rescission of Existing Order:** This Order supersedes and rescinds Order No. 98-067.
12. **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 May 22, 2001.

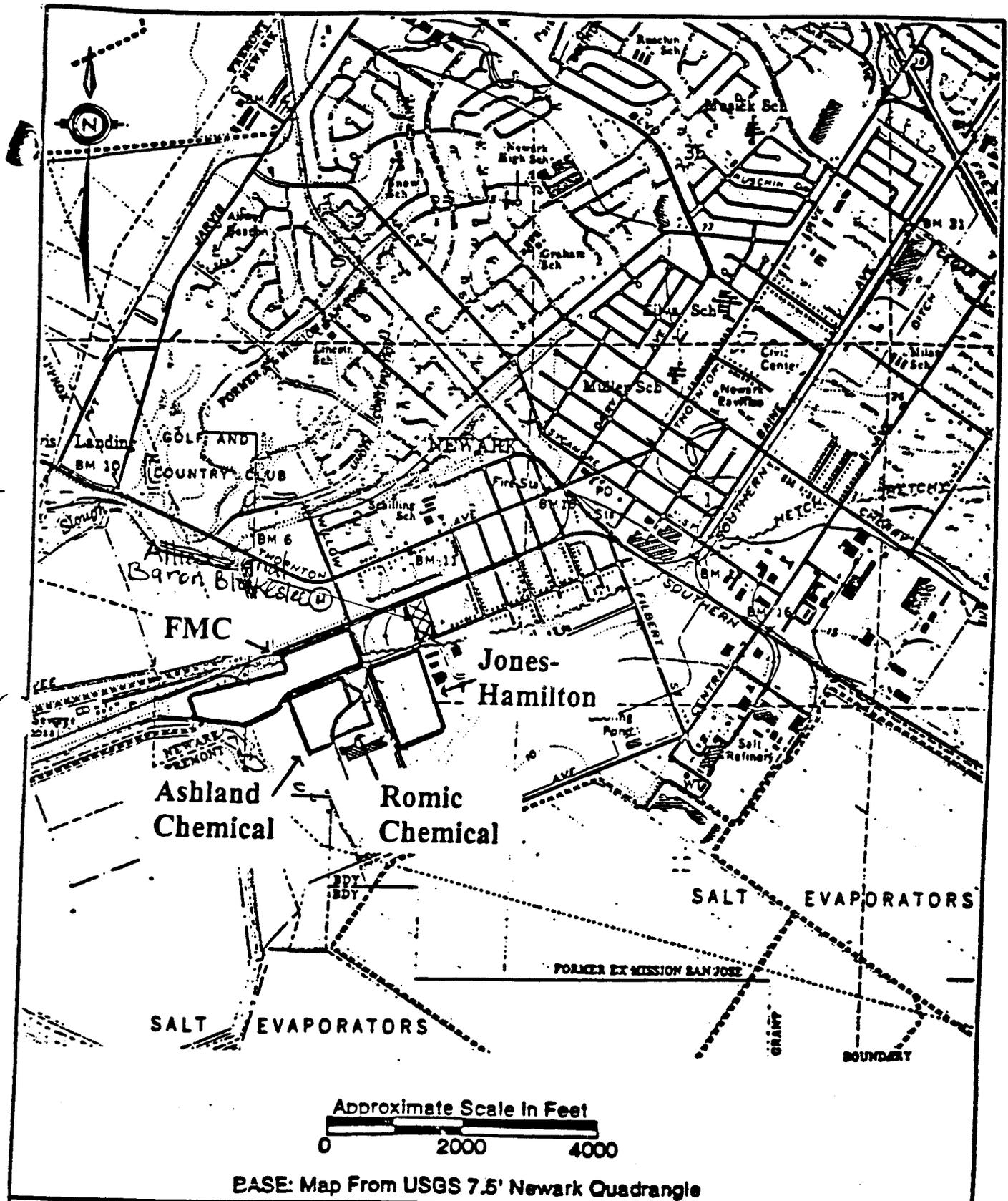
  
Loretta K. Barsamian  
Executive Officer

=====

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

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Attachments: Site Map  
Self-Monitoring Program



# Location Map

FIG. 2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

JONES-HAMILTON COMPANY

for the property located at

8400 ENTERPRISE DRIVE  
NEWARK, 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. 01-054 (site cleanup requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations semi-annually in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
J-1	SA	8010/m8150	J-14	SA	8010
J-2	SA	8010/m8150	J-15	SA	8010/m8150
J-3	A	8010/m8150	J-16*	A	8010
J-4R	SA	8010/m8150	E-106	SA	8010/m8150
J-5	A	8010	J-10	SA	8010/m8150/ m8015
J-6	SA	8010	J-13	SA	8010
J-8*	A	8010	SW-1 **	SA	m8150
J-9R	SA	8010/m8150	B-19 **	SA	m8150
J-11(u)	SA	8010	J-12	SA	8010/m8150

Key: SA = Semi-Annually A = Annually  
8010 = EPA Method 8010 or equivalent for chlorinated volatile compounds;

m8150 = EPA Method modified 8150 or equivalent for pentachlorophenol and tetrachlorophenols

m8015 = EPA Method modified 8015 or equivalent for TPH & BTEX

\* = Indicates Newark Aquifer well, all other wells are shallow groundwater wells

\*\* = Well located on Romic property

The following parameters shall be monitored on-site during groundwater sampling for all monitoring wells: temperature, pH, conductivity and dissolved oxygen. In addition the following parameter shall be monitored annually for all monitoring wells: nitrate and nitrite as nitrogen, sulfate, dissolved Iron Ferrous (II) (Fe +2 ) and total organic carbon (TOC).

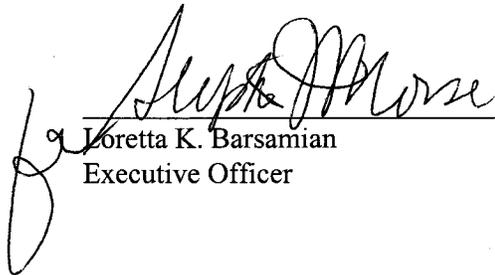
The discharger shall sample any new monitoring or extraction wells quarterly for the first year and semi-annually thereafter and analyze groundwater samples for all the constituents shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Monitoring Reports:** The discharger shall submit semi-annual monitoring reports to the Board no later than 30 days following the end of the semi-annual period (e.g. report for July through December period due January 31). The first semi-annual monitoring report shall be due on July 31, 2001. 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 second semi-annual 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 second semi-annual 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 period. 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 period. Historical mass removal results shall be included in the second semi-annual report each year.

- e. **Status Report:** The semi-annual report shall describe relevant work completed during the reporting period (e.g. interim remedial measures) and work planned for the following period.
  
- 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 May 22, 2001.

  
\_\_\_\_\_  
Loretta K. Barsamian  
Executive Officer

AED



# California Regional Water Quality Control Board

## San Francisco Bay Region



Gray Davis  
Governor

Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov>  
1515 Clay Street, Suite 1400, Oakland, California 94612  
Phone (510) 622-2300 • FAX (510) 622-2460

CERTIFIED MAIL No. 70993220000146713792  
RETURNED RECEIPT REQUESTED

Date: **MAY 25 2001**  
File No. 2199.9109 (AOF)

Mr. Colby La Place  
Jones-Hamilton Company  
8400 Enterprise Drive  
Newark, CA 94560

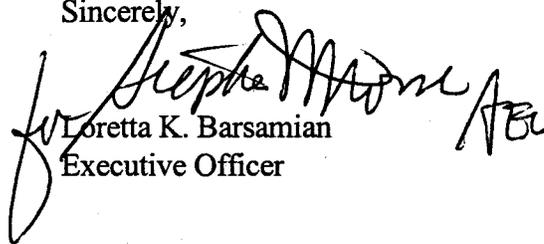
**SUBJECT:** Transmittal of a Certified Copy of Final Site Cleanup Requirements Order No. 00-54

Dear Mr. La Place:

Enclosed please find a certified copy of an Order adopted by the Board on May 22, 2001. The Order approves Jones-Hamilton's remedial action plan and sets groundwater cleanup standards. The Order also requires Jones-Hamilton to implement institutional constraints that prevent or minimize human exposure prior to meeting cleanup standards, submit a five year status report, and submit reports on ongoing groundwater monitoring.

If you have any questions concerning this letter, please contact Ade Fagorala of my staff at (510) 622-2342, or e-mail: [aof@rb2.swrcb.ca.gov](mailto:aof@rb2.swrcb.ca.gov).

Sincerely,

  
Loretta K. Barsamian  
Executive Officer

cc: Mr. Stephen Inn, ACWD, 43885 South Grimmer Boulevard, Fremont, CA 94537 (w. enclosure)  
Mr. Mohinder Sandhu, DTSC, (w. enclosure)