

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

**ORDER No. R2-2015-0026**

**RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER No. 95-131) for:  
HEWLETT-PACKARD COMPANY**

for the property located at:

690 EAST MIDDLEFIELD ROAD  
MOUNTAIN VIEW, SANTA CLARA COUNTY

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

1. **Regional Water Board Orders:** The Regional Water Board adopted site cleanup requirements for the site located at 690 East Middlefield Road, Mountain View (Site) on June 21, 1995 (Order No. 95-131). This order names Hewlett-Packard Company (HP) as the discharger.
2. **Compliance with Board Orders:** Order No. 95-131 required HP to evaluate its interim remedial actions, submit a final remedial action plan, and perform groundwater monitoring. HP completed these tasks.
3. **Basis for Rescission:** Rescission of Order No. 95-131 is appropriate for the reasons discussed below:
  - a. **Pollutant sources are identified and evaluated.** HP made computer components and used volatile organic compounds (VOCs) including trichloroethene (TCE) and tetrachloroethene (PCE) at the Site. The pollutant source was a former 500 gallon underground solvent storage tank (UST) located south of former Building 31.

There appears to be an unknown upgradient source unrelated to HP based on TCE groundwater concentrations along the upgradient boundary of the Site.

The E/M Lubricant – Chemtura (E/M) site is located immediately north and downgradient of the HP Site. E/M had releases of PCE and other VOCs at its site. The E/M site is not proposed for closure at this time due to vapor intrusion mitigation activities associated with E/M's operations. E/M is not related to HP by operation or ownership.

- b. **The Site is adequately characterized.** The Site was adequately characterized through a series of investigations completed between 1983 and 2014 of groundwater, soil, and soil gas. Groundwater investigations and sampling have been conducted since 1983, ultimately using a network of over 50 groundwater monitoring wells to define the lateral and vertical extent of the VOC plume in

groundwater.

Soil investigations were conducted in 1989, 1994, and during site redevelopment in 2012. The 1989 and 1994 investigations detected TCE and PCE in soil in the area of the former UST south of Building 31 and in the northern portion of the Site along the E/M site boundary. A low level of PCE was detected in soil beneath the UST when it was removed in 2012.

Soil gas investigations were conducted in 1987 to characterize the release, in 1994 to support the curtailment of the soil vapor extraction system, in 2007 to assess soil gas underlying the former onsite Building 31, and in 2012 and 2014 to assess soil gas underlying the existing offsite E/M building.

- c. **Exposure pathways, receptors, and potential risks, threats, and other environmental concerns are identified and assessed.** The Site and surrounding area is zoned for commercial use. The Site has been redeveloped with the construction of two new office buildings and paved parking areas. The shallow groundwater beneath the Site is not currently used for drinking water. The VOC plume does not threaten deeper groundwater aquifers, which are used for drinking water, because a regional aquitard separates the shallow and deeper aquifers. Vapor intrusion is discussed in finding 3.e.
- d. **Pollutant sources are remediated to the extent feasible.** The UST was taken out of service and filled in-place with concrete in 1982 and removed in 2012. Site contaminants have been remediated by a combination of soil vapor extraction from 1988 to 1995, groundwater extraction from 1988 to 2001, bioremediation from 2009 to 2011, and natural attenuation. The active cleanup systems were curtailed based on having reached a point of diminishing effectiveness.
- e. **Unacceptable risks to human health, ecological health, and sensitive receptors, considering current and future land and water uses, are mitigated.** Human health risks associated with vapor intrusion of TCE under current commercial land use are below levels of concern based on an evaluation of multiple lines of evidence. Onsite and offsite TCE groundwater concentrations are less than the most recent commercial environmental screening levels (ESL) in the October 16, 2014, Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region, except for one groundwater monitoring well (W13) on the western edge of the mid-plume area that is slightly greater than the ESL. Finding 7 of Order No. 95-131 notes that concentrations in groundwater monitoring well W13 may be from a potential offsite source.

Onsite and offsite TCE soil gas concentrations are less than the commercial ESL, except in the area underlying the existing offsite E/M building and, prior to site redevelopment, in an area near the former onsite UST. A site-specific risk assessment was conducted using data from the onsite UST area, and the calculated risk was below  $1 \times 10^{-6}$ . In 2013, E/M installed a subslab depressurization system under the E/M building to mitigate VOC vapor intrusion associated with its

operations.

Offsite TCE indoor air concentrations are less than the commercial ESL. Sampling of onsite indoor air in the new onsite commercial buildings was not required considering the above multiple lines of evidence.

- f. **Unacceptable threats to groundwater and surface water resources, considering existing and potential beneficial uses, are mitigated.** The shallow groundwater plume is not impacting any surface water bodies or drinking water wells. All onsite and offsite groundwater monitoring wells associated with the Site will be properly destroyed. As discussed in finding 3.c, shallow groundwater beneath the Site is not currently used for drinking water and a regional aquitard separates the shallow, affected aquifer from the deeper, water supply aquifer.
  - g. **Groundwater plume is decreasing.** The remediation has greatly reduced groundwater VOC concentrations. Monitoring results over 26 years indicate that the groundwater plume has been shrinking steadily in size. Onsite TCE concentrations in groundwater have decreased from 24,000 micrograms per liter (ug/L) to 62 ug/L. Offsite TCE concentrations in groundwater have decreased from 240 ug/L to 12 ug/L in the furthest distal monitoring well (W42) located approximately 1,300 downgradient of the northern property boundary.
  - h. **Cleanup levels can be met within a reasonable time frame.** Natural attenuation is expected to reduce remaining Site-related contaminant concentrations in shallow groundwater to below drinking water standards before the shallow groundwater will be used as a source of drinking water.
  - i. **Risk management measures are appropriate and documented and do not require further Regional Water Board oversight.** HP recorded a deed restriction on April 23, 2007, that restricts development and use to industrial, commercial, or office space, prohibits sensitive uses such as residential, and restricts any use of groundwater.
4. **Next Steps Prior to Case Closure:** Monitoring wells owned by the discharger need to be properly closed before this case is closed by the Regional Water Board, so as to eliminate vertical conduits for potential future groundwater contamination.
  5. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy because maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use are and will continue to be met in existing and future supply wells. The extent of contamination from the Site does not reach any water supply wells and is not expected to migrate to any water supply wells at levels above the maximum contaminant level. A deed restriction will ensure no contact with the onsite contaminated groundwater.

6. **CEQA:** This action rescinds an order to enforce the laws and regulations administered by the Regional Water Board. Rescission of the order is not a project as defined in the California Environmental Quality Act (CEQA). There is no possibility that the activity in question may have a significant effect on the environment. (Cal. Code Regs., tit. 14 §§ 15378 and 15061, subd. (b) (3).)
7. **Notification:** The Regional Water Board has notified the discharger and all interested agencies and persons of its intent under Water Code section 13304 to rescind site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

**IT IS HEREBY ORDERED**, pursuant to sections 13304 and 13267 of the Water Code, that Order No. 95-131 is rescinded.

**IT IS FURTHER ORDERED** that the discharger shall properly close all monitoring and extraction wells consistent with applicable local agency requirements, and shall document such closure in a technical report to be submitted to the Regional Water Board within 30 days following the completion of closure activities.

I, Bruce H. Wolfe, 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 June 4, 2015.

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Bruce H. Wolfe  
Executive Officer

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

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