California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program
Order No R1-2019-0044
(Rescinds and Replaces Monitoring and Reporting Program Order R1-2018-0020)
for

HP Inc. doing business in California as HP Computing and Printing Inc.

Hewlett Packard Valley Site
1201 Piner Road
Santa Rosa, California

Case No. 1NSO039
WDID No. 1B86006NSON
Sonoma County

This Monitoring and Reporting Program Order is issued pursuant to California Water Code section 13267 (b) and requires monitoring of groundwater and submission of technical reports. The objective of monitoring conducted under this monitoring program is to provide the Discharger and the Regional Water Board with information concerning groundwater quality and pollutant trends at the site, necessitated by the historic discharge of waste to the subsurface, and to demonstrate compliance with the provisions of General Waste Discharge Requirements Order R1-2009-0105 (WDR). The burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

This Monitoring and Reporting Program rescinds and replaces Monitoring and Reporting Program Order R1-2018-0020.

The failure to furnish any of the required reports, or the submittal of substantially incomplete reports or false information, is a misdemeanor, and may result in additional enforcement actions being taken against the Discharger, including issuance of an Administrative Civil Liability (ACL) Complaint pursuant to Water Code section 13268. Liability may be imposed pursuant to Water Code section 13268 in an amount not to exceed one thousand dollars ($1,000) for each day in which the violation occurs.

Under the authority of California Water Code section 13267, the Discharger named above is required to comply with the following:

MONITORING

Groundwater Monitoring Requirements

1. Prior to purging, the depth to groundwater shall be determined to at least 0.01-foot increments in groundwater monitoring well 62U and in all wells identified in the tables presented as Monitoring Item 4 of this Monitoring and Reporting Program.

2. Except for monitoring wells EX-1, EX-2, and EX-3, groundwater monitoring wells to be sampled shall be purged of at least three casing volumes of water, or until dry, prior to sampling. Monitoring wells shall be allowed to recharge to at least 80% of the initial casing volume prior to sampling. All purge water shall be impounded pending analysis for proper disposal or treated and disposed of pursuant to an authorized wastewater discharge permit. An alternative well purging protocol for specific wells may be used upon the written approval by the Executive Officer.

3. Monitoring Wells EX-1, EX-2, and EX-3 shall be sampled in general accordance with the April 1996 USEPA “Low Flow (Minimal Drawdown) Ground Water Sampling Procedures.”

4. Groundwater samples from the following monitoring wells shall be collected annually, during the first calendar quarter of each year:

    a. Building 1T Treatment Zone Wells: MW-A and MW-B
    b. Building 2T Treatment Zone Wells: BD-1U, EX-1, EX-2, and EX-3

c. Upper Zone Wells: 3U, 5U, 8U, 10U, 11U, 12U, 20U, 21U X, 22U, 28 U, 44U, 47U, 60U, 61U, 64U, 65U, 66U, 67U, 70U, MW 1U, and T-2

d. Lower Zone Wells: 5L ABC, 8L C, 20L A, 29L A, 29L B, 31L A, 31L B, 34L A, 40L A, 40L B, 43L A, 46L A, 48L A, 49L BC, 52U, 60L A, 61L A, 62L A, 64L A, 66L B, 67L A, 68L A, 69L A, 69L B, GT 1, T 2, EW 7AB, and EW 8A

5. Groundwater samples from all sampled monitoring wells shall be analyzed for the volatile organic compounds tetrachloroethene, trichloroethene, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

6. The “Building 1T Treatment Zone” and “Building 2T Treatment Zone” monitoring wells identified in Monitoring Item 4 shall be sampled and analyzed for the biological parameters total organic carbon and the dissolved gases ethane, methane, and ethene. Samples from these wells shall also be field tested for dissolved oxygen, electrical conductivity, ferrous iron, oxidation reduction potential, and pH.

7. Per California Water Code section 13176, all laboratory analyses shall be performed at a California certified laboratory. Analytical methods for sample analyses shall achieve practical quantitation limits that are adequate for evaluating regulatory action levels for each constituent.

Subsurface Vapor Monitoring Requirements

8. Extracted subsurface vapor samples shall be collected annually from the influent manifold to the Building 1T and Building 2T the vapor extraction blowers.

9. The procedures used for vapor sampling shall be consistent with current and subsequent revisions of sampling guidance for active soil gas investigations issued by the California Department of Toxic Substances Control.

10. The vapor samples shall be analyzed for tetrachloroethene, trichloroethene, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

11. The laboratory methods for analysis of sub-surface vapor shall achieve practical quantitation limits sufficiently low to assess the applicable screening levels for each constituent of concern. Analytical results for vapor and air shall be reported in micrograms per cubic meter.

12. Differential pressure between indoor air and sub-slab vapor shall be measured annually during the first calendar quarter at sub-slab monitoring points MP-1, MP-2, MP-3, MP-4, MP-5, MP-6, SS-2, SS-4, SS-5, SS-8, and SS-9.

13. The emergency call-up auto dialers for the Building 1T and Building 2T vapor extraction systems shall be inspected monthly to confirm effective call out operation during a system shutdown and/or the loss of electrical power at the site.

REPORTING

1. If either of the sub-slab depressurization systems is shut down for any reason for more than one week, the Discharger shall immediately notify Regional Water Board staff by telephone and in written communications, and shall submit no later than one week following the initial notification a written contingency action plan proposal to ensure acceptable indoor air quality.

   Annual monitoring reports shall be submitted to the Regional Water Board in accordance with the following schedule:

Sampling Period	Due Date
April 1 through March 31	May 15 for the twelve-month period ending March 31

2. Monitoring data and reports shall be submitted to the Regional Water Board via the State Water Resources Control Board’s Geographic Environmental Information Management System database (GeoTracker) as specified in Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations.

3. Monitoring reports shall be prepared by or under the supervision of a California Professional Civil Engineer or Geologist.

4. The groundwater elevation data calculated from the depth to water measurements shall be referenced to the same elevation datum used for GeoTracker.

5. Each annual monitoring report shall include the following elements:

    a. A narrative description of the operation and maintenance work conducted during the reporting period, and work planned for the next reporting period
    b. An evaluation of the performance of each vapor intrusion mitigation system during the reporting period
    c. A table of mitigation system performance monitoring data for Building 1T and Building 2T sub-slab depressurization systems
    d. A narrative description of the groundwater monitoring work, and any additional investigation or remediation system related work conducted during the reporting period, and work planned for the next reporting period
    e. An accurately scaled site plan showing all sampling points in relation to significant site features
    f. Groundwater elevation maps for each monitored water bearing zone showing elevations plotted on an accurately scaled site plan.
    g. Groundwater contaminant concentrations plotted on an accurately scaled site plan
    h. Field notes and/or sampling logs documenting such activities as well purging, aquifer parameter testing, well recharge prior to sampling
    i. Chain-of-custody documentation
    j. Laboratory reports, including QA/QC data
    k. Tabular results of the depth to groundwater measurements indicating the surveyed elevations of each reference point, depth to groundwater from the reference point, and the actual groundwater elevation
    l. Data tables summarizing all current and historical analytical data for the site constituents of concern for each sampling station
    m. Monitoring reports shall identify the type of instruments that were used for field-measured data and shall include copies of the pre- and post-calibration records or provide other assurance for field data quality. These supporting documents may be included as appendices in the report.
    n. A discussion of the sub-surface vapor analytical results and the assessment of potential vapor intrusion to indoor air, including recommendations for additional investigation or mitigation measures to address any concerns about indoor air quality

Ordered by _____
Matthias St. John
Executive Officer