October 9, 2013

Ms. Beth Bax
Solid Waste Management Department
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90607-4998

WASTE DISCHARGE REQUIREMENTS - PUENTE HILLS LANDFILL, WHITTIER, CALIFORNIA (FILE NO. 57-220, ORDER NO. R4-2013-0156, CI-2294, GEOTRACKER GLOBAL ID. L10009779056)

Dear Ms. Bax:

Reference is made to our letter to you dated September 23, 2013, which transmitted tentative waste discharge requirements (WDRs) for the Puente Hills Landfill. Pursuant to Division 7 of the California Water Code, this Regional Water Quality Control Board (Regional Board) at a public hearing held on October 3, 2013, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. R4-2013-0156 (copy attached) that includes revised WDRs for the subject site. The revised WDRs package will be posted on the Regional Board's website at http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/. Hard copies of the Order may be obtained by contacting the Regional Board staff listed below.

The Regional Board is implementing an Electronic Content Management (ECM, or Paperless Office) system. All reports required under the WDRs shall be submitted to the State Water Resources Control Board GeoTracker database. All correspondences, including self-monitoring reports, shall be submitted to GeoTracker in searchable Portable Document Format (PDF). Groundwater monitoring data, including locations of groundwater monitoring points, shall also be submitted in Electronic Deliverable Format (EDF) to GeoTracker. The GeoTracker Global ID for the subject site is L10009779056.

Should you have any questions, please contact Dr. Enrique Casas at (213) 620-2299 (ecasas@waterboards.ca.gov).

Sincerely,

Wen Yang, Ph.D., CEG
Land Disposal Unit Chief

cc: Ms. Leslie Graves, State Water Resources Control Board
Mr. Martin Perez, CalRecycle

Mr. Peter Jan, CalRecycle
Mr. Reed Sato, Department of Toxic Substance Control
Mr. Ed Pert, Department of Fish and Wildlife
Mr. Mark Stuart, Chief, Department of Water Resources, Southern District
Mr. Patrick Hotra, South Coast Air Quality Management District
Mr. David Pelser, Director of Public Works City of Whittier
Mr. Anthony C. Zampiello, Main San Gabriel Basin Watermaster
Mr. Timothy C. Jochem, Upper San Gabriel Valley Municipal Water District
Mr. Mike Mohajer, County of Los Angeles Solid Waste Facilities Hearing Board
Mr. Bahman Hajialiakbar, Los Angeles Co. Dept. of Public Works, Env. Division
Mr. Charles Tripp, City of Long Beach Southeast Resource Recovery Facility
Mr. Hal Ledford, City of La Puente
Mr. Richard W. Hansen, Three Valleys Municipal Water District
Mr. Robb Whitaker, Water Replenishment District of Southern California
Mr. Rich Nagel, West Basin Municipal Water District
Mr. Randy Schoellerman, San Gabriel Basin Water Quality Authority
Mr. John D. Bellas, City of Industry
Mr. Steve Johnson, Stetson Engineers, Inc.
Mr. John Eckman, Hacienda Heights Improve. Association
Ms. Donna Steinmetz
Ms. Ruth Wash
Mr. John Shubin
Mr. Jeff Yann
Mr. Duncan McKee
Mr. Bob Issacson
Mr. Michael Hughes
Ms. Rebecca Overmyer-Velazquez
Ms. Marlinda Glasman

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4- 2013-0156

REVISED WASTE DISCHARGE REQUIREMENTS
FOR
CLOSURE, POSTCLOSURE MAINTENANCE, AND
CORRECTIVE ACTION PROGRAM

COUNTY SANITATION DISTRICT OF LOS ANGELES COUNTY
(PUENTE HILLS LANDFILL)
(FILE NO. 57-220)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

BACKGROUND

1. The County Sanitation Districts of Los Angeles County (Discharger) owns and operates the Puente Hills Landfill (Landfill), a 1,365-acre Class III solid waste disposal facility located at 2800 Workman Mill Road, in an unincorporated area of Los Angeles County, California (Figure 1). The Landfill is operated pursuant to requirements in Regional Board Order No. R4-2006-0043.

2. The Discharger acquired the original 1,214-acre Landfill site in June 1970. At the time the land was acquired, 500 acres were being leased to the San Jose Development Company for the purposes of operating a solid waste disposal site. This disposal site was known as the San Gabriel Valley Dump (SGVD), which operated at this location as early as 1957. As part of the sale agreement, the Discharger took over the operation of the SGVD and renamed the Landfill. The Discharger continued operation of the Landfill under existing Zone Exemption Case No. 3152-(1), granted by the County of Los Angeles Regional Planning Commission on November 19, 1957. In May 1981, the Discharger acquired an additional 151 acres of land adjacent to the Landfill, immediately south of the Pomona Freeway, bringing the total area of the Landfill to its present 1,365 acres.

3. On January 31, 1958, Industrial Waste Permit No. 1918 was issued to the SGVD by the Los Angeles County Engineer, and approved by the Regional Board on April 10, 1958.

4. On April 23, 1959, the Regional Board adopted Resolution No. 59-34, prescribing waste discharge requirements (WDRs) for the disposal of non-hazardous solid and certain “semi-liquid” wastes, and inert wastes at the SGVD.

5. On July 27, 1972, the Regional Board adopted Monitoring and Reporting Program (MRP) No. CI-2294 for the SGVD, thereby amending Resolution No. 59-34.

6. On April 12, 1983, the Regional Board revised MRP No. CI-2294 to include updated monitoring and reporting procedures, including dewatered sewage sludge sampling, analyses, and reporting.

7. On November 1, 1983, the Los Angeles County Department of Regional Planning issued Conditional Use Permit (CUP) No. 2235-(1) allowing for the expansion of the Landfill waste management unit footprint beyond the area provided in Zone Exemption Case No. 3152-(1). This CUP limited waste disposal to approximately 700 of the Landfill's 1,365 acres, and allowed for disposal operations for a ten-year period that would expire on November 1, 1993.

8. On April 28, 1987, the Discharger entered into an agreement with the County of Los Angeles Department of Parks and Recreation that designated as open space in perpetuity those portions of the Landfill on which solid waste fill had been or would be placed.

9. A solid waste assessment test (SWAT) analysis, consistent with the requirements of section 13273 of the California Water Code (CWC), was conducted in 1987 for the Landfill and was approved by the Regional Board Executive Officer (Executive Officer), on June 11, 1990. Results from the SWAT investigation indicated the presence of low levels of volatile organic compounds (VOCs) in the Main Canyon area of the Landfill consistent with concentrations resulting from contact with landfill gas.

10. On April 23, 1989, the Regional Board adopted Order No. 89-032 authorizing expansion into the Canyon 9 area (Figure 2), amending the Landfill's WDRs, and rescinding Resolution No. 59-34. The proposed design and engineering features of the Canyon 9 area included subdrain systems, a compacted clay liner system, leachate collection and removal system (LCRS), as well as unsaturated zone monitoring systems, a subsurface barrier, and groundwater monitoring systems.

11. Regional Board Order No. 89-032 authorized interim disposal of incinerator ash at the Landfill from Commerce Refuse-To-Energy Facility (CREF) and Southeast Resource Recovery Facility (SERRF) until March 27, 1990. Order No. 89-032 allowed the Discharger and City of Long Beach time to propose and implement treatment procedures that would modify the incinerator ash to be in compliance with Regional Board requirements.

12. On March 26, 1990, the Regional Board adopted Order No. 90-046 to extend the deadline for interim disposal of incinerator ash at the Landfill until March 25, 1991. Regional Board Order No. 90-046 rescinded Order No. 89-032.

13. On March 4, 1991, the Regional Board adopted Order No. 91-035, which amended Order No. 90-046 with regard to requirements for disposal of incinerator ash at the Landfill and extended the deadline for interim disposal of incinerator ash at the Landfill until June 30, 1992.

14. On January 23, 1992, the State Water Resources Control Board (State Board) adopted Order No. WQ 92-02 responding to a petition by state Senator Art Torres to review Order No. 91-035. In summary, Order No. WQ 92-02 reaffirmed the prohibition against the discharge of untreated ash at the Landfill after September 30, 1992, required the Regional Board to issue a cease and desist order requiring compliance if the September 30, 1992 time schedule was not met, expanded on Order No. 91-035 to limit the disposal of untreated incinerator ash to only the lined Canyon 9 area of the Landfill, and required that untreated ash disposal be segregated to the maximum extent possible.

15. On November 25, 1992, the Los Angeles County Sanitation District No. 2 Board of Directors certified a final Environmental Impact Report (EIR, SCH No. 91121070) in accordance with the California Environmental Quality Act (CEQA) requirements, and approved a 100-acre expansion of the waste management facility into the Eastern Canyons area of the Landfill. The EIR determined that expansion of the Landfill would have potential adverse groundwater impacts that would be mitigated by engineered features of the Landfill and by the provisions in the Landfill's WDRs.

16. On July 20, 1993, the Los Angeles County Board of Supervisors issued CUP No. 92-250-(4) to the Discharger which provided for the lateral and vertical expansion of the waste management facility for ten years, or upon completion of the approved fill design, whichever came earlier. The approved expansion allowed for the placement of an additional approximately 37 million tons of refuse over the existing 530-acre waste management facility and an expanded 100-acre portion of the Eastern Canyons area (Figure 2).

17. In September 1993, the EIR (see Finding No. 15, above) was challenged in Los Angeles County Superior Court in two separate lawsuits brought by the Hacienda-La Puente School District, et al., and RR&C Development Corporation. During the litigation relating to the EIR challenge, the Los Angeles County Superior Court issued a ruling on October 5, 1993, allowing the continued operation of the Landfill in the area provided under CUP No. 2235-(1) until the litigation was resolved. Ultimately, the Los Angeles County Superior Court found that the final EIR was legally adequate with the exception that additional information about groundwater quality was required. Accordingly, the court entered a judgment requiring the Discharger to prepare a supplement to the final EIR addressing groundwater quality issues.

18. On November 1, 1993 the Regional Board adopted Order No. 93-070, prescribing requirements for the expansion of waste management facilities to the Eastern Canyons area of the Landfill. The monitoring and reporting program for the expansion was implemented under MRP No. CI-2294. The proposed design and features of the Eastern Canyons area included a subdrain and groundwater collection system, a composite liner system, a LCRS, subsurface barriers and extraction systems, and groundwater and unsaturated zone monitoring systems. These systems would be constructed to the prescriptive or equivalent performance standards of emerging federal regulations for municipal solid waste (MSW) landfills, commonly referred to as "Subtitle D" regulations.

19. In response to the order from the Los Angeles County Superior Court (see Finding No. 17, above), a supplemental EIR was released by the Discharger on December 3, 1993, for public and agency review. Regional Board staff reviewed the supplement and made minor comments. The Regional Board found that the supplement contained a detailed analysis of groundwater data, already in the Regional Board's files, which the Regional Board had considered in issuing Order No. 93-070. The supplement was certified by the Discharger's Board of Directors on March 23, 1994. The Discharger concluded in the supplement that the Landfill project, as mitigated, would not have a significant effect on groundwater quality. On June 20, 1994, the Los Angeles County Superior Court found that the supplemental EIR complied with CEQA and previous rulings of the Court. Upon resolution of the litigation, on August 30, 1994, the Los Angeles County Board of Supervisors reissued CUP No. 92-250-(4).

20. On September 26, 1994, the Regional Board adopted Order No. 94-103 to amend the findings in Order No. 93-070 with regard to the legal challenge to the Eastern Canyons expansion. Specifically, Order No. 94-103 found that reopening of Order No. 93-070 was not warranted.

21. By March 7, 1995, Bonnie Heimbecher, Robert B. Isaacson, Virgil J. Jose, Carol Mauceri, Jeffrey K. Yann and RR&C Development Company had completed a petition to the State Board seeking review of Regional Board Order No. 94-103. Among other contentions, the petitioners contended that the Regional Board had not adequately responded to evidence of releases from the Landfill. In response, the State Board adopted Order No. DWQ 96-10 on May 29, 1996, required the Discharger to implement an adequate corrective action program (CAP) at the Landfill in compliance with Regional Board Order No. 90-046.

22. On June 30, 1999, the Regional Board adopted Order No. 99-059, implementing a CAP for the Main Canyon area of the Landfill.

23. On January 23, 2002, the Discharger's Board of Directors, as lead agency under CEQA, certified a final EIR (SCH No. 2000041066) for the continued operation of the Landfill. Meanwhile, the Discharger applied for a CUP with the County Department of Regional Planning on February 14, 2002. The CUP application provides for the acceptance of approximately 38 million tons of refuse beyond the expiration of CUP No. 92-250-(4) on October 31, 2003, at a continued disposal tonnage level of 72,000 tons per week or 13,200 tons per day.

24. On December 18, 2002, the Los Angeles County Regional Planning Commission approved CUP 02-027-(4) that specifies that the total design capacity for the Landfill, including refuse and daily cover is 68.8 million cubic yards. The remaining Landfill life is constrained by CUP 02-027-(4) to October 31, 2013.

25. On January 29, 2006, the Regional Board adopted Order R4-2006-0007 as Addendum No. 1 to Order No. 93-062 establishing requirements for the acceptance of treated wood waste (TWW) at MSW landfills throughout the Region, including the Landfill. Order R4-2006-0007 provides that, pursuant to California Health and Safety Code (HSC) sections 25143.1.5 and 25150.7, as amended in 2004, TWW can be discharged to a composite lined portion of a MSW landfill.

26. On March 6, 2008, the Regional Board adopted Order R4-2008-0013 that included WDRs for the disposal of solid waste generated from wildfires at MSW landfills in the Region including the Landfill. Order R4-2008-0013 permitted the discharge of solid waste from wildfires into a composite lined portion of MSW landfills.

27. In June 2008, the Discharger submitted to the Regional Board a Joint Technical Document (JTD) pursuant to title 27 of the California Code of Regulations (27 CCR), to apply for regulatory requirements of both a solid waste facilities permit from the California Department of Resources Recycling and Recovery (CalRecycle) and WDRs from the Regional Board for continued operation of the Landfill. The proposed design and features of the continued expansion in the Eastern Canyons area include expanded groundwater collection systems, composite liner systems, and LCRSs. Subsurface barriers and extraction systems, and

groundwater and unsaturated zone monitoring systems already exist as part of the initial Eastern Canyons area expansion.

28. On March 3, 2011, the Regional Board adopted Order No. R4-2011-0052 to establish requirements for the disposal or use onsite of contaminated soils at active MSW landfills in the Los Angeles Region, including the Landfill. Order No. R4-2011-0052 requires specific procedures for acceptance, disposal, and use onsite of contaminated soils and related wastes, and an expanded storm water pollution prevention plan (SWPPP) to protect the quality of the waters of the State.

29. In December 2011, the Discharger submitted a Final Closure and Postclosure Maintenance Plan for the Landfill. The Final Closure and Postclosure Maintenance Plan for the Landfill was approved by Regional Board staff on December 9, 2011.

ENVIRONMENTAL SETTING

30. The Landfill is located at the northwestern tip of the western Puente Hills. The Puente Hills are bounded on the east and north by the San Jose Creek floodplain, on the north and northwest by the San Gabriel River floodplain, and on the southwest by inter-fingering alluvial fans formed from west to southwest flowing intermittent creeks. The area can generally be characterized as unconsolidated materials at lower elevations surrounding areas of elevated marine sedimentary bedrock.

31. The Landfill is underlain by three Miocene-aged bedrock formations (Puente, Pico and Repetto) and Quarternary to Recent-aged surficial deposits. The bedrock formations, each averaging approximately 1,100 feet in thickness, consist of interbedded conglomerates, sandstones, siltstones, and shales. Canyon waters, where present, move at slow rates through the canyon alluvium and in weathered bedrock, creating low-permeability perched and semi-perched zones. The surficial units are typically thirty feet in thickness, or less, and act as semiperched aquifers for canyon waters, which percolate down-slope. Artificial engineered fill is present both as veneers and massive fill deposits.

32. On June 13, 1994, this Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan (including its subsequent amendments) designates beneficial uses and water quality objectives for the area of the Landfill. The requirements in this Order, as they are met, are in conformance with the goals of the Basin Plan.

33. The Landfill is located within the eastern part of the Main San Gabriel River Groundwater Basin, which is part of the San Gabriel Valley Groundwater Basins (Figure 3). The Basin Plan identifies beneficial uses for both surface and groundwaters in the Main San Gabriel River Basin as municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply. The Landfill does not directly overlie a groundwater basin, however perched and semi-perched canyon waters potentially drain into the Main San Gabriel River Basin.

34. The Landfill is located within the Main San Gabriel Hydrologic Subarea of the Los Angeles – San Gabriel Hydrologic Unit. The Basin Plan identifies potential beneficial uses for municipal

and domestic supply and water contact recreation, and intermittent beneficial uses for groundwater recharge, non-contact recreation, and warm freshwater habitat. The beneficial uses of surface waters in the unnamed canyons (see Finding No. 30 above) of the Landfill are not individually identified in the Basin Plan, however application of the tributary rule requires the beneficial uses of any specifically identified water body apply to its tributary streams. The requirements in this Order, as they are met, are in conformance with beneficial uses identified in the Basin Plan for canyons/streams at the Landfill that are tributary to Main San Gabriel Hydrologic Subarea of the Los Angeles – San Gabriel Hydrologic Unit.

35. There are no known active faults within 200 feet of the Landfill. Active faults are defined as Holocene epoch faults that have exhibited surface movement in the last 11,000 years. The nearest active fault, a northwestern segment of the Whittier Fault Zone, is approximately 2.5 miles from the Landfill at its closest approach. Near the northwestern end of the fault zone are two branches, the Workman Hill and Whittier Heights Faults, which are not known to be active. The Whittier Heights fault passes through the center of the Eastern Canyon expansion of the Landfill and shows evidence that it's most recent activity was during late Quaternary time (3 million years ago).

36. Results of a seismic design investigation performed by the Discharger's consultant (GeoSyntec Consultants, 2002) indicate that the seismic sources that govern seismicity at the Landfill are either a moment magnitude 6.8 event on the Whittier Fault for a "near-field" maximum credible earthquake (MCE) design event, or a moment magnitude 7.8 event on the San Andreas Fault for a "far-field" MCE design event. A moment magnitude 6.8 event on the Whittier Fault located as close as 2.5 miles from the Landfill could generate a free-field bedrock peak horizontal ground acceleration (PHGA) of 0.60 g and have a duration of shaking of 11.7 seconds. For the San Andreas Fault, a moment magnitude 7.8 event located as close as 30.3 miles from the Landfill could generate a free-field bedrock PHGA of 0.12 g but have a duration of shaking of 30.9 seconds. The MCE design event exceeds the maximum probable earthquake (MPE) design criteria that is the minimum requirement contained in 27 CCR.

37. Seismic Hazard Zone Maps for the El Monte, Whittier, Baldwin Park, and La Habra 7.5 minute quadrangles (released March 25, 1999, March 25, 1999, March 25, 1999, and April 15, 1998, respectively) produced by the California Division of Mines and Geology Seismic Hazards Mapping Program (incorporated herein by reference) indicate that refuse-fill areas at the Landfill are located outside identified liquefaction zones. The hazard zone maps also identify areas where the previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions, indicate a potential for permanent ground displacements such that mitigation is required.

38. The Landfill is generally bounded by the City of Industry to the north, the unincorporated community of Hacienda Heights to the east, and the City of Whittier to the south, and unincorporated Los Angeles County to the west. The San Gabriel River Freeway and San Gabriel River physically separate the Landfill from the cities of South El Monte and Pico Rivera to the north and west, respectively. The cities of South El Monte, Pico Rivera and Whittier are predominately residential and commercial/industrial communities. The City of Industry general plan has only land use designations of commercial and industrial. The land use element of the Hacienda Heights community general plan includes policies designed to retain the single-family residential community character of the area and maintain the hillsides in a natural state.

Other major surrounding land uses in area of the Landfill are Rio Hondo College, Whittier Narrows Recreation Area, Rose Hills Memorial Park, and open space in the Puente Hills.

39. The Landfill is located within the South Coast Air Basin which is comprised of a coastal plain with broad valleys and low hills whose climate is dominated by the semi-permanent, high-pressure climatic conditions of the eastern Pacific zone. The area is characterized by warm, dry summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes and moderate humidity. Rainfall data recorded using an on-site rain gauge between 1988 through 2001 yielded an average annual precipitation of 17.6 inches with 88% of the rainfall occurring between November and March and little rainfall during summer months. Evaporation data for the region, recorded between October 1969 and September 2001 at the San Dimas Dam weather monitoring station by the Los Angeles County Department of Public Works Water Resources Division indicates a mean annual evaporation rate of approximately 52.0 inches.

40. According to the National Flood Insurance Program, administered by the Federal Emergency Management Agency, the Landfill is in an area classified as Zone C, designating the absence of a flood hazard.

ENVIRONMENTAL CONTROL SYSTEMS

41. The proposed engineered containment features for closure and postclosure maintenance of the Landfill, as described in the JTD, will be constructed to the prescriptive standards of 27 CCR and/or 40 CFR or equivalent performance standards. This Order specifies that final design and construction methods for proposed engineered systems be reviewed and approved by the Executive Officer prior to installation and use.

42. The Discharger has constructed five subsurface barrier systems at the Landfill (Figure 4), using approved excavation and construction methods. The systems include upgradient groundwater extraction systems, a low permeability cut-off wall or barrier having a minimum thickness of twelve inches, and downgradient monitoring wells (Figure 4). The low permeability cut-off walls for Barriers Nos. 1 through 5 are cement-bentonite (slurry trench) barriers.

43. The Discharger has constructed low permeability liner systems under all expansion areas constructed after the approval of CUP No. 2235-(1) that generally consist of (from bottom to top), a subdrain system, a clay liner, a synthetic liner, a blanket LCRS, and a protective layer of soil.

44. The Landfill groundwater monitoring program incorporates monitoring wells that are sidegradient, and/or downgradient of the Landfill (Figure 4). Groundwater monitoring at the Landfill has been conducted since 1983.

45. Direct monitoring of background groundwater quality in the Main Canyon area was not completed because landfilling operations, which commenced in 1957, preceded groundwater monitoring in this area. The Discharger has established ranges of background groundwater quality at the Landfill, principally by monitoring groundwater wells in the Canyon 9 and Eastern Canyons areas prior to commencing landfilling operations in these areas [Puente Hills Landfill – Eastern Canyons Groundwater Quality Detection Monitoring Program, February 1998].

These investigations indicate that background monitoring points for inter-well analyses methods are problematic and that intra-well water quality validation is needed at the Landfill.

46. In 1991, the Discharger initiated a program to demonstrate that existing intermediate cover was equivalent to an alternative final cover in compliance with chapter 15, title 23 of the California Code of Regulations (now 27 CCR) requirements. The Discharger completed modeling and field investigations on approximately 180 acres of the then existing side-slope intermediate cover in the Main Canyon and Canyon 9 areas of the Landfill (Figure 2) to demonstrate equivalent performance to a prescriptive final cover system. In May 1993, Regional Board staff approved the Discharger's demonstration of the alternative final cover for these existing side-slopes. The alternative final cover is a water balance design that controls percolation by balancing the water storage capacity of unsaturated finer-textured soils and the ability of plants and the atmosphere to extract water stored in the soil.

47. In 2002, the Discharger initiated a characterization investigation and unsaturated flow modeling analysis to demonstrate that an additional 94 acres of intermediate side slope cover offer equivalent performance characteristics to a prescriptive final cover system. In 2007, the Discharger completed a long-term field investigation to monitor moisture movement in the intermediate cover under various soil conditions, water application rates, and vegetative conditions to confirm moisture modeling results for potential approval as an alternative final cover. In September 2007, Regional Board staff approved the Discharger's demonstration of the alternative water balance final cover for these existing side-slopes.

48. In 2011, the Discharger submitted the reports *CQA Testing Protocols and Implementation Plan, Characterization and Construction Quality Assurance Services for Side Slope Final Cover*, *Characterization of the Existing Side Slope Final Cover*, and *Hydrologic Modeling of Alternative Final Cover Performance, Top Deck Final Cover* to the Regional Board. The reports presented the geotechnical and hydraulic characteristics for approximately 72 acres of intermediate cover constructed between 2002 and 2011 on side slopes areas of the Landfill and proposed construction details and construction quality assurance methods for final cover systems over the remaining side slope areas and top deck areas of the Landfill. On May 16, 2011, Regional Board staff approved the 72-acre constructed intermediate cover as final cover. Regional Board staff also approved the proposed top deck construction methods and the soil source, conditioned on the Discharger continuing to control the amount of irrigation water applied to the vegetative cover during the operation, closure, and postclosure maintenance of the Landfill and that, because the final cover design modeled for the top deck area of the Landfill is consistent with an open space end use, any land use other than open space for the top deck area during the postclosure maintenance period must be approved by the Regional Board Executive Officer prior to implementation.

49. Currently, the Landfill has approximately 346 acres of side slope final cover that has been designed/constructed as a water balance final cover. The Landfill top deck final cover has yet to be constructed.

50. Landfill gas migration monitoring probes have been installed along the boundary of the Landfill (Figure 5). These probes are currently monitored on a monthly basis pursuant to requirements of CalRecycle and the local enforcement agency (LEA), the Los Angeles County Department of Health Services, Solid Waste Program.

51. Landfill gas is collected through extraction wells and gravel-lined trenches, designed in accordance with 27 CCR requirements. The gas is combusted to reduce odor at the Puente Hills Energy Recovery from Gas Facility (PERG) facility located on-site and operated by the Discharger. Electricity is generated from this combusted gas and the net electrical power is sold to the local utility company, Southern California Edison. Process wastewater from PERG is discharged to the sanitary sewer system under Industrial Waste Permit No. 20430 issued by the Discharger.

52. The Discharger uses recycled water from the San Jose Creek Water Reclamation Plant for irrigation and dust control purposes at the Landfill. These uses are in conformance with the goals of the Basin Plan and State statutes and regulations pertaining to the use of recycled water in California that can be found in the CWC, CCR, and the HSC. State policy promotes the use of recycled water to the maximum extent in order to supplement existing surface and groundwater supplies to help meet water needs (CWC section 13510 to 13512).

REGULATORY REQUIREMENTS

53. The USEPA under title 40 of the code of federal regulations (40 CFR) section 257 and section 258 (Subtitle D) revised existing regulations for MSW disposal facilities in response to the 1984 Hazardous and Solid Waste Amendments of Resource Conservation and Recovery Act and added new detailed requirements addressing the issues of location restriction, facility operation and design criteria, groundwater monitoring and corrective action, closure and postclosure maintenance, and financial assurance. The USEPA delegated the responsibility for implementing these regulations to states with a fully approved landfill regulatory program. As responsible agencies for an approved state, the State Board and the Regional Board adopted the federal Subtitle D regulatory requirements (State Board Resolution No. 93-62 and Regional Board Order No. 93-062, respectively). Regional Board Order No. 93-062 was adopted on September 27, 1993.

54. Pursuant to section 402(p) of the federal Clean Water Act (CWA) and 40 CFR section 122, section 123, and section 124 the State Board adopted Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, "*Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*" (general Industrial Stormwater Permit). The Landfill was enrolled on March 27, 1992 under the general Industrial Permit (WDID No. 419I006191).

55. State Water Resources Control Board (State Water Board) Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality Waters in California", also called the "anti-degradation policy") (Resolution 68-16) requires the Regional Board, in regulating the discharge of waste, to maintain high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Board's policies (e.g., quality that exceeds water quality objectives). The Regional Board finds that the discharge, as allowed in these waste discharge requirements, is consistent with Resolution No. 68-16 since this Order (1) requires compliance with 27 CCR Division 2 regarding waste management units, which is considered the use of best practicable treatment and control, (2) requires implementation of monitoring and reporting programs as required by

27 CCR Division 2 to assure protection of water quality in compliance; and (3) does not allow discharges of waste to degrade water quality. If the discharge causes or threatens to cause degradation of water quality, then the Discharger will be required to take appropriate corrective action.

CORRECTIVE ACTION PROGRAM

56. VOCs including tetrachloroethylene (PCE), trichloroethylene (TCE), vinyl chloride, cis-1,2-dichloroethylene (cis 1,2-DCE), 1,2-dichloroethane (1,2-DCA), 1,4-dichlorobenzene (1,4-DCB), and 1,1-dichloroethane (1,1-DCA), have been detected in some of subsurface Barrier Nos. 1 and 3 downgradient groundwater monitoring wells in the unlined Main Canyon area of the Landfill. The VOCs have been detected in concentrations from below drinking water standards (maximum contaminant levels promulgated by the Department of Public Health to eight times greater than drinking water standards. The Discharger has instituted a CAP in accordance with requirements of Order No. 90-046.

57. In March 1995, following confirmation of a release, the Discharger completed a scan of the constituents listed in appendix II of 40 CFR section 258 (Appendix II) in accordance with 40 CFR section 258.55 requirements. The testing results for the Appendix II constituents scan indicated that there were no constituents of concern (COCs) that had not previously been identified in the VOCs release in the Barrier Nos. 1 and 3 areas of the Landfill.

58. The Discharger submitted a final evaluation monitoring program (EMP) report to the Regional Board on September 30, 1998, based on numerous subsurface investigations completed by the Discharger between 1994 through 1998 that delineated the full lateral and vertical extent of the VOCs releases near subsurface Barrier Nos. 1 and 3. During the EMP investigation, the Discharger installed monitoring wells M04A, M04B, M11A, M05A, RMW6 and M10B (Barrier No. 1) and M31A, R32B, M33A and R34B (Barrier 3) as groundwater monitoring points at the Landfill boundary directly in the path of contaminant migration, pursuant to 40 CFR section 258.55(g)(1)(ii) and installed assessment wells EMP1, EMP2, EMP3, EMP4, EMP5 and EMP6 offsite to delineate the three-dimensional nature and extent of the release, pursuant to 40 CFR section 258.55(g)(1)(i) and 27 CCR section 20425(b). The EMP was conducted in accordance with requirements in 27 CCR section 20425 and 40 CFR section 258.55 for an Assessment Monitoring Program (AMP). The EMP report was approved by Regional Board staff on October 7, 1998.

59. The Discharger prepared a final engineering feasibility study (EFS), based upon the findings in the final EMP, exploring eighteen corrective action technologies to mitigate the VOCs at subsurface Barrier Nos. 1 and 3. The EFS was conducted in accordance with 27 CCR section 20425 and 40 CFR section 258.56 and section 258.57 for an Assessment of Corrective Measures (ACM) and Selection of Remedy (SOR).

60. Based upon the results of the EFS, the Discharger submitted a Report of Waste Discharge (ROWD) on January 11, 1999, which proposed a CAP that continues source control through operation of existing subsurface Barrier Nos. 1 and 3 groundwater extraction systems, enhanced landfill gas control, and allows for natural attenuation to dissipate VOCs in off-site areas. Groundwater monitoring continues to be used to measure the effectiveness of the CAP.

61. Pursuant to 27 CCR, section 21730(c), the Discharger presented the findings of the final EMP report, the EFS, and the proposed CAP at a public workshop held on December 17, 1998. As discussed in Finding No. 22, CAP WDRs for the Landfill were adopted by the Regional Board on June 30, 1999.

62. As part of the CAP, to control the downgradient migration of contaminants in groundwater, the Discharger has conducted groundwater containment pumping at subsurface Barriers No. 1 and 3 since before 1999. Contaminated groundwater from the Barrier No. 1 and 3 areas is discharged to the sanitary sewer system pursuant to industrial waste discharge requirements (Industrial Waste Permit Nos. 10524 or 20430 issued by the Discharger).

63. Since landfill gas is likely the principal source of the release from the Main Canyon area of the Landfill, the Discharger has installed/improved landfill gas collection and extraction systems as interim corrective action measures (interim CAMs). Operation of enhanced landfill gas collection and extraction systems in the Main Canyon area commenced in approximately January 2000.

64. The Discharger continues to notify all persons who own the land or reside on the land that directly overlies any part of the contaminant plume about the status of contaminants that have migrated off-site pursuant to 40 CFR section 258.55(g)(1)(iii) requirements.

65. This Order continues to require a CAP for the entire Landfill while implementing corrective measures for known releases meeting applicable state and federal requirements. This approach eliminates needless complexity associated with applying concurrent programs (i.e., running unaffected portions of the Landfill under a detection monitoring program (DMP) and the portions affected by the release under either an EMP or a CAP, or both). The Regional Board chooses to implement this approach by documenting and responding to the compliance status of each monitoring parameter (Mpar) individually at each compliance well separately (i.e., the Discharger will track the compliance status of each such “well/MPar pair” separately).

66. Under this Order, at any given time, each well/MPar pair will be in one of two compliance status conditions. Prior to the MPar’s exhibiting a measurably significant landfill related exceedance at a given well, that well/MPar pair will be in “detection mode” and monitoring will involve statistical or non-statistical data analysis designed to detect a Landfill-related increase at that well for that MPar. Once a well/MPar pair exhibits a measurably significant increase, it will change to “tracking mode” and monitoring will involve concentration-versus-time plotting until directed otherwise by the Executive Officer to document changes in the release. Once in tracking mode, a well/MPar pair can return to detection mode only upon inception of a proof period to demonstrate either the increase is not landfill related, or the successful completion of corrective action.

67. This Order minimizes the occurrence of false-positive indications in two ways:

    a. it includes a non-statistical data analysis method, meeting 27 CCR section 20415(e)(8-9) requirements, that collectively analyzes all the Mpars, at a given well, whose background data exceeds its respective method detection limit (MDL) no more than 10% of the time; and

b. all statistical and non-statistical data analysis methods used on well/MPars in detection mode data analyses under this Order include a discrete retest as described under 27 CCR section 20415(e)(8)(E).

68. To assure compliance with the requirements and considerations under 40 CFR section 258.55 through section 258.57 and 27 CCR section 20425 in the simplest way possible, this Order:

    a. requires statistical or non-statistical data analysis, at any given compliance well, only for those MPars that are in detection mode at that well;

    b. requires concentration-versus-time plotting, at any given compliance well, for all MPars that are in tracking mode at that well;

    c. uses a periodic (five-year) presence/absence screening of all COCs, rather than statistical/non-statistical data analysis, at all appropriate wells to keep the MPar list updated to include all COCs that are detectable in groundwater;

    d. uses annual leachate sampling (available only from lined areas), for all Appendix II constituents, to keep the COC list updated to include all Appendix II constituents that could be released from lined areas of the Landfill, and

    e. implements an automatic update procedure to assure that the MPar and COC lists remain current.

69. Since 1994, the Discharger has been monitoring leachate annually from the LCRSs for the Canyon 9 and/or the Eastern Canyons areas for Appendix II constituents, and re-testing for newly discovered ones, in order to create a COC list containing those Appendix II constituents that could be released from these areas of the Landfill. These WDRs narrow the scope of the COC list for the areas downgradient of Canyon 9 and the Eastern Canyons to include, from Appendix II, only those constituents that have been detected and verified in leachate. By monitoring for detectable COCs, any foreseeable breakdown products, and any constituents required by the Executive Officer, the Discharger will be monitoring for all Appendix II constituents that could be released from the Canyon 9 and Eastern Canyon areas of the Landfill. This is the manner in which this Order meets the requirements of 40 CFR section 258.55(b). Because the Main Canyon area is unlined, leachate monitoring is not possible. Thus, for groundwater monitoring wells downgradient of the Main Canyon area, the COC list includes all Appendix II constituents.

70. Given that the VOCs in the federal monitoring parameter list, Appendix I to 40 CFR section 258 (Appendix I), are all Appendix II constituents, leachate sampling from the LCRSs for the Canyon 9 and Eastern Canyons areas also serves as a basis for narrowing the scope of VOCs which the Discharger must monitor in these areas to include only those Appendix I constituents that have ever been detected in leachate, at trace levels or above, and verified by retest. This is the manner in which this order implements 40 CFR section 258.54(a)(1).

71. In accordance with Section 22220 of 27 CCR, the Discharger maintains assurance of financial responsibility for initiating and completing corrective action for all known or reasonably

foreseeable releases from the Landfill (27 CCR 22220 et seq.). On July 5, 2006, the Discharger submitted a cost estimate of $1,249,804 for financial assurance for all known or reasonably foreseeable releases from the Landfill to the Regional Board. The corrective action cost estimate was approved by the Regional Board Executive Officer on April 27, 2007

ADMINISTRATIVE

72. The State Water Resources Control Board (State Water Board) has adopted regulations that require the electronic submittal of information (ESI) for Groundwater Cleanup programs (section 3890 et seq. of title 23 of the California Code of Regulation and division 3 of 27 CCR). Starting in January 1, 2005, electronic submittal of these items and a portable data format (PDF) copy of full reports was extended to include all State Water Board groundwater cleanup programs, including the Land Disposal Program. The requirements contained in this Order, as they are met, conform to ESI reporting regulations.

73. CWC section 13263 provides that all WDRs shall be reviewed periodically and, upon such review, may be revised by the Regional Board to comply with changing state or federal laws, regulations, policies, or guidelines. WDRs for the Landfill are being revised to include updated findings for closure and postclosure maintenance, as well as to update water quality monitoring programs including a CAP.

74. Revision of WDRs for the Landfill constitutes an existing project as defined in section 15301, chapter 3, title 14 of the CCR and is therefore exempt from the provisions of the CEQA (Public Resources Code section 21000 et seq.).

75. The Regional Board has notified interested agencies and all known interested parties of its intent to issue requirements for closure, postclosure maintenance, and CAP for the Landfill. The Regional Board in a public meeting heard and considered all comments pertaining to closure, postclosure maintenance, and CAP for the Landfill.

76. Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with California Water Code (CWC) section 13320 and 23CCR section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., thirty days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that the Discharger shall comply with the following requirements pertaining to the Landfill:

A. SPECIFICATIONS

1. Waste disposal activities at the Landfill will cease on October 31, 2013. No MSW or any other wastes may be received at the Landfill for the purpose of disposal thereafter.

2. Inert soil, concrete, and asphalt materials that are used for the construction or repair of the final cover, access roads, or other facilities at the site may be imported to the site, provided that the source, volume, and usage of such imported materials are reported in the corresponding semi-annual report for the Landfill.

3. The Discharger shall remove any unacceptable wastes that arrive at the site in violation of the requirements in this Order and discharge such removed waste at a classified waste management unit.

B. PROHIBITIONS

1. Discharges of waste to land as a result of inadequate closure and postclosure maintenance practices, and that have not been specifically described to the Regional Board and for which valid WDRs are not in force, are prohibited.

2. The waste received during the operating life of the Landfill shall not:

   a. Cause the occurrence of coliform or pathogenic organisms in waters pumped from a groundwater basin;

   b. Cause the occurrence of objectionable tastes or odors in waters pumped from a groundwater basin;

   c. Cause waters pumped from a groundwater basin to foam;

   d. Cause the presence of toxic materials in waters pumped from a groundwater basin;

   e. Cause the pH of waters pumped from a groundwater basin to fall below 6.0, or rise above 9.0;

   f. Cause the Regional Board's water quality objectives for groundwater or surface water as established in the Basin Plan to be exceeded; and

   g. Cause pollution, contamination, or nuisance, as defined in CWC section 13050, or adversely affect beneficial uses of groundwater or surface water as established in the Basin Plan.

3. Odors, vectors, and other nuisances of waste origin beyond the limits of the Landfill are prohibited.

4. The discharge of waste to surface drainage courses or to usable groundwater is prohibited.

5. The Discharger shall conduct closure and postclosure operations such that there is no release from the Landfill that causes any Basin Plan objective to be exceeded at any location under, or in the vicinity of, the Landfill. Moreover, no COCs shall exhibit a measurably significant increase over its respective Concentration Limit (background

data set) at any well, as indicated by an approved statistical or non-statistical data analysis method (including that method's retesting approach).

6. All applicable federal, state, and county sanitary health codes, rules, regulations, and ordinances pertinent to the disposal of wastes on land shall be complied with in the operation and maintenance of the Landfill.

C. REQUIREMENTS FOR CLOSURE AND POSTCLOSURE MAINTENANCE

1. Closure and postclosure maintenance of the Landfill shall be conducted in accordance with the Final Closure and Postclosure Maintenance Plan that was approved by the Executive Officer on December 9, 2011, or any subsequently approved plan.

2. If the Discharger notices any closure or post-closure maintenance standard in Article 2 of Subchapter 5 of Chapter 3 of Division 2 of 27 CCR (commencing with section 21090) that should apply at the Landfill, but that is missing from this Order, the Discharger shall notify the Regional Board within seven days.

3. The Landfill post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units at the site will not threaten water quality. Pursuant to 27 CCR 21900(a), the post closure maintenance period shall be a minimum of thirty years. The Discharger shall be released from postclosure maintenance only after demonstrating to and receiving approval from CalRecycle, the LEA, and Regional Board that the Landfill no longer poses a threat to public health and safety and the environment.

4. The Discharger shall comply with the completion of final closure pursuant to 27 CCR 21110(c and e). Specifically, the Discharger must complete closure activities within one year following the beginning of closure in accordance with the final closure plans approved by the Executive Officer on December 9, 2011 (see Finding No. 29). If the Discharger requests an extension of the approved construction time frame, the request shall be submitted to the Regional Board a minimum of 30 days prior to the end of the scheduled construction period and shall include all relevant information in support of the request. If an extension is granted by the Regional Board Executive Officer, the Discharger shall continue to take all steps to prevent threats to human health and safety and the environment from the unclosed Landfill.

5. All containment structures and erosion and drainage control systems at the Landfill shall be designed and constructed under direct supervision of a California-registered civil engineer or certified engineering geologist, and shall be certified by the individual as meeting the prescriptive standards and/or performance goals of 27 CCR.

6. The Discharger shall install containment structures that are capable of preventing degradation of the waters of the state. Construction standards for containment structures shall comply with 27 CCR requirements. Design specifications are subject to review and approval by the Executive Officer prior to any construction.

7. The Discharger shall submit detailed preliminary plans, specifications, and descriptions for all proposed containment structures and construction features for Executive Officer approval at least 60 days prior to construction. The preliminary plans shall contain detailed quality assurance/quality control for the proposed construction. As-built plans shall be submitted within 60 days after the completion of construction. If the as-builts are virtually identical to the approved preliminary plans and specifications, only change sheets need be submitted in lieu of complete as-built plans.

8. The Discharger shall perform an annual testing per 27 CCR section 20340(d) of any LCRS to demonstrate their operating efficiency during the postclosure maintenance period of the Landfill.

9. Drainage controls, structures, and facilities shall be designed to divert any precipitation or tributary runoff and prevent ponding and percolation of water at the Landfill in compliance with section 20365 and section 21090(b)(1) of 27 CCR. When necessary, temporary structures shall be installed as needed to comply with this requirement.

10. The Landfill shall be graded and maintained to promote runoff of precipitation and to prevent ponding of liquids and surface water. Erosion or washout of refuse or cover materials by surface flow shall be controlled to prevent off-site migration.

11. The migration of gases from the Landfill shall be controlled as necessary to prevent water pollution, nuisance, or health hazards. The discharge of wastes or waste by-products (i.e., leachate or gas condensate) to off-site surface drainage courses or to groundwater is prohibited.

12. During closure and postclosure maintenance no wastewater shall leave the Landfill except as permitted by a NPDES permit issued in accordance with the federal Clean Water Act and the California Code of Regulations.

13. Gas condensate gathered from the gas monitoring and collection system at the Landfill shall not be returned to the Landfill unless approved by the Executive Officer. Any proposed modifications or expansions to this system shall be designed to allow the collection, testing and treatment, or disposal by approved methods, of all gas condensate produced at the Landfill.

14. The Discharger shall intercept and remove any liquid detected in all LCRSs at the Landfill to a legal point of disposal and leachate shall not be returned back to the Landfill unless it meets the requirements of this Order for onsite reuse as described in section E, below and satisfies leachate handling requirements contained in 27 CCR section 20340(g). Any leachate determined to be hazardous shall be transported by a licensed hazardous waste hauler to an approved treatment or disposal facility.

15. The Discharger shall develop/maintain permanent survey monuments at the Landfill throughout the development, closure and postclosure maintenance periods. Benchmarks shall be established and maintained in sufficient numbers to enable reference to key elevations and to permit control of critical grading and compaction operations.

16. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, and adequate laboratory and process controls including appropriate quality assurance procedures.

17. The Discharger shall conduct periodic inspections at the Landfill, at least once per month, to ensure the compliance of this Order. The inspections shall cover the final cover system, the water quality monitoring system, drainage system, landscape and irrigations systems, leachate collection and removal systems, landfill gas collection system, and any other systems at the site that may have an impact to water quality at the site. Such inspections shall be documented and reported to the Regional Board in accordance with the MRP.

18. The Discharger shall report any noncompliance or any incident resulting from Landfill operations that are in violation of this Order. Any such information shall be provided verbally or by email to designated Regional Board staff within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within fourteen days of the time that the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

D. REQUIREMENTS FOR GROUNDWATER MONITORING

1. The Discharger shall implement the attached MRP No. CI-2294 (Attachment T) which is incorporated herein by reference and revisions thereto in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill or any unreasonable impairment of beneficial uses caused by the discharge of waste to the Landfill. MRP No. CI-2294 is designed to satisfy both federal and state regulatory monitoring requirements.

2. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Executive Officer to propose modifications to MRP No. CI-2294. The Discharger shall implement any changes to the revised MRP approved by the Executive Officer upon receipt of a signed copy of the revised MRP.

3. The Discharger shall furnish, under penalty of perjury, technical or monitoring program reports in accordance with CWC section 13267. Failure or refusal to furnish these reports or falsifying any information provided therein renders the Discharger guilty of a misdemeanor and subject to the penalties stated in CWC section 13268. Monitoring reports shall be submitted in accordance with the provisions contained in MRP No. CI-2294.

4. The effectiveness of all monitoring wells, monitoring devices, and leachate and gas collection systems shall be maintained throughout the Landfill's operational, closure, and postclosure maintenance periods in accordance with acceptable industry standards. The Discharger shall maintain a groundwater monitoring well preventative maintenance program (MWPMP) approved by the Executive Officer. Elements of the program should include a minimum of periodic visual inspections of well integrity, pump removal and inspection, and appropriate inspection frequencies. If a well or piezometer is found to be inoperative, the Regional Board and other interested agencies shall be so informed in writing within seven days after such discovery, and this notification shall contain a time schedule for returning the well or piezometer to operating order. Changes to the existing program shall be submitted for Executive Officer approval at least 30 days prior to implementing the change(s).

5. If a well or piezometer is proposed to replace an inoperative well or piezometer identified in the MRP, the Discharger shall not delay replacement while waiting for Executive Officer approval. However, a technical report describing the location and construction details shall be submitted to the Executive Officer within 30 days.

6. The Discharger shall provide for proper handling and disposal of water purged from monitoring wells at the Landfill during sampling. Water purged from a monitoring well shall not be returned to that well (or any other Landfill well).

7. Any abandoned wells or bore holes under the control of the Discharger, and situated within the Landfill boundaries, must be located and properly modified or sealed to prevent mixing of any waters between adjacent water-bearing zones. A notice of intent to decommission a well must be filed with the appropriate regulatory agencies prior to decommissioning. Procedures used to decommission these wells, or to modify wells still in use, must conform to the specifications of the local health department or other appropriate agencies.

8. For any monitoring wells installed at the Landfill in the future, the Discharger shall submit technical reports for approval by the Executive Officer prior to installation. These technical reports shall be submitted at least 60 days prior to the anticipated date of installation of the wells. These reports shall be accompanied by:

    a. Maps and cross sections showing the locations of the monitoring points; and

    b. Drawings and data showing construction details of the monitoring points. These data shall include:

        i. casing and test hole diameter;
        ii. casing materials;
        iii. depth of each hole;
        iv. the means by which the size and position of perforations shall be determined, or verified, if in the field;
        v. method of joining sections of casing;
        vi. nature of filter materials;
        vii. depth and composition of soils; and

viii. method and length of time of well development.

9. The compliance point(s) where water quality protection standards (WQPS) apply shall be located along downgradient edges of waste management facilities at the Landfill or an alternate location approved by the Executive Officer.

10. The compliance monitoring wells at the Landfill shall consist of those wells listed in Table T-1 of MRP No. CI-2294. All compliance monitoring wells shall be monitored pursuant to this Order and as directed by the Executive Officer through future revisions of MRP No. CI-2294.

11. As of the effective date of this Order, the Landfill's constituents of concern (COCs) are those listed in Table T-2 in the MRP. Any non-COC Appendix II constituent exceeding its respective PQL in both an initial leachate scan and retest automatically becomes a new COC.

12. In accordance with 27 CCR section 20390, the water quality protection standard (WQPS) for the Landfill is established as the natural background groundwater quality at the site.

13. In accordance with 27 CCR section 20390(a), WQPS shall apply during the closure period, the post closure maintenance period, and during any compliance period of the Landfill.

14. If necessary, the Discharger shall install additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices necessary to comply with MRP No. CI-2294, as adopted or as revised by the Executive Officer.

15. Unsaturated zone monitoring attempted at the Landfill has proved ineffective. Through adoption of the Order the Regional Board approves that an unsaturated zone monitoring program is not required during the Landfill postclosure maintenance period.

16. The Discharger shall continue the Corrective Action Program (CAP) at the Landfill that currently includes extracting contaminated groundwater at Barriers 1 and 3 to prevent such water being released offsite, and properly managing the landfill gas collection system to prevent the contact of landfill gas with groundwater. Extracted groundwater and landfill liquids shall be treated as necessary and either used onsite as permitted under section E of this Order, or discharged to the sanitary sewer system.

17. The WQPS for the on-going CAP at Subsurface Barrier Nos. 1 and 3 of the Main Canyon landfill-gas related VOCs will be the Minimum Levels (ML) as defined in Attachment 1 using USEPA method 8260, or an equivalent method approved by the Executive Officer.

18. The Discharger shall submit semi-annual reports to the Regional Board that describe the effectiveness of the CAP, according to the schedule outlined in revised MRP No. CI-2294.

19. If the Discharger or Executive Officer determines that the CAP either fails to contain the release or fails to provide effective remediation for those portions of the aquifer already affected by the release, the Discharger shall, pursuant to 27 CCR sections 20430(i) or (j) and 40 CPR section 258.58(b), submit an amended ROWD to make appropriate changes to the CAP within 90 days of the determination.

E. REQUIREMENTS FOR ON-SITE USE OF WATER

1. No water shall be routinely applied to refuse fill areas except for landscape irrigation, surface dust control, winter deck construction, road construction, final cover construction or non-emergency uses approved by the Executive Officer. Any water used at the Landfill, except for potable water, recycled water, and any other water allowed by the Executive Officer, shall be subject to these WDRs. Water used for these purposes shall be applied only in quantities not to exceed that necessary to reduce immediate dust hazards, support plant life, or to achieve desired compaction. Overflow or runoff caused by the over-application or improper management of irrigation or dust control water are prohibited.

2. Requirements for the use of recycled water at the Puente Hills Landfill are included in Water Reclamation Requirements for the San Jose Creek Water Reclamation Plant (Regional Board Order No. 97-072), which is the source of recycled water used at the Landfill. Order No. 97-072 contains recycled water requirements and provisions in accordance with California Code of Regulations Title 22 Water Recycling Criteria. The use of Title 22 tertiary treated recycled water at the Puente Hills Landfill includes, but is not limited to landscape irrigation, dust control and cooling water purposes at the Puente Hills Energy Recovery from Landfill Gas Facility.

3. Mixing any Landfill wastewater source with recycled or potable water to achieve reuse standards is prohibited.

4. During periods of precipitation, when the use of irrigation or dust control is not necessary for the purpose specified in this Order, all wastewater generated at the Landfill shall be stored, discharged to the sanitary sewer, or hauled to a legal point of disposal.

5. Washing of paved Landfill roads during rainy periods shall only occur when muddy roads create a safety concern. Washing of equipment or vehicles on the Landfill shall be confined to controlled areas where the wastewater is collected for proper disposal.

6. Wastewater used at the Landfill shall not percolate into the disposal areas or native soil, or enter stormwater collection systems, except as specifically permitted by this Order.

7. All uses of potable water, recycled, or wastewater shall be within the boundaries of the Landfill property. During an emergency, this water may be used for fire-fighting on the Landfill or on undeveloped areas of and adjacent to the Landfill.

F. REQUIREMENTS FOR REPORTING SCHEDULED ACTIVITIES

1. The Discharger shall notify Regional Board staff at least 30 days prior to any maintenance activities, for approval by the Executive Officer, which could alter existing surface drainage

patterns or change existing slope configurations during postclosure maintenance. These activities may include, but not be limited to, significant grading activities, the importation of fill material, the design and installation of soil borings, groundwater monitoring wells and other devices for Landfill investigation purposes.

2. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

3. If the Discharger becomes aware that it failed to submit any relevant facts in any report to the Regional Board, it shall submit such facts or information within seven days of its discovery of the omission.

4. The Regional Board shall be notified of any incident resulting from Landfill operations that may endanger the environment, by telephone or email within 24 hours, and in writing within fourteen days. The written notification shall fully describe the incident including what occurred, when it occurred, the duration of the incident, when correction occurred (or when correction will occur if it is a continuing incident), and the steps taken or planned to reduce, eliminate, and/or prevent recurrence. All instances of noncompliance with this Order shall also be reported to the Regional Board in the same manner as stated above.

5. The Discharger shall notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage between the Discharger and a new owner of the Landfill. Any transfer agreement between the Discharger and a new owner or operator shall include an acknowledgement that the Discharger is liable for violations up to the transfer date and that the new owner is liable from the transfer date on. The agreement shall include an acknowledgement that the new owners accept responsibility for compliance with this Order.

6. The Discharger shall notify the Regional Board in writing within seven days, if fluid is detected in a previously dry LCRS.

7. The Discharger shall report (on a semi-annual basis) the total volume of all irrigation water used at the Landfill each month and the area(s) where it is applied.

8. All applications, reports, or information submitted to the Executive Officer shall be signed and certified as follows:

    a. The applications, reports, or information shall be signed as follows:

        i. For a corporation - by a principal executive officer of at least the level of vice-president.

        ii. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

iii. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.

iv. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.

b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph [a] of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

i. The authorization is made in writing by a person described in paragraph [a] of this provision;

ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and

iii. The written authorization is submitted to the Executive Officer.

c. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

G. GENERAL PROVISIONS

1. This Order does not authorize violation of any federal, state, or local laws or regulations.

2. The Discharger has a continuing responsibility for correcting any problems which may arise in the future as a result of waste discharged at the Landfill, and from gases and leachate that may be caused by infiltration or precipitation of drainage waters into the waste disposal units, or by infiltration of water applied to this property during subsequent use of the land or other purposes.

3. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the CWC, any substances or parameters at this location.

4. The Discharger shall maintain a copy of this Order at the Landfill so as to be available at all times to Landfill operating personnel.

5. These requirements do not exempt the Discharger from compliance with any other current or future law that may be applicable. They do not legalize this waste management facility, and they leave and do not affect further restraints on the disposal of wastes at this waste management facility that may be contained in other statutes.

6. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements", adopted November 7, 1990 (Attachment W) which is incorporated herein by reference.

7. The requirements adopted herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, state, or local laws.

8. The filing of a request by the Discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any condition, provision, or requirements of this Order.

9. This Order does not convey any property rights of any sort, or any exclusive privilege.

10. The Discharger is the responsible party for these WDRs and any MRP for the Landfill. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement actions, including regional board orders, or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.

11. The Discharger shall within 48 hours of a significant earthquake event, provide an initial verbal assessment to the Regional Board of any earthquake damage at the Landfill. A detailed post-earthquake report describing any physical damages to the containment features, groundwater monitoring and/or leachate control facilities and a corrective action plan to be implemented at the Landfill shall be submitted to the Regional Board with thirty days of the earthquake event. A significant earthquake is herein defined as an earthquake event above Richter Magnitude 5.0 within a 100 kilometer radius of the property boundaries of the Puente Hills Landfill site, or as measured as a VI on the Modified Mercalli Scale.

12. The Discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in Landfill conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

13. The Discharger shall submit to the Regional Board and CalRecycle evidence of financial assurance for postclosure maintenance, pursuant to 27 CCR, division 2, chapter 6. The postclosure period shall be at least 30 years. However, the postclosure shall extend as long as wastes pose a threat to water quality.

14. The Discharger shall comply with all conditions of this Order and any additional conditions prescribed by the Regional Board in addenda thereto. Noncompliance with this Order constitutes a violation of the CWC and is grounds for:

    a. enforcement action;

    b. termination, revocation and reissuance, or modification of this Order; or

    c. denial of a ROWD in application for new or revised WDRs.

15. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

16. This Order is not transferable to any person except after notice to the Executive Officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the CWC. The Discharger shall submit notice of any proposed transfer of this Order's responsibility and coverage as described under Provision No. I.5 of this Order.

17. In accordance with CWC section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into the waters of the state are privileges, not rights.

18. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

19. This Order becomes effective on November 1, 2013.

20. This Order may be terminated or modified for cause, including, but not limited to:

    a. Violation of any term or condition contained in this Order;

    b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

c. A change in any condition that required either a temporary or permanent reduction or elimination of the authorized waste discharge.

21. This Order in no way limits the authority of the Regional Board, as contained in the CWC, to require additional investigations and cleanups pertinent to this project. This Order may be revised by the Executive Officer as additional information from the project becomes available.

22. Failure to comply with the terms and conditions of this Order may result in imposition of civil liability against the Discharger by the Regional Board, either by the Regional Board or judicially by the Superior Court, in accordance with CWC section 13350 et. seq. and/or referral to the Attorney General of the State of California for such legal action as may be deemed appropriate.

H. TERMINATIONS

1. Except for violation enforcement purposes, Regional Board Order No. R4-2006-0043, adopted April 6, 2006, is terminated as of close of business on October 31, 2013.

2. Because requirements applying a federal assessment monitoring program and a federal corrective action program are incorporated into this Order, the Landfill is no longer subject to Regional Board Order No. 93-062 requirements.

3. Because requirements for the disposal of TWW (Order No. R4-2006-0007), solid waste generated from wildfires (Order No. R4-2008-0013), and contaminated soils (Order No. R4-2011-0052), are for active disposal operations, the Landfill is no longer subject to requirements of Regional Board Order Nos. R4-2006-0007, R4-2008-0013, and R4-2011-0052.

I, Samuel Unger, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 3, 2013.

Samuel Unger

Samuel Unger, P.E.
Executive Officer

FIGURE 1:
PUENTE HILLS LANDFILL - LOCATION MAP

FIGURE 2:
PUENTE HILLS LANDFILL - GEOGRAPHIC AREAS

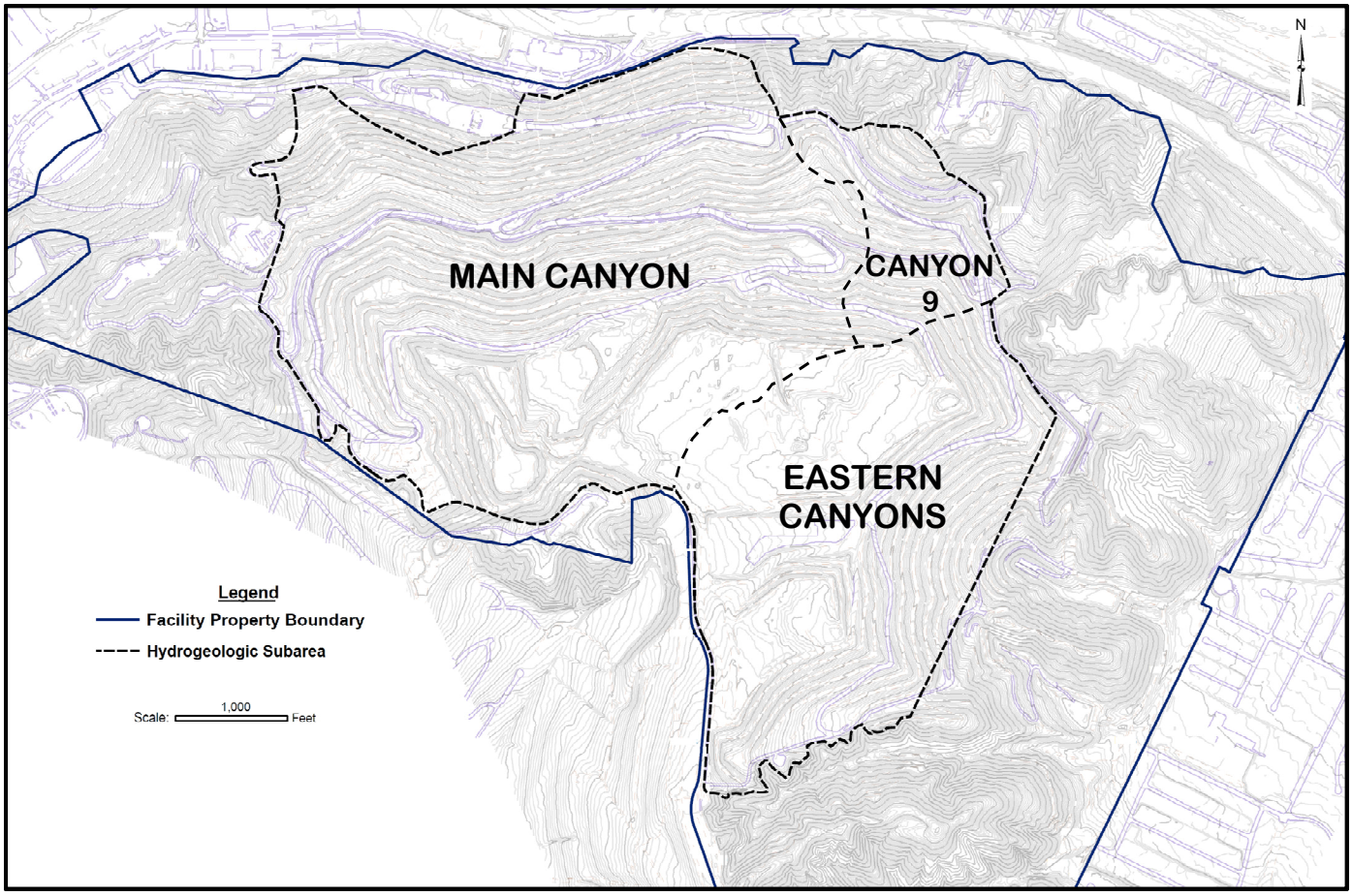


FIGURE 3:
PUENTE HILLS LANDFILL – GROUNDWATER BASIN

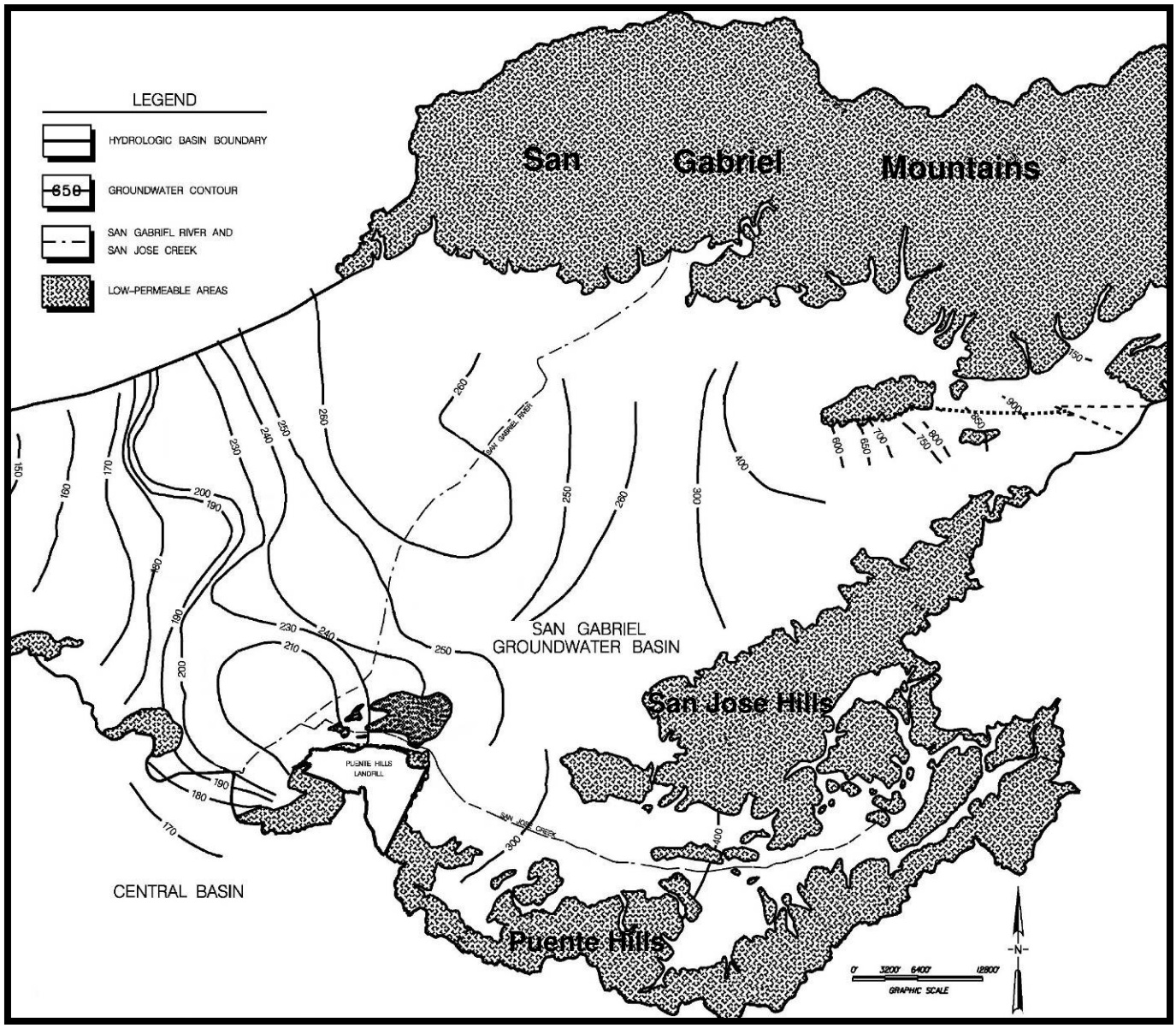


FIGURE 4:
PUENTE HILLS LANDFILL – BARRIER AND MONITORING WELL LOCATIONS

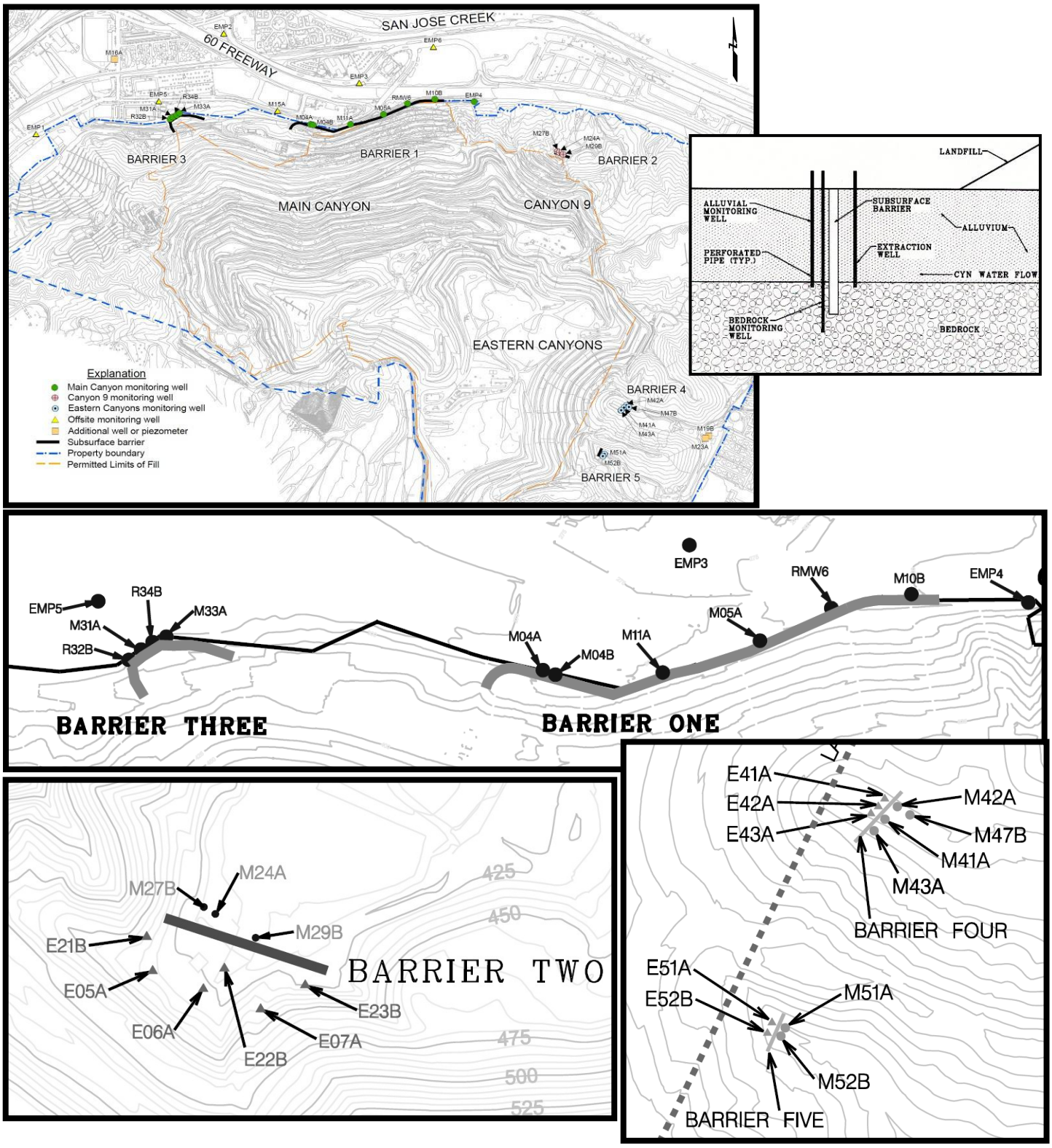
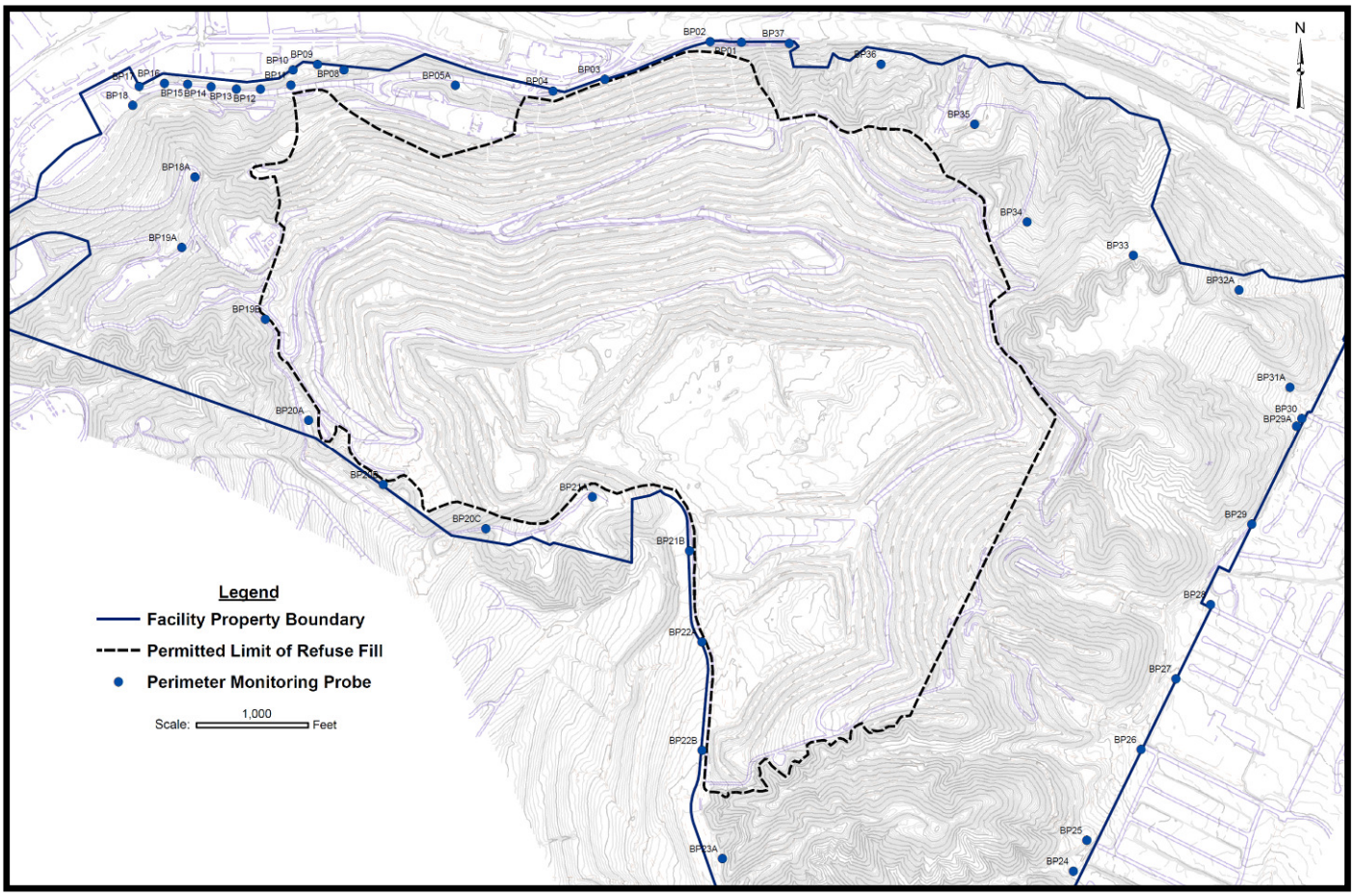


FIGURE 5:
PUENTE HILLS LANDFILL – GAS MONITORING PROBE LOCATIONS



STANDARD PROVISIONS
APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350]

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code (CWC). [H&SC Section 5411, CWC Section 13263]

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. [CWC Section 13263]

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. [CWC Section 13260(c)]. A material change includes, but is not limited to, the following:

(a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the Waste.

(b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

(c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.

(d) Increase in flow beyond that specified in the waste discharge requirements.

(e) Increase in the area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board. [CCR Section 13263]

7. TERMINATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. [CWC Section 13263(g)]

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provision of these requirements are found invalid, the remainder of the requirements shall not be affected. [CWC Section 921]

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. [CWC Section 13263(f)]

11. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be 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, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. [CWC Section 1327(a)]

12. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be 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, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC Section 13272]

13. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

(d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC Section 13267]

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Office a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR Title 23, Section 2230]

15. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. [CWC Section 13263(f)]

16. DISCHARGE TO NAVIGABLE WATERS

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 fo the Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Board. [CCR Title 2 Section 22357]

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Office within 24 hours:

(a) Any bypass from any portion of the treatment facility.

(b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.

(c) Any treatment plan upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

18. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies off all reports required by this Order, and record of all data used

to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

(a) The date, exact place, and time of sampling or measurement;

(b) The individual(s) who performed the sampling or measurement;

(c) The date(s) analyses were performed;

(d) The individual(s) who performed the analyses;

(e) The analytical techniques or method used; and

(f) The results of such analyses.

19. (a) All application reports or information to be submitted to the Executive Office shall be signed and certified as follows:

(1) For a corporation – by a principal executive officer or at least the level of vice president.

(2) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

(b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:

(1) The authorization is made in writing by a person described in paragraph (a) of this provision.

(2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and

(3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268]"

20. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with Title 23, California Code of Regulations Section 3680. State Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plan operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

Each plan shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through the Clean Water Grant Program [CWC Title 23, Section 2233(d)]

ADDITIONAL PROVISIONS APPLICABLE TO
PUBLICLY OWNED TREATEMENT WORKS' ADEQUATE CAPACITY

21. Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Board itself. [CCR Title 23, Section 2232]

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-2294
FOR
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
(PUENTE HILLS LANDFILL)

(File No. 57-220)

General

1. Monitoring responsibilities of the County Sanitation Districts of Los Angeles County (Discharger) for the Puente Hills Landfill (Landfill) are specified in California Water Code (CWC) section 13225(a), section 13267(b) and section 13387(b), and State Water Resources Control Board (SWRCB) Resolution No. 93-62. This self-monitoring program is issued pursuant to California Regional Water Quality Control Board, Los Angeles Region (Regional Board) Order No. R4-2013-0156 (Order). The principal purposes of a self-monitoring program by a waste discharger are:

   a. To document compliance with discharge requirements and prohibitions established by the Regional Board;

   b. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge; and

   c. To prepare water quality analyses.

2. The Discharger shall implement this monitoring and reporting program (MRP), as described in section D (Requirements for Groundwater Monitoring) of the Order. The Discharger shall implement this MRP during the first monitoring period immediately following adoption of the Order.

3. The Discharger shall comply with the requirements of title 27 of the California Code of Regulations (27 CCR) section 20415 for any water quality monitoring program developed to satisfy 27 CCR section 20420, section 20425, or section 20430 and the requirements of the Order. Groundwater monitoring shall meet the requirements of 27 CCR section 20415(b) and 40 CFR section 258.51 (a, c, and d);

Monitoring Program

4. The groundwater monitoring network at the Landfill shall include all groundwater monitoring wells listed in Table T-1. The Regional Board Executive Officer (Executive Officer) may require the Discharger to install additional groundwater monitoring wells in response to the detection of a release of pollutant from the Landfill or other change in site condition.

5. Unless otherwise approved by the Executive Officer, groundwater monitoring at the Landfill shall be conducted semi-annually, starting in March and September of each year. In the event monitoring is not performed as above because of unforeseen circumstances, substitute monitoring shall be performed as soon as possible after these times, and the

reason for the delay shall be reported in the semiannual report submitted to the Regional Board.

6. Constituents of Concern (COCs) - As of the effective date of the Order, the Landfill's COCs are listed in Table T -2 and consist of constituents for which the Regional Water Board would require a corrective action response, if they were included in a release, plus every constituent in Appendix II (to 40 CPR Part 258) that has ever exceeded its Practical Quantitation Limit (PQL) concentration both in an annual landfill leachate scan and also in its follow-up retest leachate sample or has been verified in groundwater at any Landfill compliance monitoring well. After the Order's effective date, the Landfill's COC list will expand, automatically, to include any Appendix II constituent thus detected-and-verified in the annual non-COC scan required in this MRP.

7. Monitoring Parameter (Mpar) List - This list, which is identified as a portion of the COCs in Table T-2, includes several inorganic "Metals Surrogates" which take the place of the fifteen federal metallic constituent Mpars [as allowed by 40 CFR section 258.54(a)(2)], all volatile organic compounds (VOCs) that are COCs, and any Mpar that is in Tracking Mode per Item No. 14.e.*ii* of this MRP.

8. Concentration Limits - In accordance with 27 CCR section 20400(a)(1), the concentration limit of each COC in groundwater at the Landfill is established as the background value of that constituent. The best indication of the population mean ("background value") is the mean of a group of at least eight background data points that represent what one would expect to see, at that well, in the absence of the effect of any release. Therefore, the "Concentration Limit" for any COC is its respective background data set. One applies an appropriate statistical or non-statistical data analysis method to this group of background data points to determine its "Threshold Value" (do-not-exceed concentration). An exceedance of this Threshold Value, if validated by retesting, causes that well/Mpar pair to change from "Detection Mode" (no release indicated) to "Tracking Mode" (release indicated). The "Threshold Value" for a COC is either the upper prediction limit derived from historical monitoring data in accordance with 27 CCR section 20415(e)(7) (for constituents naturally exist in the groundwater) or its PQL (for constituents that do not naturally exist in the groundwater).

9. The current Threshold Values (upper prediction limits) for all Metals Surrogates and VOCs at all detection monitoring wells at the Landfill are listed in Table T-3. The Discharger shall update the Threshold Values in its annual report submitted to the Regional Board for the Landfill in accordance with Item 13 of this MRP.

10. Annual Non-COC Scan - Pursuant to 40 CFR 258.55(b), the Discharger shall take one leachate sample from the LCRS in the Canyon 9 and Eastern Canyons areas, and one groundwater sample from monitoring well EMP5 that is downgradient to the unlined Main Canyon area in September of each year and shall analyze the samples for all constituents of 40 CFR Appendix II (Appendix II) that are not already included in Table T-2 of this MRP as COCs, and emergent chemicals including 1,4-Dioxane, 1,2,3-Trichloropropane, Perchlorate, and N-Nitrosodimethylamine (NDMA). If the September non-COC scan identifies any previously undetected (i.e. the constituent does not exceed its respective PQL concentration) Appendix II constituent(s) or emergent chemical(s) in any leachate or groundwater samples, the Discharger shall obtain a single retest sample from that source

the following Mach and analyze it for all such new constituents. Any constituents verified in the March retest shall become part of the COC list, with new VOCs going onto the Mpar list and non-VOCs going onto the “Other COCs” listed in Table 2. The Discharger shall include a prominent notification of these new COCs in the next scheduled monitoring report.

11. Five-Year COC Scan - Every five years, starting in 2014, the Discharger shall analyze a sample from each groundwater monitoring point and test for all “Other COCs” in Table T-2 that are present at a concentration in excess of their respective Threshold Value. The threshold value is the upper-85th-percentile-concentration of eight or more data points of background data collected since 1998). This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d). During each such COC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each monitoring well (sufficient to obtain a datum for each COC that is subject to the scan). Upon detecting a COC in excess of its Threshold Value, the Discharger shall, within 90 days, take a single resample from the indicating affected well(s) and reanalyze it only for the newly-detected constituent(s). Any COC that exceeds its respective Threshold Value in both the initial and the retest scan samples automatically becomes part of the Mpar list for the Landfill. This constitutes the means by which the Discharger shall meet the requirements of 40 CFR 258.55(d)(2).

12. The Discharger shall satisfy all stormwater monitoring requirements pursuant to any Regional Board State Board order or Executive Officer directive regulating surface water discharges.

DATA ANALYTICAL METHODS

13. Moving Window Concentration Limits - Unless otherwise directed by the Executive Officer, all well/COC pair statistic testing for the Landfill shall use the "intra-well comparison" approach whereby the concentration limit (reference background data set) is derived from each well's historic data. Beginning March 2014, the Discharger shall develop concentrations limits for all Mpars at all groundwater monitoring wells using data obtained in the past ten (10) years. Thereafter, the concentration limits shall be updated biannually by adding monitoring data obtained in the past two years and retiring the oldest two-year data in the database. The Discharger shall report the updated background data set, for each such well/Mpar pair, in each Annual Summary Monitoring Report required in this MRP. Concentration limits for new well/COC pairs shall be developed when ten or more data points are available for the well/Mpar pair. During the biannual update of constituent concentration limits, the Discharger shall conduct a statistics-based trend analysis for all monitoring parameters (MPars) that are in Tracking Mode. If the results of the analysis indicate an increasing trend for an MPar, the Discharger may submit a technical report to the Regional Board, for the approval of the Executive Officer, prior to the next semiannual monitoring event if there is evidence that the increasing trend is the result of natural variability in groundwater and not related to a Landfill release. Otherwise the Discharger shall increase the monitoring interval for the MPar to quarterly and shall report monitoring results in the subsequent semiannual report submitted to the Regional Board.

14. Statistical Data Analysis Methodology

a. For the purposes of this MRP, Minimum Level (ML)[1] and Reporting Limit (RL)[2] are functionally equivalent to method detection limit (MDL) and practical quantitation limit (PQL) with regard to reporting and statistical evaluation requirements. For this purpose, MLs and RLs shall be derived by the laboratory for each analytical procedure, according to the SWRCB's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (the State Implementation Policy or SIP) and the State of California's laboratory accreditation procedures. Sample results greater than or equal to the ML/RL shall be reported "as measured" by the laboratory. Sample results less than the ML/RL shall be reported as less than the numeric values of the ML/RL. Nominal ML and RL values shall be reported with all data. Correspondingly, any reference to "detections at or above the trace level" shall be substituted with "detections at or above the Minimum Level".

b. Performance Standards - Pursuant to 27 CCR 20415(e)(8), in cases where the Discharger proposes to use a non-statistical data analysis method, the Discharger shall demonstrate that it meets the performance standard given in 27 CCR 20415(e)(8). For the purposes of this paragraph, pursuant to authority under 27 CCR 20080(a)(1), the error rate restrictions of 27 CCR 20415(e)(9)(B) do not apply to any statistical method that (including its retesting approach) meets or exceeds the USEPA's reference power curve (Unified Guidance, 2009, USEPA publication EPA 530-R-09-007).

c. Retest is Part of the Method - In the event that an approved data analysis method provides a preliminary indication that a given COC has exhibited a measurably significant increase at a given well, the Discharger shall conduct a verification procedure either in the form of a discrete retest, in accordance with 27 CCR section 20415(e)(8)(E), or, pursuant to 27 CCR 20080(a)(l), any of the better-performing retesting options (e.g., the pass-1-of-3 approach) in which the triggering concentration is lowered to counter the adverse effect that retesting would otherwise have on the data analysis method's false-negative rate (compared with a no retest pass-1-of-1 approach). Nevertheless, any approved non-statistical method used for data analysis shall use a pass-1-of-2 retesting approach as provided in Item 15.b of this MRP. The retest is part of the data analysis method, therefore, a measurably significant increase exists only if the retesting does not countermand the preliminary indication, according to the retesting formula. The Discharger has the discretion to accept that the preliminary indication confirms a measurably significant increase at a given monitoring well and forgo verification retesting procedures.

d. Limited Retest Scope - For any given groundwater monitoring point, the Discharger shall perform the verification procedure only for those Mpars that have shown a preliminary indication at that well during that reporting period. At any time, the Discharger may demonstrate, in accordance with 27 CCR section 20420(k)(7), that a source other than

[1] "Minimum Level" represents the lowest quantifiable concentration in a sample based upon the proper application of analytical procedures and the absence of any matrix interference. MLs also represent the lowest standard concentration on the calibration curve for a specific analytical technique after the application of appropriate method-specific factors.

[2] "Reporting Limit" is the same as Minimum Level when there have been no modifications, such as dilution or concentration to the standard analytical procedure during sample preparation.

the Landfill caused an Mpar to produce a measurably significant increase at a given well or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation, or by natural variation in the groundwater.

e. Water Quality Monitoring Approach - The monitoring approach used for each well/Mpar pair shall be controlled by whether that Mpar has exhibited a measurably significant increase at that well. Therefore, the Discharger shall monitor each well/Mpar pair in one of two modes, as follows:

i. Detection Mode- For an Mpar that has not produced a measurably significant increase at that well, the purpose of monitoring, for that well/Mpar pair, is to watch for the Mpar's arrival at that well at a concentration in excess of its respective Threshold Value; or

ii. Tracking Mode - For an Mpar that has produced a measurably significant increase at a given well, the purpose of the monitoring, for that well/Mpar pair, is to verify the suitability and effectiveness of the existing or proposed corrective measures by tracking changes in the Mpar concentration at that location via an evolving concentration versus- time plot. For any well/Mpar pair placed into Tracking Mode, its pre-tracking mode Concentration Limit shall be plotted as a horizontal line on all corresponding concentration-versus-time plots. The Concentration Limit for the well/Mpar pair shall not be recalculated while the well/Mpar pair is in Tracking Mode. The goal is to indicate when the applied corrective action measures have brought the Mpar concentration down to, or below, this concentration. These plots shall be the primary input for the Discharger's semiannual analysis of the effectiveness of the corrective action measures.

f. Detection Mode Data Analyses - The following applies to all detection mode data analyses (i.e., this provision does not apply to well/Mpar pairs that are in tracking mode):

i. Mpars Readily Detectable in Background - At any given groundwater monitoring point, the Discharger shall apply an approved statistical analysis method for each detection mode Mpar that exceeds its respective MDL in 10% or more of the applicable background data set. For each well/Mpar pair (separately), an approved statistical analysis is a method, other than analysis of variance (ANOVA), that is either validated and analyzed by the SANITAS® water quality data analysis software (distributed by Intelligent Decisions Technology, Inc., 22052 W 66th Street, Suite 133, Shawnee, KS 66226, Tel: (913) 829-1470) or that the Executive Officer agrees meets the performance standards of 27 CCR section 20415(e)(9). For any statistical data analysis method that is not validated by comparison to the USEPA's Reference Power Curve, if using SANITAS®, the Discharger shall use the "CA Standards" and "CA Retest" settings (under the "Options" pull-down menu).

ii. Mpars not Readily Detectable in Background- For any monitoring point at which one or more detection mode Mpars exceed their respective MDL in less than 10% of the applicable background data set, the Discharger shall analyze the data for these Mpars via the California Non-statistical Data Analysis Method (CNSDAM) test described in Item No. 15 of this MRP.

15. California Non-statistical Data Analysis Method

a. Non-Statistical Method for Detection Mode for Mpars Seldom Found in Background - For any given compliance (downgradient) well, regardless of the monitoring program (Detection Monitoring Program [DMP], Evaluation Monitoring Program [EMP], Assessment Monitoring Program [AMP], or Corrective Action Program [CAP]), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" of Item No. 15(a)(i), below (or, for each retest sample, the modified scope list of Item No. 15(b)(ii), below).

   i. Scope List – Within 90 days of the effective date of the Order, the Discharger shall create a current "scope list" showing each detection mode Mpar, at that well, that exceeds its MDL in less than 10% of its background data.

   ii. Two Triggers - From the scope list made under Item No. 15(a)(i), above, for an initial test (or, for a retest, the modified scope list under Item No. 15(b)(ii) below), the Discharger shall identify each Mpar in the current sample from that well that exceeds either its respective MDL or PQL. The Discharger shall conclude that these exceeding Mpars provide a preliminary indication (or, for a retest, provide a measurably significant indication) of a change in the nature or extent of the release, at that well, if either:

      A. Three or more of the Mpars on a monitoring well's scope list exceed their respective MDL; or

      B. At least one of the Mpars on a monitoring well's scope list equals or exceeds its respective PQL.

b. Single Retest (pass-1-of-2 approach):

   i. In the event that the Discharger concludes (pursuant to Item No. 15(a)(ii) above) that there is a preliminary indication, then the Discharger shall immediately notify Regional Board staff by phone, followed by more formal notification via fax, email, or writing within fourteen days and inclusion of a notice thereof in the facility operating record. The Discharger shall, within 90 days of such indication, collect **one** new (retest) sample from the indicating compliance well.

   ii. For any given compliance well, the Discharger shall analyze the retest samples only for those constituents indicated in that well's original test, under Item No. 15(a)(ii), above, and these indicated constituents shall comprise the well's "modified scope list." As soon as the retest data are available, the Discharger shall apply the same test (under Item No. 15(a)(ii), above, but using this modified scope list) to separately analyze each of the retest data at that compliance well.

   iii. If the retest sample triggers either (or both) of the triggers under Item No. 15(a)(ii), above, then the Discharger shall conclude that there is a measurably significant increase at that well for the constituent(s) indicated in both the original and in the retest sample (i.e., not including constituents triggering in only one of the two samples). Thereafter, the Discharger: shall monitor the indicated constituent(s) in

tracking mode instead of detection mode; (see Item No. 14(f)(ii), above) at that well; shall eliminate it from the "scope list" [under Item No. 15(a)(i), above] for that well during future runs of this non-statistical method; shall notify the Regional Board by phone, followed by more formal notification via fax, email, or writing within fourteen days and inclusion of a notice thereof in the facility operating record; and shall note this change prominently in the body of the forthcoming monitoring report and in that report's summary.

c. The Discharger may propose alternative non-statistical methods for Mpars seldom found in background to be approved by the Executive Officer, together with a technical discussion showing how the proposed method performs at least as well as the one described above at achieving the goal of providing the earliest possible detection and measurement of a release for any given rarely-detected constituent at any given well.

16. Monitoring Data Information - For each Mpar addressed during a given reporting period, the Discharger shall include in the monitoring report a listing of the prevailing MDL and PQL for that Mpar, together with an indication as to whether the MDL, PQL, or both have changed since the prior reporting period. The Discharger shall require the analytical laboratory to report all applicable censored data (trace level and non-detect determinations). In the event that an MDL and/or PQL for an Mpar changes, the Discharger shall highlight that change in the report summary and the report shall include an explanation for the change that is approved by the owner/director of the analytical laboratory.

17. Data analysis shall be carried out as soon as the data are available in accordance with statistical and non-statistical analyses requirements described in this MRP.

SAMPLING AND ANALYTICAL PROCEDURES

18. Unless otherwise approved by the Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the DHS. All analyses shall be conducted in accordance with the latest edition of "Test Methods for Evaluating Physical/Chemical Methods" (SW-846) promulgated by the USEPA (or equivalent standard methods as approved by the Executive Officer) and in accordance with an approved sampling and analysis plan. Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. Specific methods of analysis· must be identified. If methods other than USEPA-approved methods or standard methods are used, the exact methodology must be submitted for review and must be approved by the Executive Officer prior to use. For any analyses performed for which no procedures are specified in the EPA guidelines or in this MRP, the constituent or parameter analyzed, and the method or procedure used, must be specified in the corresponding monitoring report. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall approve all reports of such work submitted to the Regional Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the Discharger is responsible for seeing that the laboratory analysis of all samples meet the following restrictions:

a. The methods and analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations

(i.e. "trace" or "ND") in data from background monitoring points for that medium, the analytical methods having the lowest facility-specific MDL shall be selected from among those methods which would provide valid results in light of any matrix effects involved.

b. Trace results falling between the MDL and the facility-specific practical quantitation limit (PQL), shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run and by an estimate of the constituent's concentration.

c. MDLs and PQLs shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being quoted from USEPA analytical method manuals. If the lab suspects that, due to matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory derived MDL/PQL values, the results shall be flagged accordingly, along with an estimate of the detection limit and quantitation limit actually achieved.

d. All quality assurance/quality control (QA/QC) data shall be reported, along with the sample results to which it applies, including the preparation and analytical methods, instrument, analytical detection limits, dilution factors, units, the recovery rates, an explanation (corrective action) of any QA/QC measure that is outside the laboratory control limits, the results of method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery unless otherwise specified by the reference method.

e. Upon receiving written approval from the Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given reporting period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any sample shall be reported and flagged for easy reference by Regional Board staff.

f. Within 90 days of the adoption of the Order, the discharger shall submit a technical report for approval by the Executive Officer that describes the methodology for identifying and estimating concentrations for tentatively identified compounds.

g. In cases where contaminants are detected in QA/QC samples (i.e. field, trip, or lab blanks), the accompanying sample results shall be appropriately identified.

19. Proper chain of custody procedures shall be used in all sampling activities at the Landfill.

20. All compliance groundwater monitoring system wells shall be equipped with dedicated sampling pumps, unless otherwise approved by the Executive Officer.

21. All metals analyses shall be for total metals using unfiltered samples. Metals samples must be preserved in accordance with the specified laboratory methods, however care shall be

taken that the dissolved metals samples are not exposed to acids until after filtering. The Discharger may elect to also obtain filtered metals representative of the dissolved phase. If so the Discharger must report the results of both the filtered and unfiltered.

22. No filtering of samples taken for organics analyses shall be permitted. Samples for organic analyses shall be taken with a sampling method that minimizes volatilization and degradation of potential constituents.

23. Ninety-Day Sample Procurement Limitation: For any given monitored medium, the samples taken from all monitoring points to satisfy the data analysis requirements for a given reporting period shall all be taken within a span of ninety days, and shall be taken in a manner that insures sample independence to the greatest extent feasible [27 CCR section 20415(e)(12)(B)]. For any sampling event during which samples are not collected within ninety days, the Discharger shall report the sampling period in the corresponding semiannual report.

24. Groundwater sampling shall also include an accurate determination of the groundwater surface elevation and field parameters (temperature, pH, electrical conductivity, turbidity) for that monitoring point [27 CCR section 20415(e)(l3)]; groundwater elevations taken prior to purging the well and sampling for monitoring parameters shall be used to fulfill groundwater flow rate/direction analyses required under Item No. 31(a)(i) of this MRP. All field parameter measurements shall be included in the semiannual reports submitted to the Regional Board.

25. Records to be maintained- Written reports shall be maintained by the Discharger or its laboratory and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board. Such records shall show the following for each sample:

    a. Identity of sample and of the monitoring point from which it was taken, along with the identity of the individual who obtained the sample;

    b. Date and time of sampling;

    c. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;

    d. Complete procedures used, including method of preserving the sample, and the identity and volumes of reagents used;

    e. Calculations of results; and

    f. Results of analyses, and the MDL and PQL for each analysis.

REPORTS TO BE FILED WITH THE REGIONAL BOARD

26. Semi-annual and annual monitoring reports shall be submitted pursuant to the following schedule.

Report	Period	Reporting Date
1st Semiannual	January - June	August 15th
2nd Semiannual	July – December	February 15th
Annual	January – December	February 15th

The Discharger may combine the annual report with the 2nd semiannual report of the year provided that all required information is included in the combined report. The semiannual and annual reports shall include all information that is routinely required in the Order and this MRP.

27. All groundwater monitoring reports shall be prepared under the supervision of a California-registered professional geologist or registered civil engineer and shall be certified by the individual as meeting the prescriptive standards and/or performance goals of 27 CCR.

28. Transmittal letter - A letter transmitting the essential points shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter.

29. Signature, certification, and perjury statement requirements - All letters transmitting monitoring reports shall follow the signature, certification, and perjury statement requirements provided in Requirement F.8 of the Order.

30. The Discharger shall submit all scheduled reports required in the Order and this MRP electronically, in accordance with 23 CCR section 3890 et. seq., or as directed by the Regional Board Executive Officer. Until directed otherwise by the Regional Board Executive Officer, all reports shall be submitted to the State Board GeoTracker data system in searchable Portable Document Format (PDF) files (Geotracker Global ID. L10009779056). In addition, all groundwater analytical data and monitoring well locations shall be submitted to GeoTracker in Electronic Deliverable Format (EDF). Documents that cannot be conveniently reviewed in electronic format, such as large maps or drawings, shall be submitted as hard copies to the Regional Board office as instructed by Regional Board staff. All hard copy reports required in this MRP shall be addressed to:

    California Regional Water Quality Control Board
    Los Angeles Region
    320 W. 4th Street, Suite 200
    Los Angeles, California 90013
    ATTN: Information Technology Unit

    The program number (CI-2294) shall be clearly displayed on the cover page of each report.

31. **Semiannual monitoring report**s shall be comprised of at least the following:

    a. Compliance evaluation summary - Each report shall include a compliance evaluation summary. The summary shall contain at least:

i. For each monitored groundwater body, a description and graphical presentation of the velocity and direction of the groundwater flow under/around the Landfill, based upon water level elevations taken during the collection of the water quality data submitted in the report. In the case where this cannot be determined with meaningful results, a statement to the nature of the groundwater flow and general flow characteristics will suffice.

ii. Pre-sampling purge for samples obtained from wells: For each monitoring point addressed by the report, a description of the method and time of water level measurement, of the type of pump used for purging and the placement of the pump in the well, and of the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, electrical conductivity and turbidity during purging, the calibration of the field equipment, results of the pH, temperature, electrical conductivity, and turbidity testing, and the method of disposing of the purge water).

iii. Sampling: For each monitoring point addressed by the report, a description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the date and time of sampling, the name of the person taking the samples, and any other observations).

iv. A separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the Discharger into full compliance with waste discharge requirements. This section shall be located at the front of the report and shall clearly list all noncompliance with discharge requirements.

v. A separate appendix containing any revised COC List (showing its then-current Mpar List), together with, for each such listing, the wells to which that list applies. In any such listing, the new or moved COC(s) shall be in bolded print (or otherwise emphasized).

vi. A separate appendix containing, for each well/COC pair, the then-current Concentration Limit (i.e., the source of the background data and a list of the then current background data [concentrations]). (For the first report under this MRP, all background data for all well/COC pairs listed in Tables T-1 and the “Indicator Parameters” in T-2 shall be included. In subsequent reports, only the data for recalculated Concentration Limits need be included).

vii. A separate appendix containing, for the first submittal thereof, a complete succinct description of the data analysis method, including all parameter settings, for each well/Mpar pair. If the method is the CNSDAM, simply state "CNSDAM" following the well/Mpar pair's name, without further description. For subsequent annual monitoring reports, this appendix need address only those well/Mpar pairs for which the data analysis method has changed since the initial (comprehensive) listing, together with the date when that (most recent) change became effective.

viii. A separate appendix listing, organized by well, listing all Mpars that are in Tracking Mode (release indicated) at each well and showing (in parentheses following the

constituent name) the date when that well/Mpar pair changed from Detection Mode to Tracking Mode.

b. A map or aerial photograph showing the locations of observation stations and monitoring points;

c. Laboratory results for groundwater, LCRS, and any wastewater type reused at the Landfill, shall be summarized in the report. For each report, include laboratory statements of results of all analyses demonstrating compliance with Item No. 18 of this MRP;

d. A summary and certification of completion of the routine inspections required in section C.16 of the Order, including but not limited to, all standard observations listed below for the Landfill and the perimeter of the Landfill.

i. Along the perimeter of the Landfill:

A. Evidence of liquid leaving or entering the Landfill, estimated size of affected area, and flow rate;

B. Evidence of odors: presence or absence, characterization, source, and distance of travel from source; and

C. Evidence of erosion and/or of exposed refuse.

ii. For the Landfill:

A. Evidence of ponded water at any point on the waste management facility;

B. Evidence of odors: presence or absence, characterization, source, and distance of travel from source; and

C. Evidence of erosion and/or of exposed refuse.

e. The volume of recycled water applied each month in the reporting period.

f. A summary of any wastewater reuse including the following:

i. The volume of wastewater from each source in each month in the reporting period and the area(s) where the water is applied.

ii. A statement that, during the reporting period, all wastewater was used only as specified, and for the uses specified in the Order.

iii. Analytical results for wastewater. If a wastewater source was not sampled or measured during the reporting period, the reason for the omission shall be given. If no wastewater was used from a source, a statement to that effect shall be provided in lieu of analyses.

iv. Records of operational problems, mechanical breakdowns, and diversions to emergency storage or disposal associated with any violations, or potential violations of the Order and, any corrective actions taken.

v. If all or a portion of the wastewater was not used because of a failure to meet the limits specified in the Order, the report shall so state and identify the disposition of the effluent.

g. A summary of any repair work of the final cover and any other maintenance work performed during the reporting period and plans for repair and maintenance work for the next monitoring period.

h. A corrective actions measures (CAM) effectiveness report (per 27 CCR section 20430(h)) that includes, at a minimum, a comprehensive discussion of the compliance record and the result of any corrective actions taken, or planned, which may be needed to bring the Discharger into full compliance with the WDRs.

32. **Annual monitoring reports** shall contain:

a. A graphical presentation of analytical data [27 CCR section 20415(e)(14)]: For each monitoring point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous ten calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given monitoring point, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. On the basis of any aberrations noted in the plotted data, the Executive Officer may direct the Discharger to carry out a preliminary investigation [27 CCR section 20080(d)(2)], the results of which will determine whether or not a release is indicated;

b. A written summary of the groundwater analyses, indicating any changes made since the previous annual report;

c. A discussion of any routinely-revised intra-well background monitoring data;

d. An evaluation of the effectiveness of the run on/run -off control facilities, pursuant to 27 CCR section 21090(b)(1) and 20365.

33. Contingency response - Any incident at the Landfill that may endanger the environment, such as a seepage of leachate, a spill of hazardous chemicals, or discovery of a physical evidence of release as defined in 27 CCR section 20385(a)(3), shall be reported to the Regional Board pursuant to section F.4 of the Order.

34. The Discharger may submit additional data to the Regional Board not required by this program in order to simplify reporting to other regulatory agencies.

35. If the Discharger performs analyses for any parameter more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the monitoring program.

Ordered by Samuel Unger

Sam Unger, P.E.
Executive Officer
October 3, 2013

Table T-1:
Groundwater Monitoring Wells

Location	Monitoring Wells
Barrier 1 Wells	M04A, M04B, M05A, M10B, M11A, RMW6
Barrier 2 Wells	M24A, M27B, and M29B
Barrier 3 Wells	M31A, R32B, M33A, and R34B
Barrier 4 Wells	M41A, M42A, M43A, and M47B
Barrier 5 Wells	M51A and M52B
Corrective Action Program Wells	EMP1, EMP2, EMP3, EMP4, EMP5, EMP6, and M15A
Additional Wells	M16A, M19B, M23A

Table T-2:
Landfill COCs

Monitoring Parameters (Mpars)			Other COCs
Indicator Parameters*		Supplemental Parameters	
Inorganic Parameters: Ammonia, nitrogen Chemical oxygen demand (COD), soluble Chloride Nitrate-N Nitrite-N Sulfate Total dissolved solids (TDS) Total organic carbon (TOC) Biochemical Oxygen Demand (BOD), soluble **Appendix I VOCs:** 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,4-Dichlorobenzene 2-Butanone 2-Hexanone 4-Methyl-2-Pentanone Acetone Acrylonitrile Benzene	Bromochloromethane Bromodichloromethane Bromoform Bromomethane c-1,2-Dichloroethene c-1,3-Dichloropropene Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane Dibromomethane Dichlorodifluoromethane Ethylbenzene Iodomethane Methylene chloride o-Xylene p/m-Xylene Styrene t-1,2-Dichloroethene t-1,3-Dichloropropene t-1,4-Dichloro-2-Butene Tetrachloroethene Toluene Trichloroethene Trichlorofluoromethane Vinyl Acetate Vinyl Chloride **Other Organics:** 1,4-Dioxane	Alkalinity, total Bicarbonate (as $CaCO_3$) Boron, total Calcium, Hardness Magnesium, Hardness Potassium, total Sodium Total Organic Halogens (TOX) **Field Parameters:** pH Electrical conductivity Temperature Turbidity Dissolved oxygen Redox	**Metals:** Antimony Arsenic Barium Beryllium Cadmium Chromium, total Cobalt Copper Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc **Any other pollutants detected and confirmed in the annual Non-COC scan or added by the Regional Board Executive Officer**

*Any modification to the list of Indicator Parameters evaluated through statistical analysis based on source (leachate) concentration or related information must be fully described in each corresponding semi-annual monitoring report. Only indicator parameters are generally subjected to routine statistical analysis.

Table T-3. Threshold Values* for Well/Mpar Pairs**

Constituent	M04A	M04B	M05A	M11A	RMW6	M10B	EMP4
Total Dissolved Solids	3,647	1,757	1,740	1,463	1,514	1,769	1,276
Chloride	224	77.0	439	82.9	64.5	84.9	58.4
Sulfate	1,752	857	362	596	746	787	515
Ammonia Nitrogen	1.70	1.98	**1.21**	0.41	0.25	-	0.34
Nitrate Nitrogen	-	-	-	-	-	**2.68**	-
Biochemical Oxygen Demand	-	-	10	-	-	-	-
Chemical Oxygen Demand	25	-	58	-	-	-	-
Total Organic Carbon	5.66	1.53	11.7	2.01	1.78	2.19	1.84
Appendix I VOCs	Laboratory practical quantitation limits (PQLs)						

Constituent	M24A	M27B	M29B	M31A	R32B	M33A	R34B
Total Dissolved Solids	-	-	2,329	**2,240**	3,396	2,804	3,442
Chloride	-	-	71.9	**200**	269	212	316
Sulfate	-	-	1120	**772.8**	1692	747	1,773
Ammonia Nitrogen	-	-	0.22	**0.17**	2.85	0.25	2.62
Nitrate Nitrogen	-	-	0.40	-	-	**0.20**	-
Biochemical Oxygen Demand	-	-	-	-	-	-	-
Chemical Oxygen Demand	-	-	-	25	25	**17**	-
Total Organic Carbon	-	-	2.66	**4.7**	4.82	**5.1**	2.85
Appendix I VOCs	Laboratory practical quantitation limits (PQLs)						

Constituent	M41A	M42A	M43A	M47B	R51A	M52B	EMP1
Total Dissolved Solids	-	4,731	2,420	-	-	-	3,827
Chloride	184	281	106	-	-	-	220
Sulfate	1,613	2,585	1,166	2,080	3,748	2.8	1,777
Ammonia Nitrogen	0.23	1.92	0.23	-	0.51	1.25	1.68
Nitrate Nitrogen	1.17	-	0.445	-	-	-	-
Biochemical Oxygen Demand	-	-	-	-	-	-	-
Chemical Oxygen Demand	25	25	25	31	61	35	61
Total Organic Carbon	2.97	3.60	2.75	6.36	9.78	8.95	11.6
Appendix I VOCs	Laboratory practical quantitation limits (PQLs)						

Constituent	EMP2	EMP3	EMP5	EMP6	M15A		
Total Dissolved Solids	1,921	2,149	2,252	991	2,862		
Chloride	224	212	**211**	94.9	**330**		
Sulfate	667	1210	742	415	962		
Ammonia Nitrogen	-	0.93	-	0.284	**0.54**		
Nitrate Nitrogen	3.47	-	-	-	-		
Biochemical Oxygen Demand	-	-	-	-	-		
Chemical Oxygen Demand	25	25	27	25	57.0		
Total Organic Carbon	3.98	1.37	6.32	1.95	17.6		
Appendix I VOCs	Laboratory practical quantitation limits (PQLs)						

* Numerical values in the table are concentration limits in milligrams per liter.

** Highlighted Well/Mpar pairs (bold/underline font) are in tracking mode.

FIGURE 1:
PUENTE HILLS LANDFILL – EXISTING MONITORING WELLS