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

MONITORING AND REPORTING PROGRAM NO. CI-6434
FOR
WASTE MANAGEMENT INCORPORATED
(Bradley Landfill and Recycling Center)

(File No. 78-027)

TENTATIVE

GENERAL

1. Monitoring responsibilities of Waste Management of America (Discharger) for the Bradley Landfill and Recycling Center (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. R4-2010-XXXX (Order).

2. The Discharger shall implement this monitoring and reporting program (M&RP), as described in Section D (Requirements for Groundwater Monitoring) of the Order, starting November 4, 2010.

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 required in 27 CCR section 20420, section 20425, or section 20430, as interpreted in this Order. Groundwater monitoring shall meet the requirements of 27 CCR section 20415(b) and title 40 of Code of Federal Regulations (40 CFR) section 258.51 (a, c, and d), as interpreted in this Order.

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 changes of site condition.

5. Unless otherwise approved by the Executive Officer, groundwater monitoring at the Landfill shall be conducted semi-annually, in April and October 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 this Order, the Landfill's COCs are listed in Table T-2 and consist of all nonhazardous inorganic 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 CFR 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. 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 leachate scan required in this M&RP. At any given time, a COC will be on one of two mutually exclusive lists:

a. Monitoring Parameter (Mpar) List - This list, at any given time, includes several inorganic "Metals Surrogates" which take the place of the 15 federal metallic constituent MPars [as allowed by 40 CFR §258.54(a)(2)], plus all volatile organic compounds (VOCs) that are COCs, plus any former UCOCs (see next paragraph) that have become MPars per Item 10 (Five-Yearly UCOC Scan) of this M&RP.

b. Uninvolved Constituents of Concern (UCOC) List, including all those constituents that have become COCs but are not currently on the landfill's MPar List. UCOCs must be tested at least once every five years at each monitoring well per Item 10 (Five-Yearly UCOC Scan) of this M&RP. During the five-yearly scan-testing, any UCOC that exceeds its respective 85th-percentile-of-the-background-data-set[1] concentration both in the initial sample and in a (pass-1-of-2) single retest sample from the same well moves immediately thereafter to the Landfill's MPar list (ceases being a UCOC) and begins to function as an MPar (i.e., is tested at each compliance well each Reporting Period) beginning with the next Reporting Period.

Table T-1. Required Groundwater Monitoring Wells

Location	Monitoring Wells
Down Gradient	4916D, 4916F, 4916G, 4916H, 4916J, 4916L, 4926C
Off Site	4914G, 4915B
Background	4915A, 4915C, 4915D, 4915E, 4915M

7. 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 nonstatistical data analysis method to this group of background data points to determine its "Threshold Value" (do-not-exceed concentration). An initial 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). By contrast, if a UCOC exceeds its Threshold Value (initially and in its retest), that constituent becomes an MPar (ceases to be a UCOC) and is monitored each Reporting Period thereafter at all compliance wells. 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).

8. 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 12 of this M&RP.

[1] For the purposes of scan-testing of UCOCs every five years, the "Threshold Value" (triggering concentration) for a UCOC is the upper 85th percentile of its respective Concentration Limit (background data set). During the UCOC scan, at any compliance well, if a UCOC exceeds its respective Threshold Value in the initial sample, and also exceeds it in a retest sample from that same well, taken three months later, then that constituent becomes an MPar (and ceases to be a UCOC) instantly. In a case where the UCOC's background data are all below its PQL, then its PQL serves as its Threshold Value.

Table T-2. Constituents of Concern (COC)

Monitoring Parameters (MPars)		Uninvolved COCs (UCOCs)	
Metals Surrogates: chloride nitrate nitrogen pH sulfate total dissolved solids **Field Parameters:** temperature pH electrical conductivity turbidity **Supplemental Monitoring Parameters (not subject to routine statistical tests):** Bicarbonate Alkalinity Total Alkalinity fluoride potassium Soluble BOD Soluble COD TOC	**Volatile Organic Compounds (VOCs):** 1,1,1-trichloroethane 1,1-dichloroethane 1,1-dichloroethene 1,2-dichloroethane 1,2-dichlorobenzene 1,4-dichlorobenzene 1,2-dichloropropane 2-butanone acetone benzene bromodichloromethane chlorobenzene chloroethane chloroform chloromethane cis-1,2-dichloroethene ethyl benzene methylene chloride tetrachloroethylene toluene trans-1,2-dichloroethene trichloroethylene vinyl chloride **Any Other VOCs Detected and Confirmed in Annual Leachate Scans**	**General Parameters:** boron oil & grease iron (soluble) sulfide cyanide total organic carbon total organic halogen **Metals:** Antimony Arsenic Barium Beryllium Chromium, total Cobalt Copper Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc	**Semi-volatile Organic Compounds (SVOCs):** acetophenone bis(2-ethylhexyl)phthalate dimethyl phthalate 2,4-dimethylphenol 2-methylnaphthalene 2-methylphenol 3-methylphenol 4-methylphenol naphthalene phenol **Any other US EPA Appendix II pollutants (except for VOCs) and Emergent Chemicals detected and confirmed in annual Non-COC scans**

Table T-3. Threshold Values for Detection Monitoring Program Wells

Constituent	Unit	4915E	4915M	4916D	4916F	4916G	4916H	4916J	4916L	4926C
Chloride	mg/L	45	55	41	29	40	35	39	33	39
Nitrate Nitrogen	mg/L	6.9	2.2	0.60	1.10	0.90	8.1	1.2	2.3	0.44
Sulfate	mg/L	100	100	58.2	61	62	78	71.6	93	63
pH	mg/L	9.05	8.74	8.62	8.34	8.75	8.64	8.68	9.10	8.26
Total Dissolved Solids	mg/L	410	420	420	640	440	770	780	480	490
Appendix I VOCs	Laboratory practical quantitation limits (PQLs)									

9. Annual Non-COC Scan - Pursuant to 40 CFR 258.55(b), the Discharger shall take one leachate sample from the LCRS at each leachate sump at the Landfill in October 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 M&RP as COCs, and emergent chemicals including 1,4-Dioxane, 1,2,3-Trichloropropane, Perchlorate, and N-Nitroso-dimethylamine (NDMA). If the October 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 April and analyze it for all such new constituents. Any constituents verified in the April

TENTATIVE

retest shall become part of the COC list, with new VOCs going onto the MPar list and all other new COCs going onto the UCOC list. The Discharger shall include a prominent notification of these new COCs in the next scheduled monitoring report.

10. Five-Yearly UCOC Scan - Every five years, starting in 2011, the Discharger shall analyze a sample from each groundwater monitoring point and test for all UCOCs that are present at a concentration in excess of their respective Threshold Value (the upper-85th-percentile-concentration of their background data set). This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d). During each such UCOC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each monitoring well (sufficient to obtain a datum for each UCOC that is subject to the scan). Upon detecting a UCOC 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 UCOC 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).

11. The Discharger shall satisfy all stormwater monitoring requirements pursuant to the Order regulating surface water discharges. Specifically, the Discharger shall satisfy requirements of general NPDES industrial stormwater permit (WDID No. 4 19I005561, enrolled since April 7, 1992), and any revisions to the permit.

DATA ANALYTICAL METHODS

12. 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 May 2011, 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 that replaces 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 M&RP. Concentration limits for new well/COC pairs shall be developed when ten or more data points are available for the well/MPar pair.

13. Statistical Data Analysis Methodology

    a. For the purposes of this M&RP, Minimum Level (ML) and Reporting Limit (RL), as described in Attachment 1, 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)(1), any of the better-performing resting 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 nonstatistical method used for data analysis shall use a pass-1-of-2 retesting approach as provide in Item 14.b. of this M&RP. The retest is part of the data analysis method, therefore, a measurably significant increase (or for a UCOC scan, a measurably significant indication that the constituent should become an MPar) 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 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 ground water.

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 in Tracking Mode, its Threshold Value automatically becomes the mean of its Concentration Limit (background data set), which should be plotted as a horizontal line on its concentration-versus-time plot. The goal is to indicate when the applied corrective action measures have brought the MPar's concentration down to, or below, this concentration. These plots shall be the primary

input for the Discharger's twice-yearly 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 the five-year scans under Item 10 of this M&RP, or 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 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. 14 of this M&RP.

14. 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. 14(a)(i) of this M&RP (or, for each retest sample, the modified scope list of Item No. 14(b)(ii)).

i. Scope List – Within 90 days of the effective date of this 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. 14(a)(i), above, for an initial test (or, for a retest, the modified scope list under Item No. 14(b) 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. Five or more of the MPars on a monitoring well's scope list exceed their respective MDL; or

TENTATIVE

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. 14(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 sample only for those constituents indicated in that well's original test, under Item No. 14(a)(ii) of this M&RP, 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. 14(a)(ii) above, but using this modified scope list) to separately analyze the retest data at that compliance well.

iii. If the retest sample trips either (or both) of the triggers under Item No. 14(a)(ii), 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. 13(f)(ii) of this M&RP) at that well; shall eliminate it from the "scope list" [under Item No. 14(a)(i) of this M&RP] for that well during future runs of this nonstatistical 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.

15. 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's summary and the report shall include an explanation for the change that is approved by the owner/director of the analytical laboratory.

16. Data analysis shall be carried out as soon as the data is available in accordance with statistical and non-statistical analyses requirements described in this M&RP.

TENTATIVE

SAMPLING AND ANALYTICAL PROCEDURES

17. 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 M&RP, 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 method, equipment, and analytical detection limits, the recovery rates, an explanation (corrective action) of any QA/QC measure that is outside the laboratory control limits, the results of equipment and 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.

    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

TENTATIVE

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 for an analytical methodology to report unknown chromatographic peaks, along with an estimate of the concentration of the unknown analyte.

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 flagged.

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

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

20. 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.

21. 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.

22. Thirty-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 thirty 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 thirty days, the Discharger shall report the sampling period in the corresponding semiannual report.

23. 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)(13)]; 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 M&RP. All field parameter measurements shall be included in the semiannual reports submitted to the Regional Board.

24. 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

25. Semiannual and annual monitoring reports for the Landfill shall be submitted to the Regional Board pursuant the following schedule.

Report	Period	Date Due
1st Semiannual	January - June	September 15th
2nd Semiannual	July - December	March 15th
Annual	January – December	March 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 the Order and this M&RP.

26. Electronic submittal and hardcopies of report - The Discharger shall continue submitting monitoring reports required under this M&RP to the State Board GeoTracker System. In addition, a hardcopy that contains the transmittal letter, the main report text, any tables and/or figures that are directly quoted in the main report text shall be submitted to the Regional Board office by the due date. The hard copy shall include a compact disk (or other appropriate media) that contains all contents of the report (in PDF or other suitable format), including any laboratory reports, quality assurance and quality control (QA/QC) data, and filed records that are used in the report. All original laboratory reports, quality assurance and quality control (QA/QC) data, and filed records must be kept in the Landfill's operating record, as required in 27 CCR section 20415(e)(16). These data must be available for Regional Board staff review, if required.

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 G.8 of the Order.

30. Where to submit - All reports required in this M&RP 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-6434) shall be clearly displayed on the cover pager of each report.

31. Semiannual monitoring reports 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 non-compliance with discharge requirements.

        v. A separate appendix containing any revised COC List (showing its then-current MPar and UCOC Lists reflecting any constituent added or constituent moved from the UCOC List to the 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 per Item 7 of this M&RP.

        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 (out of compliance) 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 reuse water (if the Discharger proposes reuse), shall be summarized in the report. For each report, include laboratory statements of results of all analyses demonstrating compliance with Item No. 17 of this M&RP;

d. A summary and certification of completion of the routine inspections required in Section C.14 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. Wastewater reuse (if the Discharger proposes 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.

T E N T A T I V E

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.

f. 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.

g. 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. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. 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 20340 (b-d);

e. A evaluation of the effectiveness of the CAP pursuant to section 20080(a)(1) of 27 CCR and any further corrective actions proposed for the next monitoring period; and

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 G.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 M&RP using approved analytical methods, the results of those analyses shall be included in the monitoring program.

Ordered by _____
Samuel Unger, P.E.
Executive Officer
November 4, 2010