California Regional Water Quality Control Board
Los Angeles Region

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Arnold Schwarzenegger
Governor

June 15, 2010

Brent Anderson
Waste Management, Inc.
1211 West Gladstone Street
Azusa, Ca 91702

MONITORING AND REPORTING PLAN – AZUSA LAND RECLAMATION LANDFILL, WASTE MANAGEMENT, INC., AZUSA, CA (FILE NO. 59-102 ORDER R4-2009-086, CI-2567)

Dear Mr. Anderson:

Reference is made to Regional Board Order No. R4-2009-0098, adopted on September 3, 2009, which incorporates revised waste discharge requirements (WDRs) and a monitoring and reporting program (M&RP) for the Azusa Land Reclamation Landfill (Landfill). The WDRs require revision of the M&RP based upon further analysis of collected data. Reference is also made to your report, Technical Report, Landfill Evaluation Update and Monitoring and Reporting Program, submitted on January 1, 2010, by your consultant, Todd Engineers. The report summarizes data and analysis methods at the Landfill since 1996 and provides the basis for updating the Landfill M&RP.

The revised M&RP (enclosed) is effective immediately. However, recognizing the limited time available for completing the current sampling and analysis event, the reporting date for the first monitoring and reporting event is September 15, 2010. After the first monitoring and sampling event, the due dates provided on the M&RP will be in effect. For recipients on the mailing list, a hard copy of the M&RP will be furnished upon request.

If you have any questions, please call Mr. Douglas Cross at (213) 620-2246 or Dr. Enrique Casas at (213) 620-2299.

Samuel Unger

Samuel Unger, P.E.
Interim Executive Officer

Enclosure: Monitoring and Reporting Program (Attachment T)

cc: Carol Williams, Main San Gabriel Basin Watermaster
Pete Oda, Los Angeles County, DHS
Damon De Frates, Waste Management, Inc.
Anthony Pelletier, Allied Waste Services/BFI
Tom Gardner, Allied Waste Services/ BFI
Phyllis Stanin, Todd Engineers

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

MONITORING AND REPORTING PROGRAM (No. CI-2567)
FOR
WASTE MANAGEMENT
(AZUSA LAND RECLAMATION LANDFILL)

Waste Management Incorporated (Discharger) shall implement this revised monitoring and reporting program (M&RP[1]) at the Azusa Land Reclamation Landfill (Landfill) beginning immediately.

I. REQUIRED REPORTS AND CONTINGENCY RESPONSE

The Discharger shall submit the following reports to the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) in accordance with the schedules specified.

A. SEMI-ANNUAL MONITORING REPORTS

A monitoring report shall be submitted semi-annually and an annual summary report is due by the following dates of each year:

Report	Date due to this Regional Board
January 1 to June 30	August 15
July 1 to December 31	February 15
Annual Report	February 15

Semi-annual reports shall include, but should not be limited to, the following:

1. Transmittal Letter: A letter transmitting the essential points, as described below, shall accompany each report. The letter shall identify any violations occurring since the last report, shall include a discussion of how and why the violations occurred, 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. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

2. Summary of Non-Compliance – The report shall contain a summary of non-compliance that 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. Significant aspects of any on-going corrective action measures (CAMs) conducted during

[1] Terms and acronym used in this Program are defined in Attachment A of Board Order R4-2009-0098 as well as Section 20164 of 27 CCR.

the monitoring period shall also be summarized. This section shall include a listing of each well/MPar pair that has changed its mode (detection mode, tracking mode, or Phase I proof mode), together with any new constituent of concern (COC) identified, new compliance or background well installed, and any COC that has changed from the Landfill's uninvolved COC (UCOC) list (COCs that are scanned at each monitoring point (MPt) well every five years) to its monitoring parameter (MPar) list, during that reporting period. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all exceedences of water quality protection standards. For the first reporting period in which this M&RP is implemented (2nd quarter 2010) the Summary of Non-Compliance section will establish initial COC, MPar, and UCOC lists, as well as modes for each well/MPar.

3. Site Conditions: General discussion of site conditions (geology, climate, 100-year 24-hour storm, and watershed specifics, etc.) relative to water quality monitoring, including monthly ground water contour maps of sufficient scope to identify ground water recharge and extraction areas that may impact ground water elevations and flow direction and gradient at the Landfill.

4. Narrative Description: A narrative discussion of the site's various monitoring activities and results. Each requirement of Part II of this M&RP shall be specifically discussed.

5. Graphical Presentation of Analytical Data: For each well/MPar pair that is no longer in detection mode, as well as all supplemental parameters listed in Table T-2, below, submit in graphical format the laboratory analytical data for all samples taken within at least the previous ten calendar years, as a concentration-versus-time plot. Each such graph shall plot the concentration of the monitoring data for that well/MPar pair together with a similar plot of the background data set (concentration limit) with both plots at the same scale, which scale shall be appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed (each MCL concentration as a horizontal line on the plot) along with constituent concentrations where applicable. 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.

6. Laboratory Results: Laboratory results and statements demonstrating compliance with Part II of this M&RP.

7. Management of Liquids: A summary of the total volumes, on a monthly basis, of landfill leachate, gas condensate, and contaminated subdrain water extracted at the site, and how these liquids are handled.

8. Waste Disposal Reporting: Waste disposal activities at the site, including:

   a. A tabular list of the estimated average monthly quantities (in cubic yards and tons) deposited each month.

   b. An estimate of the remaining capacity (in cubic yards and tons) and the remaining life of the site in years and months.

c. A certification that all wastes were deposited in compliance with the Regional Board's requirements, and that no wastes were deposited outside of the boundaries of the waste management area as specified in the Regional Board's requirements.

d. The estimated amount of water used at the waste management area for landscape irrigation, compaction, dust control, etc., during each month. (If a source other than potable water is used, the sources and amounts of water from each source shall also be reported.)

e. The Discharger shall report all unacceptable wastes inadvertently received at this site and their disposition. The following details shall be included:

i. The source (if known), including the hauler, of the unacceptable wastes and date received and/or discovered.

ii. Identification of waste (if known) and the amount of waste.

iii. The name and address of the hauler who removed the waste from this site.

iv. The ultimate point of disposal for the waste.

v. The Discharger's actions to prevent recurrence of the attempted depositing of unacceptable wastes by this source or individual.

If no unacceptable wastes were received (or discovered) during the month, the report shall so state.

9. Map(s): Map(s) or aerial photograph(s) showing waste disposal and monitoring locations, relative physical features, and include monthly contour maps showing impacts from groundwater pumping and spreading within the vicinity of the Landfill on the groundwater monitoring system for the Landfill.

B. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual summary report to the Regional Board covering the previous monitoring year. The annual monitoring period ends December 31. This report may be combined with the second semi-annual report of the year and shall be submitted no later than February 15 of each year. The annual summary report shall include at least the following:

1. Discussion: Include a comprehensive discussion of the compliance record, any significant monitoring system and operational changes, a summary of corrective action results and milestones, and a review of construction projects, with water quality significance, completed or commenced in the past year or planned for the up-coming year.

2. The accompanying annual CAMs effectiveness analysis shall address the following issues, by reference both to these tracking mode well/MPar pair plots and to the proportion of release-affected well/MPar pairs that have transitioned to Phase 1 proof mode:

a. Each such plot shall show a horizontal line indicating the concentration limit (background data set's) non-parametric upper prediction limit (UPL) value, and the

submittal shall include a discussion as to whether the CAMs are proving effective at bringing each released waste constituent back down to its respective background concentration limit value at a rate that will result in the Landfill's coming back into compliance with its water quality protection standard within a foreseeable period of time. For any MPar in tracking mode at one or more MPt wells, if this analysis cannot verify that the CAMs are achieving this goal, the report shall propose an updated suite of CAMs that will achieve this goal; likewise,

b. For any instance in which an MPt well that was previously unaffected by the release (i.e., all MPars were in detection mode at that well in the previous annual report), transitions to tracking mode (release indication), the report shall include a proposed revision to the CAMs such that the release will not continue to expand beyond its footprint as of the adoption date of the CAP WDRs.

The change from a semi-annual CAMs effectiveness analysis to this annual approach is taken pursuant to title 27, California Code of Regulations (27 CCR) §20080(a)(1), given that the reliability of trend inferences of such a report is improved by addressing the prior two new data points at each release-affected (tracking mode) well/MPar pair, rather than the single new datum that would be available under a semi-annual approach.

3. Analytical Data: All monitoring analytical data obtained during the previous year, presented in tabular form. Additionally, complete data histories of each well shall be submitted in an electronic format acceptable to the Regional Board.

4. Map(s): Map(s) showing the areas where any significant events have taken place during the previous calendar year and, for final-closed portions of the Landfill, the degree, and location, of differential settlement noted in the final cover.

5. M&RP Appendices Updated Annually — An update to any of the following appendices to this M&RP, as needed to reflect any change, therein, since the prior annual report. [Appendices for the first year will describe development of the following information]:

   a. The concentration limits, modes (MPar), and 85th percentiles of background by Well/COC Pair listing for each well/COC pair as developed pursuant to section E of Order No. R4-2009-0098 and described in subsequent sections of this M&RP;

   b. The data analysis methods listing for each well/MPar pair as developed pursuant to section E of Order No. R4-2009-0098 and described in subsequent sections of this M&RP; and

   c. The MPar list and UCOC list as developed pursuant to section E of Order No. R4-2009-0098 and described in subsequent sections of this M&RP to reflect any new COCs for which the background data is being collected for each well/COC pair, any new COC added to the MPar list or UCOC list, any new MPt well for which concentration limits for each existing MPar and UCOC are being developed, and any COC that has moved from the UCOC list to its MPar list.

C. CONTINGENCY RESPONSE

1. Leachate Seep: The Discharger shall, within 24 hours of discovery, report to the Regional Board by telephone or e-mail any previously unreported seepage from the Landfill. A written report shall be filed with the Regional Board within seven days, containing at least the following information:

   a. Map - A map showing the location(s) of seepage.

   b. Flow rate - An estimate of the flow rate.

   c. Description - A description of the nature of the discharge (e.g., all pertinent observations and analyses).

   d. Location - Location of sample(s) collected for laboratory analysis, as appropriate.

   e. Corrective measures - approved (or proposed for consideration) by the Executive Officer.

2. Response to an Initial Indication of a Release: Should the initial statistical or non-statistical comparison (for a given reporting period) indicate that the existing release is tentatively identified by analysis of the beginning-of-reporting-period sample for any detection mode well/MPar pair, the Discharger shall:

   a. Within 24 hours, verbally notify the designated Regional Board staff contact as to the monitoring point(s) and constituent(s) or parameter(s) involved;

   b. Provide written notification by certified mail within seven days of such determination; and

   c. Do either of the following:

      i. For a well/MPar pair whose background reference dataset includes one or more detections, use a statistical data analysis method with a pass-1-of-3 retesting approach in accordance with section II.B.8 of this M&RP. If the retesting confirms the release indication, or the Discharger fails to perform the retest, the Discharger shall immediately change that well/MPar pair to tracking mode and shall carry out the response requirements in section I.C.4. In any case, the Discharger shall inform the Regional Board of the retest outcome within 24 hours of results becoming available, following up with written results submitted by certified mail within seven days, or

      ii. For a well/MPar pair whose background reference dataset is all non-detects (NDs), use the double quantification rule non-statistical data analysis method[2] with a pass-1-of-2 retesting approach and response actions described in subsequent sections of this M&RP.

[2] In case the retest is triggered by detections of common laboratory contaminants (i.e., acetone, toluene, methylene chloride, and carbon disulfide) the Discharger shall remove that volatile organic compound (VOC) from the scope list for that MPt well and shall begin analyzing it using an approved statistical method beginning with the next reporting period.

d. If a data analysis (under C.2.c) provides a verified transition to tracking mode for any well/MPar pair, and the Discharger believes that this indication is in error, the Discharger can make a demonstration, in accordance with 27 CCR section 20420(k)(7), that a source other than the waste management unit caused the release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in the groundwater, surface water, or the unsaturated zone. If the Executive Officer agrees with the Discharger's demonstration, the affected well/MPar pair(s) can return to detection mode.

3. Physical Evidence of a Release: If either the Discharger or the Executive Officer determines that there is significant physical evidence (27 CCR, section 20385(a)(3)) that the existing release to groundwater has extended beyond the geographic area it covered as of the adoption date of Order No. R4-2009-0098, the Discharger shall conclude that the existing CAMs are inadequate and shall:

   a. Within seven days notify the Regional Board of this fact by certified mail (or acknowledge the Regional Board's determination).

   b. Carry out the requirements of section I.C.4., below and

   c. Carry out any additional investigations stipulated in writing by the Executive Officer for the purpose of identifying the cause of the indication.

4. Release Discovery Response: If either the Discharger or the Executive Officer concludes that a release has been discovered, the following steps shall be carried out:

   a. Release is Expanding: If this change involves the transition from detection mode to tracking mode for any MPar at a MPt well that is located outside the geographical area the release covered as of the date of adoption of Order No. R4-2009-0098, the Discharger shall, within 90 days, submit an Amended report of Waste Discharge proposing and substantiating a revised suite of CAMs that will prevent the release from extending any further into previously-unaffected portions of the aquifer.

   b. New Constituent in the Release: If this change involves the transition from detection mode to tracking mode at any MPt well for a constituent that is in detection mode at all other MPt wells, the Discharger shall conclude that a new constituent is actively involved in the release and shall, within 90 days thereafter, submit an amended CAMs effectiveness analysis that includes a determination as to whether the existing CAMs are adequate to remediate the new release constituent and, if not, proposing and substantiating a suite of revised CAMs that will provide effective remediation of all released constituents, including this new one.

   c. Minor Change Within the Release Footprint — If this change involves the transition from detection mode to tracking mode at any MPt well for a constituent that is in tracking mode at one or more wells within the geographic area of the release (as of the adoption date of Order No. R4-2009-0098), the Discharger shall note this change prominently in the next monitoring report and the annual monitoring report.

   d. Apparent Return to Compliance — Any time a well/MPar pair in tracking mode has two reporting periods in a row in which each compliance datum for that pair plots at-or-

below the concentration limit (non-parametric UPL) background concentration (the horizontal line showing the concentration limit background concentration), that well/MPar pair shall transition automatically from tracking mode to Phase I proof mode and the Discharger shall indicate this change immediately to their Regional Board contact (by phone or e-mail), shall highlight that change in the next monitoring report for that reporting period and in the annual summary monitoring report, with special focus on that change in summary report's CAMs effectiveness analysis required under B.2.

5. The entirety of the Landfill footprint is covered by the commingled regional groundwater contamination plumes of the Baldwin Park Operable Unit (BPOU), where the United States Environmental Protection Agency (USEPA) is conducting oversight of downgradient pump and treat wells, and where affected parties have already been notified. The Discharger is cooperating with USEPA on the BPOU remediation by participating with other cooperating parties in managing the ongoing remediation, and by providing monitoring data from Landfill wells and annual corrective action reports to the USEPA. These activities satisfy the requirement to notify all persons who own or reside on the land that directly overlies any part of the plume of contamination if contaminants have not migrated beyond the already-impacted area of the BPOU.

D. SUBMITTING OF REPORTS

1. Each monitoring report shall contain the following statement:

   "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]"

2. A duly authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;

   b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and

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

3. The Discharger shall submit all scheduled reports required in this M&RP electronically, in accordance with section 3890 et. seq. of the 23 CCR, division 3.

   a. Persons responsible for submitting reports pursuant to this Chapter shall submit the following information described in subdivision (b) electronically over the Internet to the State Board's Geotracker system in conformance with data dictionaries found in Title 27, Division 3, Subdivision 2 (Monitoring and Release Information) and specifications contained in the State Water Resources Control Board Electronic Delivery Format (EDF) Guidelines and Restrictions (version 1.2i) and Survey XYZ Guidelines and Restrictions (Version 6). These data dictionaries and documents are available through links provided at http://www.swrcb.ca.gov/ust.

b. Data generated after the effective date of the regulations by chemical analysis of soil, vapor, or water samples (including surface water, groundwater and influent/effluent water samples from remediation systems), shall be submitted in EDF format. All data submitted in EDF format shall be checked for errors prior to and during submittal using the Electronic Deliverable Consistency Checker (EDCC) software consistency-checking tool. All data submitted in EDF format must pass this error-checking tool as well as meet normal regulatory requirements in order to be considered valid data. In addition, when required for reports subject to this Chapter, the following shall also be submitted electronically:

   i. The latitude and longitude of any permanent monitoring well for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two reference points from the California Spatial Reference System (CSRS-H), if available.

   ii. The surveyed elevation relative to a geodetic datum of any permanent monitoring well.

   iii. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevation.

   iv. A site map or maps showing the location of all sampling points referred to in the report.

   v. The depth to the screened interval and the length of screened interval for any permanent monitoring well.

   vi. Boring logs, in PDF format.

   vii. A complete copy of the report, in PDF format, which includes the signed transmittal letter and professional certification.

c. All deadlines and timeframes for submittals of reports are applicable to the information submitted electronically pursuant to this Chapter.

4. The electronic report submittal to Geotracker is intended to replace the need for a paper copy and will be used for public information requests, regulatory review, compliance, and enforcement activities. However, a hard copy of the report shall also be submitted to the Regional Board until the Discharger has proven proficiency in electronic submittals using the Geotracker system, pursuant to approval by the Executive Officer. An acceptable alternative for hard copy reports is that appendices, field records, and laboratory reports, may be included on a compact disk that contains all the information electronically.

5. 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

II. REQUIRED MONITORING AND INSPECTIONS

The Discharger shall conduct the following monitoring and inspections at the Landfill. Unless otherwise indicated, all monitoring data and inspection results shall be reported to the Regional Board as outlined in section I of this M&RP. In addition, Regional Board staff shall conduct annual testing appropriate to confirm the accuracy of the Discharger's self monitoring.

A. ENVIRONMENTAL MONITORING NETWORKS

The Discharger shall conduct semi-annual analytical monitoring on groundwater, quarterly retesting of groundwater, quarterly monitoring of the vadose (unsaturated) zone and annual analytical monitoring for leachate at the Landfill. The current environmental monitoring points for the Landfill are summarized in Table T-1 and their locations are displayed on Figure T-1.

B. ANALYTICAL MONITORING

1. Annual Leachate Quality Monitoring and Development of COC List – A representative leachate sample shall be collected annually from the Zone II LCRS sump and analyzed for all 40 CFR Part 258 Appendix II constituents, beginning with the first sampling event following approval of the revised M&RP. For each constituent that is detected at or above its practical quantification limit (PQL), an additional leachate sample shall be collected within three months after the initial detection date. If the same constituent is detected at or above its respective PQL in both the initial and retest leachate samples, the constituent shall become a COC (pass 1-of-2 retest). Once a constituent becomes a COC, it shall remain on the COC list for five years even if the constituent is not detected at or above its PQL in subsequent annual leachate samples. If the constituent is not detected within five annual leachate monitoring events it shall be removed from the COC list. This process of leachate monitoring, retesting, and COC list development is illustrated by the three boxes at the top of the M&RP process diagram shown on Figure T-2.

2. Groundwater Analytical Monitoring — Groundwater sampling of the wells listed in Table T-1 shall occur on a semi-annual basis (typically in April and October). Wells ALR-3, ALR-9, and ALR-10 are background wells and wells ALR-1R, ALR-2R, and ALR-8 are compliance wells. Monitoring locations are shown on Figure T-1. During each reporting period, background and compliance wells shall be sampled for each constituent on the MPar and supplemental parameter lists. In addition, background wells shall also be sampled for constituents on the COC list (including the UCOC list) to update the reference background dataset.

3. Monitoring Parameters (MPars), Supplemental Parameters, and UCOC lists: Collectively, these lists contain the constituents monitored in groundwater during each reporting period and are represented by the three middle boxes on Figure T-2, which summarizes the M&RP process. The MPar list consists of both designated constituents that may be indicative of a release from the Landfill as well as constituents derived from the leachate COC list (described in section II.B.1). Constituents from the leachate COC list are designated MPars if concentrations in compliance wells exceed the 85th percentile of the background reference data set as described in section II.B.4. Table T-2 summarizes the current MPar and supplemental parameter lists. Current groundwater MPars, supplemental parameters, and UCOCs at the Landfill are described below:

a. Monitoring Parameters (MPars) consist of the 17 Appendix II metals and Landfill Cleanup and Abatement Order (CAO) constituents (chlorobenzene, 1,2-di chlorobenzene (DCB), and 1,4-DCB) as listed on Table T-2. For the Appendix II metals, dissolved (field-filtered) metal concentrations shall be monitored in groundwater to more accurately represent the actual metal concentrations. The MPar list will be updated annually with any COCs on the leachate COC list that become MPars as describe in section II.B.4 below. These constituents are considered capable of providing reliable indication of a release from the Landfill. The Discharger shall apply the statistical analyses described in section II.B.8. or non-statistical analysis in section II.B.9. of this M&RP to analyze all groundwater monitoring data obtained under this program. Appendix I VOCs that are typically MPars at solid waste facilities are not included for this site due to the large concentrations of VOCs in background wells due to the regional VOC plumes sourced offsite and associated with the BPOU Superfund site. Instead, 3 Appendix I VOCs associated with the Landfill are included as MPars and 20 regional Appendix I VOCs including 1,4-Dioxane are included as supplemental parameters.

b. Supplemental parameters are constituents that provide important information regarding groundwater geochemistry but are not expected to indicate a Landfill release. Inorganic constituents and physical properties that provide groundwater chemistry information are shown on the supplemental parameters list for the Landfill on Table T-2. Also included on the supplemental parameter list are VOCs and other organic and inorganic constituents detected in the regional BPOU plumes including the emergent compounds required for sampling under CAO 99-119. Monitoring data for the supplemental parameters will generally be used for informational purposes only and will not be subjected to routine statistical analysis. However, key supplemental parameters shall be routinely tracked and discussed in monitoring reports.

c. UCOCs: COCs identified through leachate monitoring that have not been detected above the 85th percentile of the background reference dataset in a compliance well shall be included on the UCOC list. Background wells shall be analyzed for the UCOCs to update the background reference dataset. Every five years, compliance wells will also be analyzed for constituents on the UCOC list. If any constituent on the UCOC list is detected above the 85th percentile of its reference background dataset in a compliance well (under a pass 1-of-2 retest strategy), the constituent shall be moved from the UCOC list to the MPar list.

4. Ongoing Background Well Testing and Background Reference Dataset - The Discharger shall continue to monitor background wells for each MPar and COC each time that MPar or COC is monitored at downgradient wells. Water quality data obtained from background wells shall be processed and reported the same way as detection monitoring wells. Background well data will be used to develop a background reference dataset. This dataset will be used to assign COCs identified through leachate monitoring to either the MPar list or UCOC list based the concentration in any compliance well relative to the 85th percentile concentration of the reference background dataset. Groundwater samples collected from background wells ALR-3, ALR-9, and ALR-10 over the previous 10 years shall be pooled into a single background dataset for comparison with concentrations in each compliance well. The dataset will be updated with each semi-annual monitoring event. The 85th percentile for each COC will be determined using these combined data. Background wells shall be sampled for any new COC during the semi-annual monitoring events to compile a

reference background dataset of at least 36 pooled background samples. At that time, the 85th percentile will be identified and tested against compliance well data. The reference background dataset for new COCs will continue to grow and ultimately include all samples within the intended 10-year reference background concentration time window with the reporting period representing the end of the time window. Once the reference background dataset includes samples spanning 10 years, new background data shall replace the oldest data in the reference background data for each subsequent reporting period.

Figure T-3 is a process diagram for calculation of the 85th percentile of the reference background dataset. If the reference background dataset is comprised of 100 percent non-detects (NDs), the reporting limits (RLs) of all background samples are ranked from lowest to highest, and representative percentiles for each RL are calculated using the formula P = 100 * i/(n+1), where P is the percentile (%), i = concentration ranking (minimum concentration = 1, etc.), and n = total number of samples in the dataset. The 85th percentile concentration of the reference background dataset is the 85th percentile RL (if exact) or interpolated from the RLs immediately above and below the 85th percentile.

If the reference background dataset includes one or more detections, all NDs with RLs greater than the highest detected concentration are removed from the dataset. Concentrations are then preliminarily ranked from lowest to highest (for NDs, the RL is used in the ranking), and representative percentiles for each concentration are calculated from the remaining dataset using the same equation as described above. If the 85th percentile concentration is greater than the highest RL of NDs, then the 85th percentile concentration of the reference background dataset is the 85th percentile concentration of the dataset (if exact) or interpolated from the concentrations immediately above and below the 85th percentile. If the 85th percentile concentration is less than the highest RL of NDs, then percentiles for the dataset must be re-calculated using the Kaplan-Meier Method, the standard method for estimating summary statistics of censored survival data (Helsel, 2005). The 85th percentile concentration of the reference background dataset is the 85th percentile (if exact) or interpolated from the concentrations immediately above and below the 85th percentile (Figure T-3).

5. Development and Updating of Concentration Limits – The Discharger shall continue to develop and update concentration limits following the procedures provided in section II.B.8.a. of this M&RP. The Discharger shall review concentration limits in its annual reports submitted to the Regional Board. When appropriate, new concentration limits shall be proposed.

6. Groundwater Quality Monitoring – The Discharger shall conduct the following groundwater monitoring activities at the Landfill:

   a. Semi-annual monitoring shall be conducted at all background and compliance groundwater monitoring wells. Water samples from these monitoring points shall be analyzed for MPars and supplemental parameters on a semi-annual basis. Background wells will also be monitored for any constituents on the COC list that are not MPars or supplemental parameters (including UCOCs) to continue to develop the background reference dataset;

   b. Five-Yearly COC Scan - Every five years, starting in April 2011 (after the initial COC list has been developed), the Discharger shall analyze a sample from each compliance

ground water monitoring well for the detectable presence (including trace determinations) of all COCs that are not yet on the monitoring parameter list (UCOCs). This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d).

i. During each such COC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each compliance monitoring well (sufficient to obtain a datum for each COC that is subject to the scan). Upon detecting a COC above the 85th percentile of the reference background dataset that is not yet on the MPar list, the Discharger shall take a single resample from the indicating affected well(s) the next quarter and reanalyze it only for the newly-detected constituent(s).

ii. Any COC detected in samples collected from a compliance groundwater monitoring well above the 85th percentile of the reference background dataset, and verified by a retest becomes an MPar for the facility. This constitutes the means by which the Discharger shall meet the requirements of 40 CFR 258.55(d)(2).

7. Concentration Limits and the Analysis of Monitoring Data - All well/COC pair testing for the Landfill shall use an upgradient-downgradient comparison approach whereby the concentration limit (reference background data set) is derived from three background wells. These data are compared against a recent datum from a compliance well. (Given the significant shifts in groundwater flow direction at this site, background data are pooled into one dataset rather than trying to select one specific background well that stands along the travel path that a release would take).

a. Moving Window Concentration Limits — The basis for any statistical or non-statistical detection mode test for a well/MPar pair (to identify a waste release indication for that MPar at that well) is the pair's respective background reference dataset (used to establish a concentration limit as described below). For any well/UCOC pair, during a UCOC scan of compliance wells, the 85th percentile of the well/UCOC pair's data serves as a reference concentration which, if exceeded in the initial scan and the single retest, causes the UCOC to be monitored, thereafter, as an MPar at all compliance wells. Thus, all COCs (whether they are an MPar or a UCOC) must be assigned an 85th percentile value and a concentration limit.

i. Moving Window Concentration Limits for Extant COCs — For all COCs that are on MPar and UCOC lists as of the effective date of approval of this revised M&RP, its respective concentration limit, as of that adoption date, consists of all validated data from the proposed upgradient background wells for that MPar from the previous 10-year period, and that initial background data set shall be updated continually, as follows. Each reporting period thereafter, the new background data points (from background wells for that MPar) shall replace the oldest data. The Discharger shall report the updated background dataset, for each such well/COC pair, in each annual summary monitoring report. Likewise, the annual summary monitoring report shall present a listing consisting of a detailed listing of the data analysis method used for each well/MPar pair.

ii. Concentration Limits for New COCs — For any non-COC Appendix II constituent that is identified at any concentration above its respective PQL in the initial sample of the annual leachate scan and that exceeds its PQL in the subsequent Reporting-

Period (pass-1-of-2 approach) retest becomes a new COC for the Landfill. For any such new COC, whether it is a new MPar or a new UCOC, the Discharger shall sample all background wells each reporting period at least once, thereafter, and shall add the new background datum (from a given background well) to the concentration limit for that COC at each compliance well until adding each such new background datum to the constituent's concentration limit at each compliance well that derives its background dataset (to calculate the concentration limit using statistical methods as described below) from background wells. Note that this means that the UCOCs will be sampled at each background well each reporting period even in reporting periods for which there is no UCOC scan. This concentration limit expansion shall continue until the concentration limit "sample size" (i.e., the number of data points) equals 36, at which point the concentration limit for that COC at each compliance well shall be handled (from then onward), instead, as described in section II.B.8.a.i.

iii. Concentration Limits at a New Compliance Well — Any time the Discharger installs, or the Regional Board Executive Officer requires the Discharger to install, a new compliance well, the Discharger shall follow the concentration limit development approach described in B.8.a.ii for all COCs, and shall carry out the semi-annual background sampling at the existing-or-new background wells.

b. Statistical Methods — Well/MPar pairs having a background data set in which two or more data points exceed the constituent's respective method detection limit (MDL) shall use the statistical method to set a concentration limit, under a pass-1-of-3 retesting approach: non-parametric upper prediction limit (UPL) designating the second highest concentration in the background reference dataset as the concentration limit (2^{nd} maximum). For any MPar with only one detection in the background reference dataset, the detected value will be the concentration limit. For any well/MPar pair for which its concentration limit contains trace determinations, the Discharger shall substitute for each such determination its estimated concentration (often called its "J-value") and proceed with applying the statistical method. If the concentration limit data set contains only "ND" values, the Discharger shall apply the non-statistical data analysis method (under a pass-1-of-2 retesting approach). By the end of the first reporting period following adoption of Order No. R4-2009-0098, the Discharger shall submit, as part of the monitoring report for that reporting period, the derived statistical power curve for each detection mode well/MPar pair that uses the non-parametric UPL method. The power curve shall demonstrate that the method beats the USEPA's reference power curve, given the background sample size (number of data points in the concentration limit), the transformation formula applied (if any), the method settings (e.g., an error rate {alpha} less than 0.01), and the pass-1-of-3 retesting approach the Discharger is applying to the analysis of that detection mode well/MPar pair.

c. Non-statistical Method — For any MPar in detection mode which has never been detected above its respective PQL, the Discharger shall apply the double quantification rule. This method states that a confirmed increase above background is registered if an MPar is detected above its respective PQL in both initial and re-test samples (pass one of two) for the same compliance well. A retest sample will be collected within three months of the first detection.

d. Mode-Based Water Quality Monitoring Approaches — The monitoring approach used for each monitoring parameter at each MPt well (well/MPar pair) shall be controlled by its respective compliance status mode (mode), as follows:

i. Detection Mode —Any well/MPar pair that has not produced a measurably significant increase is in "detection mode." The purpose of monitoring in detection mode, for that well/MPar pair, is to watch for the MPars arrival at that well at a concentration strong enough to trigger a measurably significant release-detection indication using the statistical or non-statistical data analysis methods described above. Given a measurably significant indication (including retesting), the well/MPar pair automatically switches to "tracking mode," and the Discharger provides the appropriate response under section I.C.4;

ii. Tracking Mode —A well/MPar pair that has produced a measurably significant increase moves from detection mode to tracking mode. The purpose of the tracking mode monitoring is to verify the suitability and effectiveness of the existing CAMs by tracking changes in the MPar concentration at that location via an evolving concentration-versus-time plot (new background data points and new compliance data points each go to their respective graph on that plot). These plots are used in the annual CAMs effectiveness analysis that is included in the annual summary monitoring report (see section I.B.2). Any time that all of the newest compliance data points for that well/MPar pair, covering two consecutive reporting periods, plot at-or-below the then-current background concentration limit, the well/MPar pair switches automatically to Phase 1 proof mode, given that there is a good likelihood that it has returned to compliance with its respective concentration limit, and the Discharger reports this to the Regional Board contact immediately, declares it prominently in the monitoring report for that reporting period, and includes discussion of the change in the annual CAMs effectiveness analysis; or

iii. Phase 1 Proof Mode — For a well/MPar pair in Phase 1 proof mode, the monitoring goal is to continue tracking the pair's apparent return to compliance with its respective concentration limit. As such, the Discharger continues to plot new compliance and background data points on the well/MPar pair's concentration-versus-time plot, just as is done under tracking mode. For any well/MPar pair in Phase 1 proof mode, the Discharger shall discuss the pair's ongoing apparent state of compliance, by reference to where the most recent data points have plotted, relative to the background concentration limit, in the annual CAM effectiveness analysis (see section I.B.2).

8. 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 (DMP, EMP, AMP, or CAP), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" in section II.B.9.a.i. of this M&RP (or, for each retest sample, the modified scope list of section II.B.9.b.ii.

i. Scope List – During the first reporting period after approval of the revised M&RP, the Discharger shall create a current "scope list" showing each detection mode MPar that does not exceed its MDL in any of its background data.

ii. Two Triggers - From the scope list made under section II.B.9.a.i. above, for an initial test (or, for a retest, the modified scope list under section II.B.9.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 at least one of the MPars on a monitoring well's scope list equals or exceeds its respective PQL.

b. Discrete Retest [27 CCR § 20415(e)(8)(E)]:

i. In the event that the Discharger concludes (pursuant to section II.B.9.a.ii above) that there is a preliminary indication, then the Discharger shall immediately notify Regional Board staff by phone, fax, or e-mail and, within three months of such indication, shall collect one new (retest) samples 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 section II.B.9.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 section II.B.9.a.ii above, but using this modified scope list) to separately analyze the retest data at that compliance well.

iii. If either (or both) of the retest samples trips the trigger under section II.B.9.a.ii, then the Discharger shall conclude that there is a measurably significant increase at that well for the constituent(s) indicated in the validating retest sample(s). Furthermore, thereafter, the Discharger shall monitor the indicated constituent(s) in tracking mode at that well, shall remove the constituent(s) from the scope list created for that well, notify the Regional Board in writing, and highlight this conclusion and these changes in the next scheduled monitoring report and in the Landfill's operating record.

9. Groundwater Flow Direction – the Discharger shall measure the water level in each well monthly and determine the presence of horizontal and vertical gradients and groundwater flow rate and direction of the groundwater.

10. Leachate Monitoring – The Discharger shall conduct leachate monitoring at a representative leachate collection sump in Zone II at the Landfill as follows:

a. Annual Appendix II Constituent Scan - Leachate samples shall be taken each year during the first semi-annual reporting period. The samples shall be analyzed for all those Appendix II constituents in 40 CFR, Part 258.

b. Pass-1-of-2 Retest - If any non-COC constituent is detected in the leachate sampling event at-or-above its respective PQL concentration, the Discharger shall resample that indicating leachate sump three months later and analyze the leachate sample for those detected constituents only. If any such constituent exceeds its respective PQL in both the initial and retest leachate samples, the constituent becomes a COC for the Landfill and the Discharger shall report this to the Regional Board within two weeks of the

confirmation. For any such new COC, the Discharger shall follow section II.B.8.a.ii to develop its initial concentration limit at each MPt well.

c. Reporting - Leachate monitoring results shall be included in the semi-annual and annual report(s) that covers the period during which the monitoring is conducted.

11. Vadose Zone Monitoring – The Discharger shall include in each semi-annual monitoring report all quarterly gas probe monitoring results conducted during that reporting period in accordance with South Coast Air Quality Management District Rule 1150.1.

12. Surface Water Monitoring – Surface water monitoring is not required in this M&RP because runoffs at the site are monitored under the general NPDES stormwater permit and the M&RP for the Landfill (CI-2567).

13. Water Used on Site for Irrigation and Dust Control: The Discharger shall record the amount of water used on site for the purposes of irrigation and dust control from each source on a monthly basis. Each water source, other than potable water, shall be sampled semi-annually and analyzed for pH, heavy metals, nitrate, and VOCs.

C. SITE INSPECTIONS

The Discharger shall inspect the Landfill in accordance with the following schedule, and record, at a minimum, standard observations.

1. During the wet season (October through April), following each storm that produces storm water runoff, or on a monthly basis if no storm produces runoff during the month.

2. During the dry season, a minimum of one inspection shall be performed every three months.

3. Standard observations during a site inspection shall include at least the following:

   a. Evidence of any surface water leaving or entering the waste management unit, estimated size of affected area, and estimated flow rate (show affected area on map).

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

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

   d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

   e. Evidence of ponded water at any point on the waste management facility (show affected area on map).

   f. Compliance with the stormwater pollution prevention plan, insuring that the terms of the general NPDES stormwater permit are properly implemented.

   g. Integrity of all drainage systems.

PART III: SAMPLING AND ANALYTICAL PROCEDURES

A. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with a sampling and analysis plan acceptable to the Executive Officer. A State of California approved laboratory shall perform water analysis. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Regional Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from all Monitoring Points meets the following restrictions:

1. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For any COC or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., trace) in historical data for that medium, the SW-846 analytical method having the lowest MDL shall be selected.

2. Report J-Values — Each trace result (i.e., the concentration falls between the constituent's MDL and its practical quantitation limit (PQL)) shall be reported as an estimated concentration (e.g., concentration is in parentheses and it is flagged as a "j-value"). Thus, for the purposes of analyses made for the Landfill, the "reporting limit" is the constituent's MDL.

3. MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included.

4. For each COC (MPar or UCOC) addressed during a given reporting period, the Discharger shall include in the monitoring report a listing of the prevailing MDL and PQL for that COC, 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 censored data (trace level and non-detect determinations). In the event that an MPar's MDL and/or PQL changes, the Discharger shall highlight that change in the report's summary and the report shall include an explanation for the change that is written and signed by the owner/director of the analytical laboratory.

5. Quality assurance and quality control (QA/QC) data shall be reported along with the sample results to which it applies. The main sample result for a given analyte shall be reported unadjusted for blank results or spike recovery, but the "alt. value" column can show what the laboratory estimates to be the constituent's true concentration, if flagged accordingly. The QA/QC data submittal shall include:

    a. The method, equipment, and analytical detection limits.

b. The recovery rates, including an explanation for any recovery rate that is outside the USEPA-specified recovery rate.

c. The results of equipment and method blanks.

d. The results of spiked and surrogate samples.

e. The frequency of quality control analysis.

f. The name and qualifications of the person(s) performing the analyses.

6. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.

B. RECORDS TO BE MAINTAINED

Analytical records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. The period of retention shall be extended during the course of any unresolved litigation or when directed by the Executive Officer. Such records shall show the following for each sample:

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

2. Date and time of sampling.

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

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Results of analyses, and MDL and PQL for each analysis.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the Regional Board.

ORDERED BY: Samuel Unger DATE: June 15, 2010

Samuel Unger
Interim Executive Officer

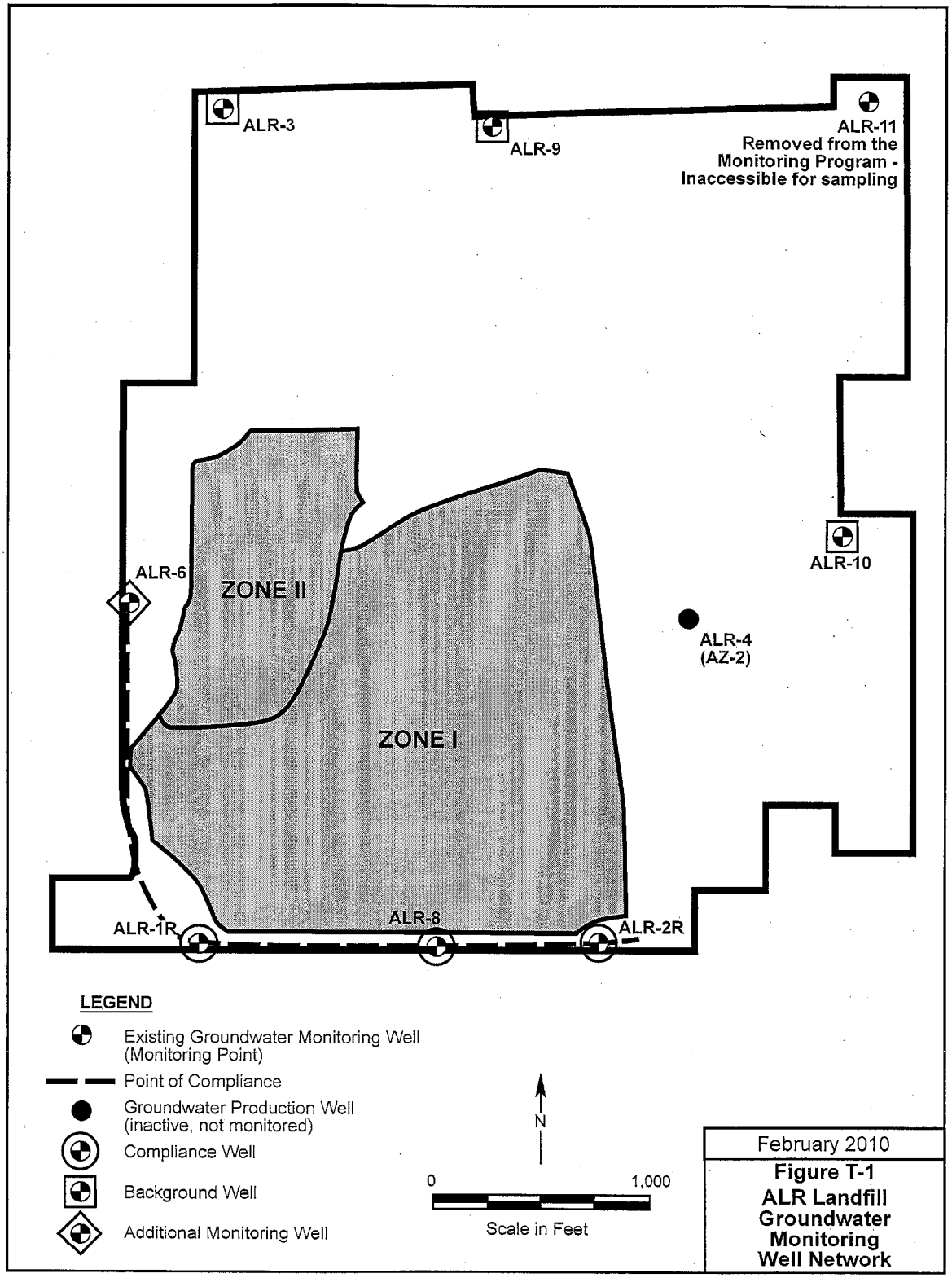
ALR-3
ALR-9
ALR-11
Removed from the Monitoring Program - Inaccessible for sampling
ALR-10
ALR-6
ZONE II
ALR-4
(AZ-2)
ZONE I
ALR-1R
ALR-8
ALR-2R
LEGEND
Existing Groundwater Monitoring Well (Monitoring Point)
Point of Compliance
Groundwater Production Well (inactive, not monitored)
Compliance Well
Background Well
Additional Monitoring Well
N
0
1,000
Scale in Feet
February 2010
Figure T-1
ALR Landfill
Groundwater
Monitoring
Well Network

Figure T-1

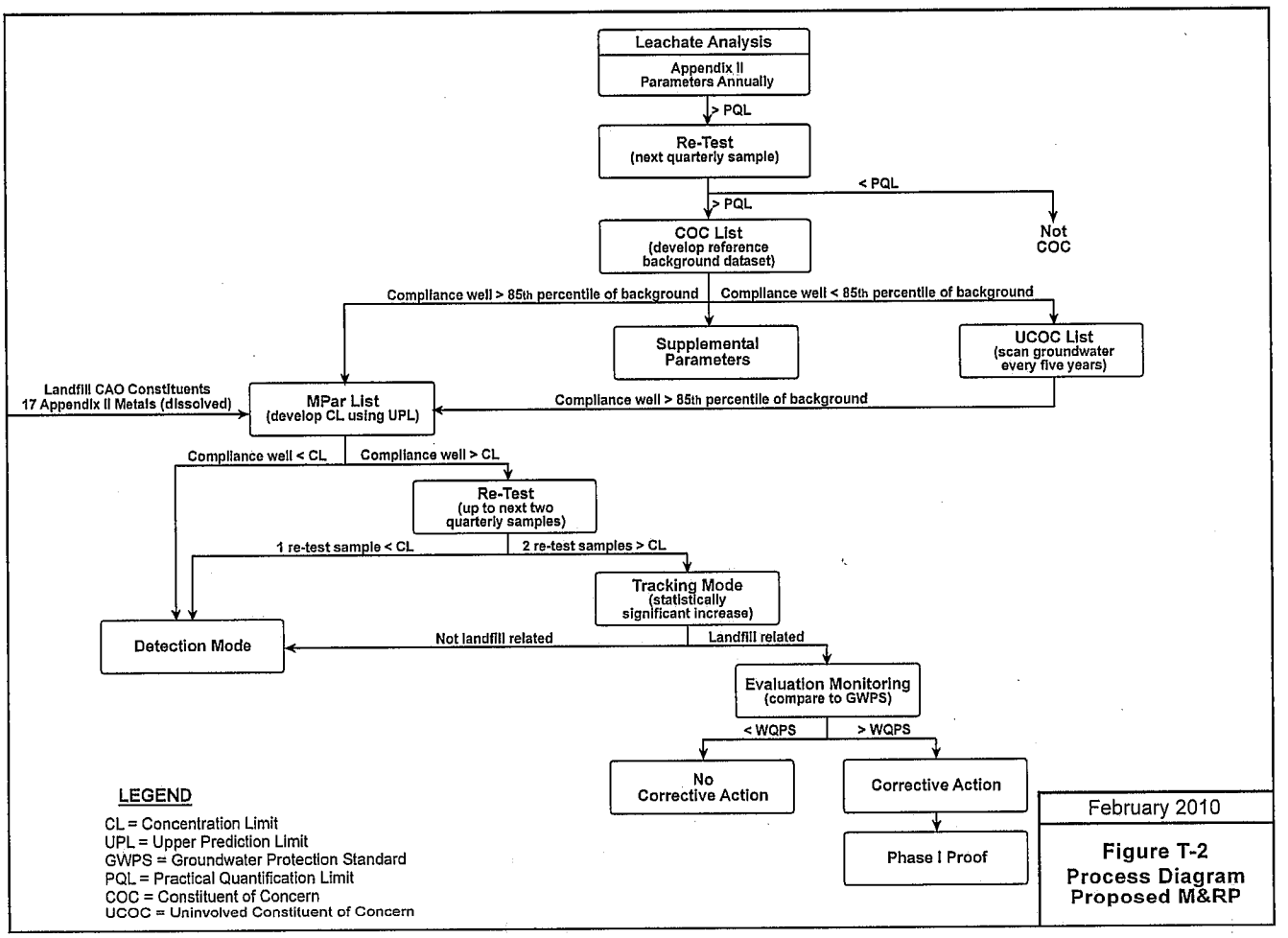
Leachate Analysis
Appendix II Parameters Annually
> PQL
Re-Test
(next quarterly sample)
< PQL
> PQL
COC List
(develop reference background dataset)
Not COC
Compliance well > 85th percentile of background
Compliance well < 85th percentile of background
Supplemental Parameters
UCOC List
(scan groundwater every five years)
Landfill CAO Constituents
17 Appendix II Metals (dissolved)
MPar List
(develop CL using UPL)
Compliance well > 85th percentile of background
Compliance well < CL
Compliance well > CL
Re-Test
(up to next two quarterly samples)
1 re-test sample < CL
2 re-test samples > CL
Tracking Mode
(statistically significant increase)
Detection Mode
Not landfill related
Landfill related
Evaluation Monitoring
(compare to GWPS)
< WQPS
> WQPS
No Corrective Action
Corrective Action
Phase I Proof
LEGEND
CL = Concentration Limit
UPL = Upper Prediction Limit
GWPS = Groundwater Protection Standard
PQL = Practical Quantification Limit
COC = Constituent of Concern
UCOC = Uninvolved Constituent of Concern
February 2010
Figure T-2
Process Diagram
Proposed M&RP

Figure T-2

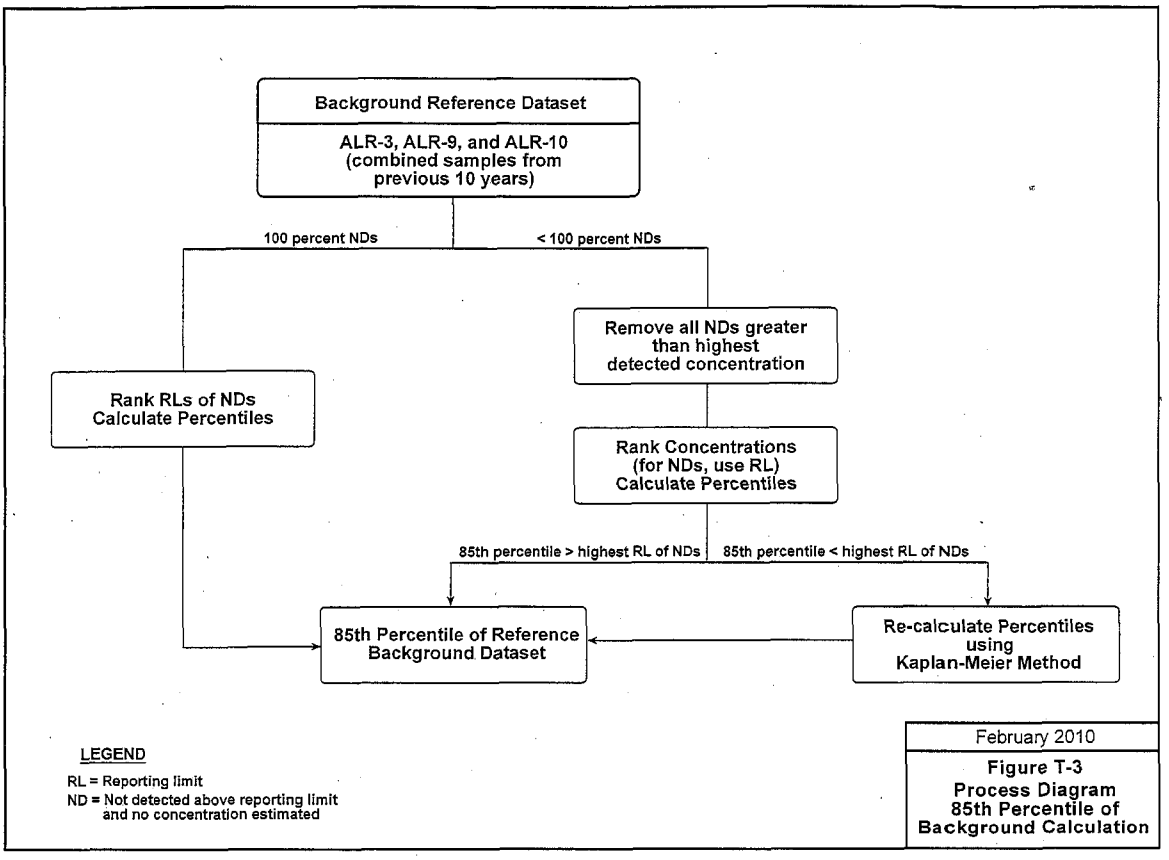
Background Reference Dataset
ALR-3, ALR-9, and ALR-10 (combined samples from previous 10 years)
100 percent NDs
< 100 percent NDs
Remove all NDs greater than highest detected concentration
Rank RLs of NDs Calculate Percentiles
Rank Concentrations (for NDs, use RL) Calculate Percentiles
85th percentile > highest RL of NDs
85th percentile < highest RL of NDs
85th Percentile of Reference Background Dataset
Re-calculate Percentiles using Kaplan-Meier Method
LEGEND
RL = Reporting limit
ND = Not detected above reporting limit and no concentration estimated
February 2010
Figure T-3
Process Diagram
85th Percentile of Background Calculation

Figure T-3

Table T-1: Monitoring Points at the Azusa Land Reclamation Landfill

Media Monitored	Monitoring Point	Location
Groundwater	Compliance wells: ALR-1R, ALR-2R, ALR-8	Downgradient
	Background wells: ALR-3, ALR-9, ALR-10	Upgradient
Leachate	Zone II LCRS sump	Zone II

Table T-2
Proposed Monitoring Parameter (MPar) and Supplemental Parameter Lists
ALR Landfill

Monitoring Parameters (MPar)	Supplemental Parameters
Landfill CAO Constituents:	General Minerals - Major Anions and Cations
Chlorobenzene	Calcium
1,2-Dichlorobenzene	Magnesium
1,4-Dichlorobenzene	Sodium
Appendix II Metals (dissolved):	Potassium
Antimony	Bicarbonate as HCO_3
Arsenic	Chloride
Barium	Sulfate (as SO_4)
Beryllium	Iron
Cadmium	Manganese
Chromium	Boron
Cobalt	Nitrate (as NO_3)
Copper	Fluoride
Lead	Bromide
Mercury	Total Dissolved Solids (TDS)
Nickel	Anion/Cation Balance
Selenium	Ammonia, nitrogen
Silver	Emergent Chemicals:
Thallium	Perchlorate
Tin	N-Nitrosodimethylamine (NDMA)
Vanadium	1,4-Dioxane
Zinc	BPOU COCs (excluding Emergent Chemicals above):
Any Appendix II constituent detected in leachate above Reference Background Dataset.	1,1,1-Trichloroethane (1,1,1-TCA)
	1,1-Dichloroethane (1,1-DCA)
	1,1-Dichloroethene (1,1-DCE)
	1,2-Dichloroethane (1,2-DCA)
	1,2,3,-Trichloropropane (1,2,3-TCP)
	Acetone
	Benzene
	Carbon Disulfide
	Carbon Tetrachloride (CTC)
	Chloroform
	cis-1,2-Dichloroethene (cis-1,2-DCE)
	Ethylbenzene
	Methylene Chloride
	Tetrachloroethene (PCE)
	Toluene
	trans-1,2-Dichloroethene (trans-1,2-DCE)
	Trichloroethene (TCE)
	Vinyl chloride
	Xylenes

ATTACHMENT A:
DEFINITION OF TERMS AND ACRONYMS

"**27 CCR**" means the State Water Resources Control Board's regulations, in Division 2 of Title 27 of the California Code of Regulations, applicable to the discharge to land of waste that is not hazardous waste.

"**40 CFR 258**" means the regulations under Part 258 of Title 40 of the Code of Federal Regulations that apply to municipal solid waste landfills.

"**ACM**" means the federal Assessment of Corrective Measures process, under 40 Code of Federal Regulations section 258.56, which applies to any municipal solid waste landfill that has exhibited a measurably significant release over the applicable Water Quality Protection Standard at any well along the point of compliance for any Appendix II constituent. In California, this process is one in which the discharger determines the nature and extent of the release, implements interim corrective action measures, and develops a broad suite of possible measures, including a subset thereof which the discharger will propose for Regional Water Quality Control Board adoption under the Selection of Remedy process. Generally speaking, the federal Assessment of Corrective Measures and Selection of Remedy processes serve the same function, under the federal approach, as the Evaluation Monitoring Program does under the State approach.

"**Affected parties**" means all people who own, or reside upon, land outside the facility boundary that is underlain by any portion of the release from the landfill. Under Title 40 of the Code of Federal Regulations section 258.55(g)(1)(iii), the discharger must keep an up-to-date list of all such people and must assure that they are invited to the discussion of proposed corrective action measures, pursuant to Title 40 of the Code of Federal Regulations section 258.56(d).

"**AMP**" means a federal Assessment Monitoring Program, under Title 40 of the Code of Federal Regulations section 258.55, which applies to any municipal solid waste landfill that, under Title 40 of the Code of Federal Regulations section 258.54(c), has exhibited a measurably significant increase over the background value for any Monitoring Parameter. In California, given that a municipal solid waste landfill will have established background as the Concentration Limit for each Monitoring Parameter, the exceedance of the background value for a monitored constituent at any monitoring point also constitutes a violation of the Water Quality Protection Standard, thereby, in most instances, triggering the federal Assessment of Corrective Measures and Selection of Remedy studies. The term also describes the federal program that: 1) is ongoing during the Assessment of Corrective Measures and Selection of Remedy studies and under the Corrective Action Program; and 2) constitutes the federal monitoring program that continues after successful completion of the Corrective Action Program.

"**Appendix I**" (to Title 40 of the Code of Federal Regulations Part 258) means the suite of Volatile Organic Compounds and metals used as the default Monitoring Parameter list under the federal municipal solid waste landfill regulations (Title 40 of the Code of Federal Regulations section 258.1 through section 258.75). The listed constituents are a subset of those listed in Appendix II and are subject to monitoring and data analysis every six months. The Regional Water Quality Control Board can adopt surrogates for the metals, and can eliminate from the

entire suite any constituent that it finds could not be released from the landfill or derived from such a release.

"**Appendix II**" (to Title 40 of the Code of Federal Regulations Part 258) means the suite of hazardous constituents used as the default Constituent of Concern list under the federal municipal solid waste landfill regulations (Title 40 of the Code of Federal Regulations section 258.1 through section 258.75). The listed constituents are subject to periodic scans, at selected compliance and background wells, either annually or, as adopted for this landfill, every five years. Constituents detected (trace level or higher) and verified in a retest sample become Monitoring Parameters. The Regional Water Quality Control Board can eliminate from the entire suite any constituent that it finds could not be released from the landfill or derived from such a release.

"**Background,**" when applied to a reference data set used in testing for a measurably significant indication of a release for a given well / Monitoring Parameter pair, means a suite of data which comes as close as possible to representing the data one would get, for that Monitoring Parameter at that well, if there were no release from the landfill.

"**Background well**" means a monitoring well whose purpose is to provide an indication, for each Monitoring Parameter and monitored ground water body, of the mean (or median) and variability one would expect in the Monitoring Parameter's concentration in that ground water body in the absence of a release from the landfill. Such wells can be upgradient, side-gradient, or (in rare instances) far-downgradient of the landfill. Due to the nearly ubiquitous presence of geographic variation, intra-well comparisons have a greater statistical power than inter-well comparisons. Therefore, the purpose of this type of well is three-fold: 1) to validate that a compliance well's historical data, for a given Monitoring Parameter, can be used as the background data set for that well / Monitoring Parameter pair, because the compliance well's historical data does not appear to reflect the presence of a release; 2) to identify the need to adjust the monitoring approach because of the arrival of waters affected by a release of that Monitoring Parameter from a source other than the landfill; and 3) to identify a condition in which a Monitoring Parameter is released from the landfill and migrates to this well in the unsaturated zone (e.g., Volatile Organic Compounds carried by an expanding landfill gas release in the unsaturated zone).

"**Box and Whiskers Plot**" is a quick way to visualize the distribution of data at a given monitoring location. The basic box plot graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as a quick estimate of spread or variability. When comparing multiple monitoring locations, box plots for each monitoring location can be lined up on the same axes to roughly compare the variability in each monitoring location. This may be used as a quick exploratory screening for the test of homogeneity of variance across multiple monitoring locations. If two or more boxes are very different in length, the variances in those monitoring location groups may be significantly different.

"**California Non-statistical Data Analysis Method (CNSDAM)**" means the test described in the Monitoring and Reporting Program for this landfill, for use jointly on all those Monitoring Parameters, at a given compliance well, whose applicable background data set exhibits trace level or higher concentrations in less than 10% of the data.

"**CAO**" means a Cleanup and Abatement Order.

"**CAP**" means a Corrective Action Program that implements the State Water Resource Control Board's requirements under Title 27 of the California Code of Regulations section 20430 and under State Water Resource Control Board Policy No. 93-62 which, regarding a municipal solid waste landfill, requires the Regional Water Quality Control Board to apply any federal requirements, under Title 40 of the Code of Federal Regulations section 258.58 (federal Corrective Action Program), that are additional to, or are broader in scope than, the Title 27 California Code of Regulations requirements.

"**CLGB**" — see "concentration limit"

"**Compliance well**" means any monitoring well named in the Monitoring and Reporting Program as a ground water monitoring point to be used in detecting, or tracking, the release. The term does not include assessment wells that are used [under Title 27 of the California Code of Regulations section 20425(b) and Title 40 of the Code of Federal Regulations section 258.55(g)] to delineate the nature and extent of the release, unless the Regional Water Quality Control Board specifically names such a well as a ground water monitoring point in the Monitoring and Reporting Program.

"**Concentration limit**" is a part of the landfill's Water Quality Protection Standard and means the reference background data set, or reference concentration value, for a given constituent against which one compares current compliance well data to identify, in detection mode, the arrival of the release at a given well and to identify, in tracking mode, if the corrective action measures are bringing the landfill back into compliance with the Water Quality Protection Standard [for that Monitoring Parameter), in the portion of the aquifer sampled by that compliance well]. For compliance wells within the area affected by the release, this limit can be a single number, adopted by the Regional Water Quality Control Board as a Concentration Limit Greater than Background under Title 27 of the California Code of Regulations section 20400(a)(3) through (h) and Title 40 of the Code of Federal Regulation section 258.55(i) for a given Monitoring Parameter involved in the release. Otherwise, this limit will be either the applicable background data set, for Monitoring Parameters that are readily detectable, or will be the Method Detection Limit, for a constituent that exhibits trace level or higher values in less than 10% of the background data (i.e., a Monitoring Parameter that is subject to the California Nonstatistical Data Analysis Method at that compliance well).

"**Constituent of concern (COC)**" is a part of the landfill's Water Quality Protection Standard and means the list of constituents that could be released from the landfill, including the foreseeable breakdown products of all such constituents. For the ground water medium at an

municipal solid waste landfill, this list must include all Appendix II constituents except for those that the discharger can show are not being mobilized in the landfill's leachate or, for Volatile Organic Compounds only, in its produced landfill gases. A constituent on this list becomes a Monitoring Parameter only after being detected (at trace level or above) and then verified by a well-specific retest in a periodic scan of compliance wells affected by the release.

"**Corrective action measure (CAM)**" means an active or passive process (or installation) that the discharger implements or constructs to constrain a release, to eliminate its effects, or to prevent or minimize the release of additional waste from the landfill. The scope of the term includes "interim Corrective Action Measures," which is applied before the adoption of the Corrective Action Program, and includes "active Corrective Action Measures," which involves the induced movement of polluted water within the impacted aquifer (e.g., a pump-and-treat operation).

"**CWC**" means the statutes in the California Water Code.

"**Detect**," when applied to a scan of leachate or ground water, means that the constituent for which the scan is conducted shows up at trace level or higher. For Constituents of Concern and Monitoring Parameters that are rarely detected in background, the term means analyses done using a laboratory analytical method that complies with Title 27 of the California Code of Regulations section 20415(e)(7).

"**Discrete retest**" means a particular means of validating a preliminary indication of a release, for a given compliance well / Monitoring Parameter pair, whereby the discharger applies an approved data analysis method to two new samples for that well / Monitoring Parameter pair. The retest validates the preliminary indication if either or both of the retest samples triggers a measurably significant increase indication. The scope of the retest, at any given compliance well, is limited to only those Monitoring Parameters that gave a preliminary indication at that monitoring point.

"**Detection mode**," for a given compliance well / Monitoring Parameter pair, means a state in which one tests for a measurably significant increase, for that Monitoring Parameter at that well, using an appropriate statistical or nonstatistical data analysis method. Once that well / Monitoring Parameter pair exhibits a measurably significant increase (including an initial indication verified by a discrete retest), it is monitored, thereafter, in "tracking mode" until the inception of the proof period, following successful completion of corrective action.

"**DMP**" means a Detection Monitoring Program that implements the State Water Resources Control Board's requirements, under Title 27 of the California Code of Regulations section 20420 and under State Water Resources Control Board Policy No. 93-62, which policy requires the Regional Water Quality Control Board to apply any federal municipal solid waste landfill requirements, under Title 40 of the Code of Federal Regulations section 258.54, that are additional to, or are broader in scope than, the Title 27 California Code of Regulations requirements.

"**EMP**" means an Evaluation Monitoring Program that implements the requirements under Title 27 of the California Code of Regulations section 20425 and under State Water Resources Control Board Policy No. 93-62, which requires the Regional Water Quality Control Board to apply any applicable federal municipal solid waste landfill requirements, under Title 40 of the Code of Federal Regulations section 258.55 through section 258.57, that are additional to, or are broader in scope than, the Title 27 California Code of Regulations requirements. This state program constitutes a stepping stone to a corrective action program, in response to the landfill exhibiting a measurably significant increase of a release or to its having exhibited physical evidence of a release [see Title 27 of the California Code of Regulations section 20385(a)(2 and 3)].

"**Existing Footprint**" (as capitalized) means the area of land, at an municipal solid waste landfill, that is covered by waste as of the date that landfill became subject to the federal regulations of Title 40 of the Code of Federal Regulations Part 258, pursuant to section 258.1 of that part.

"**Geographic variation**" means the random change in the mean, or median, concentration of a given Monitoring Parameter between different locations in a given ground water body, in the absence of a release.

"**Indicator parameter**" means all MPars that are deemed most capable of providing for a reliable indication of a Landfill release. These include common leachate indicator parameters (total dissolved solids, chloride, sulfate, and nitrate-nitrogen), all Appendix I VOCs, and all MPars for which a successful demonstration has not been made based on LCRS leachate monitoring data that the constituent cannot reliably be differentiated between LCRS leachate and groundwater. Only indicator parameters will generally be subjected to routine statistical analysis.

"**Inter-well comparison**" means a type of statistical or nonstatistical data analysis, applied to a given detection mode compliance well / Monitoring Parameter pair, in which one compares current concentration data, for that Monitoring Parameter and well, with a suite of background data from the appropriate upgradient well(s) to determine if that Monitoring Parameter has produced a measurably significant increase at that well. Generally speaking, the use of upgradient background data tends to produce higher false-positive and false-negative rates than the intra-well comparison approach, but is appropriate in those cases where it is not feasible to validate that a compliance well's own historical data reflects water quality in the absence of a release.

"**Intra-well comparison**" means a type of statistical or nonstatistical data analysis, applied to a given detection mode compliance well / Monitoring Parameter pair, in which one compares current concentration data, for that Monitoring Parameter, with a suite of background data consisting of selected historical data from that same well to determine if that Monitoring Parameter has produced a measurably significant increase at that well. Typically, the use of a compliance well's own historical data, for a Monitoring Parameter, provides better statistical power (to identify a real release and to avoid producing false-positive indications) than does the inter-well comparison approach, but only in a case where it is reasonable to assume that the

compliance well's own historical data does not reflect the presence of a release for that Monitoring Parameter.

"**LCRS**" means a functioning Leachate Collection and Removal System (i.e., one that produces leachate).

"**LFG**" means landfill gas, including any Volatile Organic Compounds.

"**LEA**" means local enforcement agency for the California Integrated Waste Managementment Board responsible for management of Waste Board regulations of 27 CCR and 40 CFR. For this Landfill the LEA is the Los Angeles County Department of Health Services, Solid Waste Program.

"**M&RP**" means the Monitoring and Reporting Program that is an attachment to the Waste Discharge Requirements (or other order) and that is incorporated by reference by the Waste Discharge Requirements.

"**Matrix effect**" means any increase in the Method Detection Limit or Peak Quantitation Limit for a given constituent as a result of the presence of other constituents, either of natural origin or introduced through a release, that are present in the sample of water or soil-pore gas being analyzed.

"**Measurably significant increase**" means a condition in which an appropriate data analysis method shows an initial indication of a release, for a given detection mode compliance well / Monitoring Parameter pair, that is verified by a discrete retest (for that well and Monitoring Parameter).

"**Method detection limit (MDL)**" means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte's concentration is greater than zero, as defined in Title 40 of the Code of Federal Regulations section 136, Appendix B.,

"**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.

"**Monitored media**" means those water and/or gas-bearing media (if applicable) that are monitored pursuant to a monitoring and reporting program. The monitored media may include:

a. groundwater in the uppermost aquifer or in any other portion of the zone of saturation [section 20164 of Title 27 of the California Code of Regulations], in which it would be reasonable to anticipate that waste constituents migrating from the landfill could be detected, and in any perched zones underlying the landfill,

b. any bodies of surface water that could be measurably affected by a release,

c. soil-pore liquid beneath and/or adjacent to the landfill, and

d. soil-pore gas beneath and/or adjacent to the landfill.

"**Monitoring parameter (MPar)**" is a part of the landfill's Water Quality Protection Standard and means a list consisting of those Constituents of Concern that are present at a detectable level (trace level or above) in ground or surface water affected by the release. This is the subset of the Constituents of Concern that is subject to testing for a measurably significant increase, in detection mode, at all compliance wells. For ground water, at a landfill with a functioning Leachate Collection and Removal System, this suite includes all Appendix II constituents that have been detected (at trace level or above) and verified in leachate and, subsequently, have been detected (at trace level or above) and verified in a Constituents of Concern scan of ground water at compliance wells affected by the release. For ground water, at a landfill without a functioning Leachate Collection and Removal System, this suite includes all Appendix II constituents that have been detected (at trace level or above) and verified in a Constituents of Concern scan of ground water at any compliance well affected by the release.

"**Monitoring point,**" for any given monitored medium (surface water, ground water, or the unsaturated zone), means a location, including any installed access device (e.g., well or lysimeter), that is named in the Monitoring and Reporting Program as a place where the discharger monitors that medium: 1) to detect the arrival of the release front for each Monitoring Parameter that is in detection mode at that location; 2) to detect changes in the concentration of each Monitoring Parameter that is in tracking mode at that location; and 3) in a case where the location that is in tracking mode for most Monitoring Parameters that are involved in the release, to detect the presence, at trace level or above, of any Constituents of Concern that have not previously been detected in that medium (Constituents of Concern newly detected and verified in that medium become Monitoring Parameters for that medium).

"**MSW landfill**" means any landfill that is subject to any portion of the federal regulations under Title 40 of the Code of Federal Regulations Part 258 by virtue of having received municipal solid waste (household waste) at any time and having received any waste after October 9, 1991.

"**Operating record**" means the organized compendium of information about the landfill and facility that the discharger maintains and makes available to the public at a site approved by the Regional Water Quality Control Board and/or the Enforcement Agency and that contains a copy of each document submitted to, or received from, any State or local regulatory agency for purposes of obtaining or updating either the Facility Permit or the Waste Discharge Requirements, demonstrating compliance with the California Environmental Quality Act, or complying (or demonstrating compliance) with any applicable requirement under Title 40 of the Code of Federal Regulations Part 258.

"**Point of compliance (POC)**" is, for the ground water medium, a part of the landfill's Water

Quality Protection Standard and means a conceptual vertical surface that is located, in map view, along the hydraulically downgradient limit of waste placement at the landfill and that extends downward through the uppermost aquifer underlying the Unit. The federal municipal solid waste regulations require one or more ground water monitoring points along this vertical surface to monitor the quality of ground water passing it (see Title 40 of the Code of Federal Regulations section 258.51), whereas the Regional Water Quality Control Board will name other ground water monitoring points (not along this vertical surface) as needed to provide the earliest possible detection and measurement of a release [see Title 27 of the California Code of Regulations section 20415(b)(1)].

"**Practical quantitation limit (PQL)**" means the value established as a target value by the United States Environmental Protection Agency that is the lowest concentration of a substance that can be consistently determined within +/- 20% of the true concentration by 75% of the laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the Practical Quantitation Limit for carcinogens is the Method Detection Limit multiplied by 5, and for noncarcinogens is the Method Detection Limit multiplied by 10. These estimated Practical Quantitation Limits are listed in Appendix II to Title 40 of the Code of Federal Regulations Part 258. Generally, these are target values that may not reflect the constraints of matrix effects; therefore, the Regional Water Quality Control Board requires the discharger to keep an up-to-date listing of the applicable laboratory-specific Practical Quantitation Limit and Method Detection Limit estimates for each analyte on the Constituent of Concern list.

"Recycled water" refers to "disinfected tertiary recycled water" as defined in California Code of Regulations, Title 22, Section 60301.230.

"**Release**" means the three-dimensional portion of the monitored medium (ground water, surface water, or the unsaturated zone) comprised of all locations therein that are affected by one or more Monitoring Parameters that have migrated from the landfill to such an extent that a properly constructed monitoring point, at that location, would trigger a measurably significant increase over the applicable concentration limit, using an appropriate data analysis method meeting the requirements of Title 27 of the California Code of Regulations section 20415(e)(9) and a background data set sample size of 16 or more data points.

"**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.

"**Reporting period**" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal.

"**Retest**," when applied to a scan to detect the presence of an appropriate list of analytes in leachate, landfill gas, or ground water (at an affected monitoring point), means taking a single additional sample from the indicating medium (or, for ground water, the indicating monitoring point) to determine whether the initial detection, for that analyte, is valid. When applied to the

six-monthly monitoring effort for a given compliance well / Monitoring Parameter pair in detection mode, see "discrete retest."

"**RWQCB**" or "**Regional Board**" means the appropriate California Regional Water Quality Control Board.

"**Sample size,**" for a given compliance well / Monitoring Parameter pair in detection mode, means the number of data points used to represent the variability of the background population or to represent the present compliance status of the Monitoring Parameter at that well, when applying an appropriate data analysis method.

"**Scan**" means a determination as to whether any of a given list of constituents are detectable (at the trace level or above) in the monitored medium (typically leachate, ground water, or landfill gas). The term includes both the initial measurement and, for a newly detected constituent, the results of the single retest sample. To identify a newly detected constituent, the constituent must be detected (at trace level or above) and then verified by being detected in the single sample retest. When applied to leachate or landfill gas, the term indicates a way of determining which Appendix II constituents should be included in the landfill's the Constituents of Concern list (once detected and verified, a constituent is added permanently to the Constituents of Concern list). When applied to ground water, the term indicates a way of determining which Appendix II constituents should be included in the landfill's Monitoring Parameter list (once detected and verified at any given compliance well or background well, a constituent is added permanently to the Monitoring Parameter list).

"**SOR**" means a federal Selection of Remedy study, under Title 40 of the Code of Federal Regulations section 258.57, which applies to any municipal solid waste landfill that has exhibited a measurably significant release over the applicable Water Quality Protection Standard at any well along the Point Of Compliance for any Appendix II constituent. In California, this process is one in which the Regional Water Quality Control Board, in the presence of any affected persons and other interested parties, considers all relevant factors and adopts a suite of corrective action measures — developed during the Assessment of Corrective Measures study — which the discharger will apply during the Corrective Action Program to remediate the effects of the release. Generally speaking, the studies serve the same function, under the federal approach, as the Evaluation Monitoring Program does under the State approach.

"**Standard observations**" refers to:

a. For receiving waters:

   i. Floating and suspended materials of waste origin: presence or absence, source, and size of affected area;

   ii. Discoloration and turbidity: description of color, source, and size of affected area;

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

iv. Evidence of beneficial use: presence of water-associated wildlife;

v. Flow rate; and

vi. Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Along the perimeter of the landfill:

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

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

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

c. For the landfill:

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

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

iii. Evidence of erosion and/or of daylighted refuse; and

iv. Standard Analysis and Measurements, which refers to:

A. Turbidity (only for water samples) in NTU:

B. Water elevation to the nearest 1/100th foot above mean sea level (only for groundwater monitoring); and

C. Sampling and statistical/non-statistical analysis of the Monitoring Parameters.

"**SW-846**" means the laboratory analytical guidance document published by the United States Environmental Protection Agency.

"**SWRCB**" means the California State Water Resources Control Board.

"**SWRCB Resolution No. 93-62**" means the order the State Water Resources Control Board adopted in 1993 as State Policy For Water Quality Control (has the force of regulation) that applies to all municipal solid waste landfills and requires a composite liner for all portions of the landfill outside of its Existing Footprint, with rare exceptions, and requires the Regional Water Quality Control Board to apply any requirement of Title 40 of the Code of Federal Regulations Part 258 that is missing from, or broader in scope than, the State Water Resources Control Boards' landfill requirements under Title 27 of the California Code of Regulations.

"**Tracking mode,**" for a given compliance well / Monitoring Parameter pair, means a state in which there has already been a measurably significant increase (for that Monitoring Parameter at that well) such that the focus has changed from detecting the release to tracking it. In this mode, one keeps an up-to-date concentration versus time plot used in the six-monthly report validating the effectiveness of the Corrective Action Measures — required under Title 27 of the California Code of Regulations section 20430(h) — to demonstrate either that current Corrective Action Measures are effectively remediating the release or to identify the need for proposing additional/changed Corrective Action Measures under Title 27 of the California Code of Regulations section 20430(i or j) and Title 40 of the Code of Federal Regulations section 258.58(b). A well / Monitoring Parameter pair in this mode remains in this mode until the inception of the proof period following successful completion of corrective action.

"**Time Schedule Order (TSO)**" is an enforceable schedule of compliance for achieving listed milestones in the cleanup.

"**Time-Versus-Concentration Plot**" provides a graphical method to view changes in concentration levels at a particular monitoring location(s) over time. More than one monitoring location can be compared on the same plot to look for differences between monitoring locations. They can also be used to examine the data for indications of trends.

"**Uninvolved COC (UCOC) List**" means the list of COCs that are subject only to periodic every-five-years checks.

"**VOC**" means any of the Volatile Organic Compounds that can be identified in a water or leachate sample under United States Environmental Protection Agency Method 8260 (see SW-846). The United States Environmental Protection Agency lists a subset of 47 such constituents in its Appendix I default Monitoring Parameter list (see Appendix I to Title 40 of the Code of Federal Regulations Part 258).

"**VSRLF**" means a "*very small rural landfill*" that has demonstrated to the satisfaction of the Regional Water Quality Control Board that it meets, and continues to meet, the qualifying preconditions, under Title 40 of the Code of Federal Regulations section 258.1(f), for being exempt from the federal design criteria (see Title 40 of the Code of Federal Regulations Part 258 Subpart D) and the federal monitoring requirements (see Title 40 of the Code of Federal Regulations Part 258 Subpart E). In California, to qualify as being such a landfill, the Operating

Record must include the Regional Water Quality Control Board's concurrence with the discharger's demonstration under Title 40 of the Code of Federal Regulations section 258.1(f). Such a landfill is still required to monitor pursuant to the Title 27 California Code of Regulations requirements and the federal exemptions cease to apply as soon as the landfill exhibits evidence of a release.

"**Water quality protection standard (Water Standard)**" means the multi-part system by which the discharger determines the compliance status of the landfill, with respect to the release of waste constituents. For each monitored medium, the term includes: the Constituent of Concern list and the Monitoring Parameter list (i.e., the subset of Constituents of Concern that are detectable in the that medium); the concentration limit for each Monitoring Parameter at each monitoring point; the monitoring points (for the ground water medium, these are the compliance wells); and, for the ground water medium, the point of compliance. A violation of this standard occurs whenever a Constituent of Concern that is detectable in that medium (i.e., an Monitoring Parameter) produces a measurably significant increase over its applicable concentration limit at any monitoring point, as indicated by an appropriate statistical or nonstatistical data analysis method meeting the requirements of Title 27 of the California Code of Regulations section 20415(e)(9). Such a violation triggers a change from detection mode to tracking mode for that well / Monitoring Parameter pair.

"**Well / Monitoring Parameter (Well/MPar) pair**" means a given Monitoring Parameter at a given well (typically a compliance well, unless a release is detected at a background well). The discharger tracks compliance with the Water Quality Protection Standard for each such pair; therefore, the minimum number of such pairs for the ground water medium is equal to the number of compliance wells times the number of Monitoring Parameters. At any given time, such a well and constituent combination will be either in detection mode or in tracking mode.

"**WDRs**" means Waste Discharge Requirements.