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

MONITORING AND REPORTING PROGRAM NO. CI-8372A

FOR
POST-CLOSURE MAINTENANCE
PARAMOUNT DUMP (55TH WAY LANDFILL)
FILE NO. 93-079

A. GENERAL

1. Monitoring responsibilities of the City of Long Beach (Discharger) for the Paramount Landfill (Landfill) are specified in California Water Code (CWC) § 13225(a), § 13267(b) and § 13387(b). This self-monitoring program is issued pursuant to California Regional Water Quality Control Board, Los Angeles Region (Regional Board) Order No. R4-2004-0157. The principal purposes of a self-monitoring program by a discharger are:

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

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

    c. To prepare water quality analyses.

2. The Discharger shall implement this monitoring and reporting program (M&RP), as described in Section B (Provisions for Groundwater Monitoring) of Regional Board Order No. R4-2004-0157. The Discharger shall implement this M&RP during the first monitoring period immediately following adoption of this Order. The first monitoring report under this program is due by October 30, 2004.

3. The Discharger shall comply with the requirements of 27 CCR § 20415 (General Water Quality Monitoring and System Requirements) for any water quality monitoring program developed to satisfy 27 CCR § 20420 (Detection Monitoring Program), § 20425 (Evaluation Monitoring Program), or § 20430 (Corrective Action Program) and the requirements of this Order.

B. GROUNDWATER MONITORING PROGRAM

1. The compliance groundwater monitoring system at the Landfill includes three monitoring wells (PZ-1, MW-1, and MW-2) (see Figure 1, attached).

2. Monitoring wells existing at the Landfill that are not part of the compliance groundwater monitoring system include PZ-2, PZ-3, PZ-4, MW-3, and MW-4. All existing piezometers and monitoring wells at the Landfill are shown on Figure 1.

3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer. Specific methods of analysis must be identified. If methods other than the U. S. Environmental Protection Agency (USEPA) approved methods or standard methods are used, the exact methodology must be submitted for review and must be approved by the Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

4. The monitoring parameter list for the Landfill, to be monitored on a semi-annual basis, shall include all constituents listed below:

	Monitoring Parameters	**Test Method**
1.	Chemical Oxygen Demand (COD)	USEPA 410.4
2.	Total Organic Halides (TOX)	USEPA 9020
3.	Total Organic Carbon (TOC)	USEPA 415.1
4.	Total Dissolved Solids (TDS)	USEPA 160.1
5.	Chloride	USEPA 300.0
6.	Sulfate	USEPA 300.0
7.	Boron	USEPA 6010
8.	Volatile Organics	USEPA 8260*
9.	Semi-volatiles*	USEPA 3510/8270
10.	Sulfides	USEPA 376.2
11.	Nitrate (as N)	USEPA 300.0

*All peaks greater than 10% of the internal standard shall be identified and quantified for gas chromatography analyses.

Once each year, during the April-September monitoring period, all wells shall be sampled and also analyzed for the following expanded list of constituents of concern (COCs). COCs are those constituents which are likely to be in the waste in the landfill or which are likely to be derived from waste constituents, in the event of a release.

Monitoring Parameters	**Test Method**
PCBs*	USEPA 3510/8080

Biological Oxygen Demand	USEPA 405.1
Nitrite	USEPA 300.0
Oil and Grease	USEPA 413.2

*All peaks greater than 10% of the internal standard shall be identified and quantified for gas chromatography analyses.

5. The Discharger shall implement data analysis methods compliant with the requirements of 27 CCR § 20415 (General Water Quality Monitoring and System Requirements) to evaluate any statistically significant indications of a release from the Landfill.

6. Proper chain of custody procedures shall be used.

7. If the Discharger monitors any pollutants more frequently than required by Order No. R4-2004-0157, using the most recent version of Standard USEPA Methods, or as specified in Order No. R4-2004-0157, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharger's monitoring report. The increased frequency of monitoring shall also be reported.

8. The Discharger shall report all instances of noncompliance not reported under Reporting Requirement F.5 of Order No. R4-2004-0157 at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirement F.5.

9. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods, and in accordance with an approved sampling and analysis plan.

10. All monitoring instruments and equipment which are used by the Discharger to fulfill the prescribed monitoring program shall be properly calibrated and maintained as necessary to ensure their continued accuracy.

11. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required Order No. R4-2004-0157. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer.

12. Records of monitoring information shall include:

a. The date, identity of sample, monitoring point from which it was taken, and time of sampling or measurement;

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

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

d. The analytical techniques or method used, including method of preserving the sample and the identity and volumes of reagents used;

e. Calculation of results;

f. Results of analyses, and the maximum detection limit (MDL) for each parameter, and

g. Laboratory quality assurance results (e.g. percent recovery, response factor).

8. The monitoring reports shall be signed by an authorized person as required by Reporting Requirement F.8 of Order No. R4-2004-0157.

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

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

11. Thirty-Day Sample Procurement Limitation:
For any given monitored medium, the samples taken from all monitoring points to satisfy the data analysis requirements for a given reporting period shall all be taken within a span of 30 days, and shall be taken in a manner that insures sample independence to the greatest extent feasible [27 CCR § 20415(e)(12)(B)]. Groundwater sampling shall also include an accurate determination of the groundwater surface elevation and field parameters (temperature, pH, electrical conductivity, turbidity) for that monitoring point [27 CCR § 20415(e)(13)]; groundwater elevations taken prior to purging the well and sampling for monitoring parameters shall be used to fulfill groundwater flow rate/direction analyses required under Item No. B.14 of this M&RP. Statistical analysis shall be carried out as soon as the data is available, in accordance with statistical and non-statistical analyses requirements described in this M&RP.

12. If a measurably significant evidence of a release from the waste management unit is determined, the Discharger shall conduct required monitoring and response programs in accordance with Title 27 section 20385.

13. Prior to sampling monitoring wells, the presence of a floating immiscible layer in all wells shall be determined at the beginning of each sampling event. This shall be done prior to any other activity which may disturb the surface of the water in a monitoring well (e.g. water level measurements). If an immiscible layer is found, this Regional Board shall be notified within 24 hours.

14. For each monitored groundwater body, the Discharger shall measure the water level in each well and determine groundwater flow rate and direction at least semi-annually, including the times of expected highest and lowest elevations of the water level for the respective groundwater body. Groundwater elevations for all background and downgradient wells for a given groundwater body shall be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

C. REPORTS TO BE FILED WITH THE BOARD

1. Required monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

Report Frequency	Report Period	Report Due
Semiannually	April – September	October 30
	October – March	April 30
Annually	January – December	April 30

In the event monitoring is not performed as above because of unforeseen circumstances, substitute monitoring shall be performed as soon as possible after these times, and the reason for the delay shall be given.

2. Semi-annual groundwater monitoring reports shall be submitted no later than one month following the end of their respective reporting period. The reports shall be comprised of at least the following in addition to the specific contents listed for each respective report type:

   a. Transmittal Letter

A letter summarizing the essential monitoring points shall be submitted with each report. The transmittal letter shall include:

i. A discussion of any requirement violations found since the last such report was submitted and shall describe actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement 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; and

ii. A statement certifying that, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct. This statement shall be signed by an individual that meets the requirements contained in Provision No. E.8 of Order No. R4-2004-0157.

b. Semi-Annual Report

The semi-annual report shall contain, but not be limited to the following:

i. Site maintenance outlined in section B of this monitoring and reporting program.

ii. Groundwater analysis and flow rate outlined in section B of this monitoring and reporting program.

iii. A map (or copy of an aerial photograph) showing the locations of observation stations, monitoring points, and background monitoring points.

iv. Pre-Sampling Purge for Samples Obtained from Wells:

For each monitoring point addressed by the report, a description of the method and time of water level measurement, of the type of pump used for purging and the placement of the pump in the well, and of the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, electrical conductivity and turbidity during purging, the calibration of the field equipment, results of the pH, temperature, electrical conductivity, and turbidity testing, and the well recovery time).

The method of disposal or reuse purpose, if reused of the purge water shall be reported. If no fluid was pumped during the period from any monitoring well, a statement to that effect shall be submitted.

v. Sampling:

For each monitoring point addressed by the report, a description of the type of pump, or other device, used and its placement for sampling, and a detailed description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the type of containers and preservatives used, the date and time of sampling, the name and qualifications of the person taking the samples, and any other observations).

vi. Laboratory Results

Laboratory results for groundwater required under this M&RP shall be summarized in the report. For each report, include laboratory statements of results of all analyses demonstrating compliance with Item No. A.2 of this M&RP; Unless otherwise approved by the Executive Officer, monitoring reports shall be submitted in PDF or JPEG format (tabular laboratory analytical data may be submitted in MS Excel or Access format) that are recorded in CD-ROMs. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with Order No. R4-2004-0157. Hard copies of the cover letter, the main report text, and any tables and/or figures that are directly quoted in the main report, shall be submitted with the CD-ROM. The hard copies shall be signed by a responsible officer(s) of the Discharger. All original laboratory reports, quality assurance and quality control (QA/QC) data, and filed records that are used to prepare the reports must be kept in the Landfill's operating record. These data must be available for Regional Board staff review, if required. The Regional Board regards the submittal of data in hard copy and on CD-ROMs as "...the form necessary for..." statistical analysis [27 CCR § 20420(h)].

c. Annual Summary Report

The Discharger shall submit an annual report to the Regional Board covering the previous monitoring year.

i. For each monitoring point, submit in graphical format the laboratory analytical data for all monitoring parameters taken within at least the previous five calendar years. Each graph shall plot the concentration of the constituent over time for a given monitoring point, at a scale appropriate to show trends or variations in water quality.

ii. A comprehensive discussion of the compliance record, results of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.

iii. A written summary of the monitoring results and monitoring system(s), indicating any changes made or observed since the previous annual report.

iv. A topographic map at appropriate scale, showing the direction of groundwater flow at the landfill site.

Monitoring reports shall be submitted to:

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

Ordered by _____

Jonathan Bishop Date: October 7, 2004
Executive Officer

FIGURE 1:
PARAMOUNT LANDFILL - GROUNDWATER MONITORING NETWORK