CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2003-0045

WASTE DISCHARGE REQUIREMENTS FOR RIVERSIDE COUNTY WASTE MANAGEMENT DEPARTMENT

ELSINORE SANITARY LANDFILL CLASS III SOLID WASTE DISPOSAL SITE RIVERSIDE COUNTY

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The Elsinore Sanitary Landfill (ESL) is owned by the City of Lake Elsinore and maintained by the Riverside County Waste Management Department (hereinafter RCWMD). The ESL is located at 2250 Franklin Street, east of Interstate 15 in the City of Lake Elsinore; SW ¼ of Section 4, T6S, R4W, of the San Bernardino Meridian, Riverside County, California.

2. The discharge of waste to land is regulated by Title 27, California Code of Regulations (Title 27). The terms used in this permit are defined in Title 27 §20164.

3. The ESL is a closed, unlined Class III landfill that was initially operated by the City of Lake Elsinore as a burn dump from 1953 to 1970. The City purchased the property from Stelma Corporation on March 30, 1963. The site was subsequently leased to Riverside County on November 9, 1970. Riverside County operated the ESL as a Class III landfill from 1970 until October 31, 1986. The ESL ceased receiving waste on October 31, 1986. Approximately 44 of the 50 acres at the site were used for landfilling.

4. The ESL is located on the foothills of the Temescal Mountains, just east of Lake Elsinore. Surface elevations at the site range from 1440 feet above mean sea level (msl) at the southern boundary to 1600 feet above msl at the northern boundary, a linear distance of approximately one-half mile.

5. The ESL is located on the western edge of the Perris Block, which terminates abruptly at the Elsinore fault zone. The site is underlain by the Santa Ana Formation on the north and by the Diorite and Gabbro Group in the south. The Santa Ana Formation is composed of metamorphic rocks of Upper Triassic Age. The Diorite and Gabbro Group is of Jurassic Age. The rock encountered while drilling the original groundwater wells at the east-central and south borders of the landfill consisted of decomposed to slightly weathered rock to a depth of approximately 70 feet. These areas appear to be of the Diorite-Gabbro Group.

On the west-central and north edges of the landfill, hard fractured rock was encountered to depths up to 135 feet. These areas probably consist of the metamorphic unit, which is probably fractured due to movement on the north Elsinore fault.

6. The climate of the ESL area ranges from temperate sub-tropical to temperate. Average annual site precipitation is estimated to be approximately 12.80 inches per year. The annual average evaporation rate is 64 inches. The estimated precipitation for a 24-hour, 100-year storm event is 1.50 inches.

7. Surface water bodies in the area consist mostly of small, unnamed seasonal streams, with the exception of the San Jacinto River and Railroad Canyon Reservoir, located east of the site. The discharge area is tributary to the Elsinore Groundwater Subbasin. Depth to groundwater under the site varies between 30 and 70 feet, except at the north end where it varies between 110 and 130 feet below ground surface. The groundwater flow direction at the site is predominantly in a southwesterly direction at a groundwater flow velocity of 0.01 foot per day.

8. The Santa Ana River Basin Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region. According to the Basin Plan, surface drainage from ephemeral streams located on or adjacent to the landfill property is tributary to San Jacinto River Reach 1, the intermittent beneficial uses of which include:

   a) Municipal and Domestic Supply (MUN),
   b) Agricultural Supply (AGR),
   c) Groundwater Recharge (GWR),
   d) Water Contact Recreation (REC1),
   e) Non-Contact Water Recreation (REC2),
   f) Warm Freshwater Habitat (WARM), and
   g) Wildlife Habitat (WILD).

9. Groundwater from the alluvial deposits beneath the landfill property flows into the Elsinore Groundwater Subbasin, the beneficial uses of which include:

   a) Municipal and domestic supply,
   b) Agricultural supply, and
   c) Industrial process supply.

10. The Regional Board adopted Order No. 76-2 on February 27, 1976, for discharges of municipal solid wastes (MSW) to land at the ESL. Order No. 76-2 was subsequently amended by WDR Orders No. 93-57 and 94-17, adopted on September 10, 1993 and March 11, 1994, respectively, to incorporate new federal regulations (Title 40, Code of Federal Regulations [40CFR], Part 258, commonly known as Subtitle D), and to prescribe uniform drainage and erosion control system requirements for MSW landfills in the Santa Ana Region.

11. On July 18, 1997, the State Water Resources Control Board (SWRCB) and the California Integrated Waste Management Board (CIWMB) promulgated the Solid Waste Requirements, Subdivision 1 of new Division 2, Title 27 to replace the SWRCB's non-hazardous waste portions of Title 23, California Code of Regulations (CCR), Chapter 15, and the CIWMB's landfill requirements of Title 14, CCR.

12. On November 20, 1998, Orders No. 93-57 and 94-17 were rescinded and replaced by WDR Order No. 98-99. This Order contains additional discharge, monitoring, and reporting requirements that require RCWMD to maintain the ESL in accordance with Title 27 and with State Board Resolution No. 93-62, *Policy for Regulation of Discharges of Municipal Solid Waste* (Resolution No. 93-62).

13. The ESL is not subject to 40CFR, Part 258, because the ESL stopped accepting waste before the Federal deadline of October 9, 1993.

14. In May and June of 1988, four groundwater monitoring wells (E-1, E-2, E-3, and E-4) were installed around the perimeter of the site as part of the Water Solid Waste Assessment Test (SWAT) program. After one year of monitoring as required under the SWAT program, RCWMD continued monitoring the facility under the Chapter 15 and subsequent Title 27 programs.

15. Historically, low-level concentrations of inorganics and VOCs, consisting predominantly of 1,1-dichloroethane, 1,1-dichloroethene, 1,4-dichlorobenzene, cis-1,2-dichloroethene (cis-1,2-DCE), methylene chloride, tetrachloroethene (PCE), trichloroethene (TCE), dichlorodifluoromethane, and trichlorofluoromethane, were detected in wells downgradient of the landfill. RCWMD performed groundwater flow and solute transport modeling for groundwater beneath the ESL. The numerical modeling indicated that the steady state PCE contaminant plume might migrate a few hundred feet beyond the property boundary, but will likely have PCE concentrations of less than 10 micrograms per liter (µg/l). Further, the plume will likely be confined to the non-water bearing, slightly fractured granitic bedrock. These hydrogeologic and geologic conditions dictate that any attempted direct clean up of the impacted groundwater will prove to be both costly and ineffective.

16. Due to detections of "measurably significant" releases of volatile organic compounds (VOCs) downgradient of the ESL, the ESL was placed in an Evaluation Monitoring Program (EMP) in accordance with §20425 of Title 27 and the parameters and schedules set forth in Monitoring and Reporting Program (M&RP) No. 98-99-02. For the ESL, water quality monitoring, sampling, and analyses are conducted and reported on a semi-annual basis. The water quality monitoring program also includes sampling and analysis of landfill gas (LFG) condensate on an annual basis, and a groundwater analysis of a specified list of constituents of concern (COC) every 5 years.

17. To reduce the source of the contamination and to prevent further contamination of groundwater, a landfill gas collection system was installed, and began operating in April 1993. RCWMD also constructed a final cover in accordance with closure and post-closure standards of Chapter 15 and Title 14, Chapter 3, Section 7.8 in 1992 to ensure containment of the waste materials and to minimize the infiltration of rainwater into the waste materials. Final certification of the cover was completed in 1994. Drainage improvements were also completed to provide positive drainage while minimizing the potential for erosion. To improve the removal of LFG from the landfill, additional gas collection wells were installed in the interior portion of the waste prism in 1996.

18. The Ground Water Protection Standard (water standard) established for the facility in accordance with §§20390, 20395, and 20400 of Title 27 utilizes background concentration data as the concentration limit for each VOC that is detectable in applicable background data at least 10 percent of the time, and uses the method detection limit as the concentration limit for VOCs that have been detected less than 10 percent of the time. The concentration limit for general minerals and naturally occurring metals are determined using an 8-year moving average or 16 data points, whichever is greater, using intrawell control charts as the data analysis method.

19. RCWMD has implemented the necessary interim measures to control the downgradient migration of VOCs. With the interim measures in place, the VOC concentrations detected in the downgradient monitoring wells are currently decreasing in concentration or remaining at the same concentration at levels below the State and Federal maximum contaminant levels (MCLs).

20. Regional Board Staff finds that the EMP has successfully shown the nature and extent of the release from the ESL. The interim corrective action design implemented is also considered adequate to meet the requirements of the Corrective Action Program (CAP) design outlined in Title 27 §20425.

21. On August 15, 2002, RCWMD submitted Joint Technical Document (JTD) Addendum No. 1 to formally implement a Corrective Action Program (CAP) for the ESL.

22. Regional Board staff has reviewed JTD Addendum No. 1 for the ESL and finds that JTD Addendum No. 1 includes all the required information to place the ESL into a CAP.

23. The Regional Board has notified RCWMD and interested agencies and persons of its intent to prescribe revised WDRs for the ESL.

24. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that RCWMD, in order to meet the applicable provisions contained in the California Water Code (CWC) and Title 27, shall comply with the following:

A. DISCHARGE SPECIFICATIONS

1. Groundwater

RCWMD shall continue corrective action to remediate releases from the ESL to the water standard. Corrective action measures taken may be terminated when RCWMD demonstrates to the satisfaction of the RWQCB that the concentrations of all constituents of concern (COCs) are reduced to levels below their respective concentrations limits for a minimum of three consecutive years throughout the entire zone affected by the release.

2. Surface Water

The discharge shall neither cause nor contribute to any surface water contamination, pollution, or nuisance, including, but not limited to:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;
b. Increases in bottom deposits or aquatic growth;
c. An adverse change in temperature, turbidity, or apparent color change beyond natural background levels and occurrences;
d. The creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin; and
e. The introduction or increase in concentration of toxic or other pollutants/ contaminants resulting in unreasonable impairment of beneficial uses of the waters of the State.

3. Unsaturated Zone

For the ESL, the discharge shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials beneath or outside of the ESL boundaries if such waste constituents could migrate to the waters of the State and cause a condition of contamination, pollution, or nuisance.

4. Constituents of Concern

The landfill shall not cause the concentration of any constituent of concern (COC) or monitoring parameter (MPar) to exceed its respective background value in any monitored medium at any monitoring point pursuant to the attached Monitoring and Reporting Program (M&RP) No. R8-2003-0045.

5. Liquid Usage

The discharge of liquids, including groundwater and landfill gas condensate, or their use for dust control or irrigation, at an MSW landfill is prohibited, unless the liquids generated from the site are disposed of in accordance with a disposal plan approved by the Executive Officer of the Regional Board.

B. WATER QUALITY PROTECTION STANDARD

Monitoring program start date - Unless RCWMD proposes and the Regional Board approves an alternative water standard, RCWMD shall monitor for compliance with the water standards established by this order using M&RP No. R8-2003-0045. The CAP must be continued until RCWMD can demonstrate that the site has been in continuous compliance with its water standard (under Title 27 §20390) for a period of three consecutive years.

C. PROVISIONS

1. RCWMD shall comply with all discharge prohibitions, discharge specifications, provisions, and monitoring and reporting requirements of this order immediately upon its adoption.

2. The disposal of liquid wastes into the landfill is prohibited, except as allowed by Discharge Specification A.5. of this order.

3. No additional waste shall be discharged to the ESL.

4. RCWMD shall maintain permanent monuments in California coordinates (or equivalent) to define the boundary of the footprint of the landfill in accordance with Title 27 §20950(d). The benchmarks shall be certified by a licensed surveyor or a professional civil engineer authorized to practice in California.

5. The water used at the ESL shall be limited to the minimum amount reasonably necessary for dust control purposes, fire suppression, and minor maintenance.

6. RCWMD shall notify the Regional Board immediately of any slope failures. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of a remediation workplan and schedule by the Executive Officer of the Regional Board.

7. At any time, RCWMD may file a written request, including appropriate supporting documents, with the Executive Officer of the Regional Board, proposing modifications to M&RP No. R8-2003-0045. RCWMD shall implement any changes in the revised M&RP approved by the Regional Board's Executive Officer upon receipt of a signed copy of the revised M&RP.

8. RCWMD shall continue to employ the existing LFG treatment system and other corrective measures pursuant to Title 27 §20430. Nevertheless, during any proof period and during the detection monitoring program following a successful proof period, RCWMD shall continue to operate the LFG extraction and treatment system as a normal operational measure.

9. This Order supersedes and replaces WDR Order No. 76-2. This order also supercedes and replaces ESL's coverage under Order No. 98-99.

D. DRAINAGE AND EROSION CONTROL

1. The drainage and erosion control structures established at the ESL shall be maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, and washout which could occur as a result of precipitation from a 100-year, 24-hour frequency storm. This shall be accomplished by, at a minimum, the following:

   a. Top deck surfaces shall be maintained at a minimum one percent (1%) slope, including structures which direct water to downdrains;

   b. The ESL shall be maintained to achieve compliance with Title 27 §20365.

   c. Downdrains and other necessary drainage structures must be maintained for all sideslopes as necessary; and

   d. Landfill gas condensate containment system structures shall be protected and maintained continuously to ensure their effectiveness and to prevent commingling of gas condensate with surface run-on and runoff.

2. Annually, **by October 1**, all drainage control system construction and maintenance activities shall be completed. By December 31 of each year, RCWMD shall submit a drainage control system maintenance report to the Executive Officer of the Regional Board. The drainage control system maintenance report shall include, but not be limited to, the following information:

   a. For the previous 12 months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm;

   b. A tabular summary of both new and existing drainage control structures, including the types and completion dates of maintenance activities performed for each of these structures; and

   c. An 11"x17" or larger site map indicating the locations of the elements listed in Item b., above, and the flow direction of all site drainage.

3. Periodic inspection of the waste management units, the drainage control system, and all containment structures shall be performed to assess the conditions of these facilities and to initiate corrective actions necessary to maintain compliance with Provisions C.1 and C.2 of this order.

4. The facility shall be surveyed every 5 years either by aerial surveillance or a licensed surveyor to assure compliance with the one percent slope requirements. By December 31 of each year, a map compiled from the survey data shall be submitted to the Regional Board, showing landfill elevations, the flow direction of all site drainage, the drainage control system, and containment structures. Prior to conducting periodic grading operations, RCWMD shall note on a map of the landfill the approximate location and outline of any areas where differential settlement is visually obvious. Each five-yearly iteration of the iso-settlement map shall show all areas where differential settlement has been noted and shall highlight areas of repeated or severe differential settlement as described in Title 27, §21090(e)(4).

5. RCWMD shall notify Regional Board staff by telephone (909-782-4130) within 24 hours of any failure of facilities necessary to maintain compliance with the requirements in this order. Within five days, the notification shall be submitted in writing to the Executive Officer.

6. RCWMD shall permit the Regional Board:

   a. Entry upon premises where a discharge source is located;

   b. To copy any records required to be kept under terms and conditions of this order;

   c. To photograph or videotape any structures, facilities, activities, or other phenomena that could result in adverse impacts to water quality and that are pertinent to compliance of the landfill with its WDRs; and

   d. To sample any discharges.

7. RCWMD shall notify the Regional Board in writing of any proposed change in ownership or responsibility for closure or post-closure maintenance of the landfill. This notification shall be given prior to the effective date of the change and shall include a statement by the new discharger that closure and post-closure maintenance will be in compliance with any existing WDRs and any revisions thereof.

F. PERMIT REVISION

1. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the federal Clean Water Act (CWA), 40CFR, or Title 27, or amendments thereto, the Regional Board will revise and modify this order in accordance with such standards.

2. This order may be modified to address any changes in state or federal plans, policies or regulations that would affect the water quality standards for the discharges.

3. Any noncompliance with this order constitutes a violation of the California Water Code and Title 27, and is grounds for enforcement action.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on July 1, 2003.

Gerard J. Thibeault
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

MONITORING AND REPORTING PROGRAM (M&RP) NO. R8-2003-0045 FOR ELSINORE SANITARY LANDFILL OPERATED BY THE RIVERSIDE COUNTY WASTE MANAGEMENT DEPARTMENT

A. GENERAL

1. Riverside County Waste Management Department (hereinafter RCWMD) shall perform the monitoring activities in compliance with the water quality protection standards and requirements of Title 27, §20390.

2. The concentration limit for any given Constituent of Concern (COC) or Monitoring Parameter in a given monitored medium (e.g., the uppermost aquifer) at a MSW landfill shall be in accordance with Title 27, §20400 and §20415(e)(6,7, and 10), and shall be used as the basis of comparison with data from the monitoring points in that monitored medium.

3. Monitoring Points and Background Monitoring Points selection shall be in accordance with Title 27, §20405. For the ESL, the background monitoring point is groundwater monitoring well E-1 and the point of compliance wells are E-2 and E-3. Monitoring well E-4 must be monitored to evaluate concentrations of LFG entering this well from the ESL.

4. Monitoring parameters:

   a. RCWMD shall analyze separate water samples from each groundwater monitoring well for the monitoring parameters in Attachment 1 of this M&RP, and shall test the resulting data using one of the statistical or non-statistical methods listed in Title 27, §20415(e).

      i. **Monitoring parameters that use statistical methods**:

         (a) **Metals surrogates** - pH, total dissolved solids (TDS), chloride, sulfate, and nitrate as nitrogen, or other constituents as approved; and

         (b) **Each VOC in background** - Each VOC that exceeds its respective method detection limit (MDL) in at least ten percent of the samples taken from the background monitoring points for a monitored water-bearing medium (i.e., surface water body, aquifer, perched zone, or soil-pore liquid) during a given Reporting Period.

      ii. **Monitoring parameter that uses non-statistical methods**:

         (a) Composite monitoring parameter "VOC_{water}."

b. Monitoring parameters shall be approved by the Executive Officer of the Regional Board. The Executive Officer may approve alternative monitoring parameters that meet the requirements Title 27, §§20380 et seq. The Executive Officer may also approve alternative statistical or non-statistical methods that meet the requirements of Title 27, §20415(e).

5. RCWMD must monitor for COCs as follows:

a. **Known constituents plus Appendix II**

i. The "COC list" (list of Constituents of Concern required under Title 27, §20395) includes all constituents listed in Attachment 1 of this M&RP.

ii. RCWMD shall monitor all COCs every five years, pursuant to Title 27, §20420(g).

b. **Background sampling for new constituents** - For each newly detected Appendix II constituent that is added to the existing monitoring parameter list, RCWMD shall establish a reference background value by analyzing at least one sample each quarter from the background monitoring point for a period of at least one year. Once this reference set of background data is collected, the discharger shall include it as a separate, identified item in the next monitoring report submittal. Existing background data for the newly identified Appendix II constituents may be substituted for additional background sampling with the approval of the Executive Officer of the Regional Board.

B. MONITORING PROGRAM

1. Water Quality Monitoring

a. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA Publication "SW-846").

b. The discharger shall comply with the requirements of Title 27, §20415 for the water quality monitoring program developed to satisfy §20430 of Title 27 and the requirements of this order.

i. The ground water monitoring shall meet the requirements of Title 27, §20415(b).

ii. All general monitoring requirements shall be in accordance with Title 27, §20415(e).

c. Monitoring parameters for the required water quality monitoring programs for the landfill are specified in Attachment 1 and Tables B, C, and D of this M&RP. Attachment 1 and Tables A, B, C and D may be revised and approved by the Executive Officer of the Regional Board as necessary to reflect changes in the monitoring parameters for the required water quality programs.

2. **General Site Monitoring** – All deficiencies identified during general site monitoring shall be documented, and the information transmitted via FAX to the Regional Board within 48 hours of occurrence. This same documentation must also be submitted as part of the reports described in item C.2 of this M&RP.

   a. At a minimum, all systems, such as landfill gas condensate, shall be inspected and evaluated on a monthly basis for their effectiveness. All deficiencies identified and the dates and types of corrective action taken shall be recorded in a permanent log. All deficiencies shall be photographed for the record. The volume of liquids collected in the containment structures shall be recorded monthly. Liquid samples, such as gas condensate, shall be collected in accordance with the monitoring frequency in Attachment 1, and analyzed for constituents specified for each landfill in Tables B, C and D of this M&RP.

   b. Monthly, the discharger shall inspect the waste management unit and shall evaluate their effectiveness to comply with Section D.1 - Drainage and Erosion Control of Order No. R8-2003-0045. All areas of slope failure, differential settlement, fissuring, erosion, ponding, leachate staining, and seepage into or from the landfill shall be identified, field-marked, and documented. In the event seepage is discovered, the location of each seep shall be mapped and a mitigation plan submitted for the approval of the Executive Officer of the Regional Board. All findings shall be photographed for the record.

   c. At a minimum, all run-on and runoff drainage control structures shall be inspected and evaluated quarterly for their effectiveness. During dry weather conditions, the effectiveness of the drainage control system shall be evaluated on the basis of its conformance to the as-built drawings, or revised drawings, for the system. All deficiencies shall be identified, recorded and mitigated.

   d. Every five years, **by October 15 of that year**, an aerial or ground survey of the landfill facility shall be performed in accordance with the schedule in Attachment 1 and Table A of this M&RP.

C. REPORTING

1. **Monitoring report contents** - All 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:

   a. **Transmittal letter** - A letter summarizing the essential points in the report. This letter shall include a discussion of any requirement violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations;

   b. **Compliance evaluation summary** - For groundwater monitoring and COC reports, a compliance evaluation summary shall be included which references the sampling and quality assurance plans. The compliance evaluation summary shall include a discussion of the actual activities for at least the following:

i. **Flow rate/direction** - For each monitored ground water body, a description and graphical presentation (e.g., arrow on a map) of the velocity and direction of ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality samples. Water elevations must be presented adjacent to the appropriate well location on the graphical presentation;

ii. **Well information** - For each monitoring well addressed by the report, a description of the method and time of water level measurement, and a description of the method of purging used before sampling to remove stagnant water in the well, pursuant to Title 27, §20415(e)(12)(B); and

iii. **Sampling Information** - For each monitoring point addressed by the report, a description of the type of pump or other device used and its vertical 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 actually taking the samples, and any other observations);

c. **Map** - A map (or copy of an aerial photograph) showing the locations of observation stations and monitoring points;

d. **Laboratory data** - The laboratory results of all analyses shall be submitted in accordance with section A.4.a of this M&RP;

e. **Drainage and erosion control system** - A statement as to the condition and performance of the drainage and erosion control systems; and

f. **Conclusion** – A written summary of monitoring results and monitoring and control system(s), indicating any changes made or observed since the previous report.

2. **Compliance monitoring reports** – Semi-annually, the discharger shall submit general site and water quality monitoring and analytical data (pursuant to items B.1, B.2.a, b, and c of this M&RP) for the monitoring periods and reporting due dates specified in Table A of this M&RP. The discharger may propose an alternate schedule, and the Executive Officer may approve the proposal or require the discharger to comply under an alternate reporting frequency.

3. **Annual summary report** - The discharger shall submit an annual report to the Regional Board covering the previous monitoring year (April 1 of the previous year through March 31 of the following year). The annual summary reports are due on April 30. This report may be combined with the detection monitoring report period ending March 31, and shall meet the following requirements:

a. **Graphical Presentation** - Graphing the Analytical Data shall be in accordance with Title 27, §20415(e)(14);

b. **Table and diskette(s)** – Data for all monitoring parameters detected during the previous twelve months shall be presented in tabular form.

c. **Compliance record discussion** - A comprehensive discussion of the compliance record, and of any corrective actions taken or planned which may be needed to bring the discharger into full compliance with the landfill's waste discharge requirements;

d. **Summary of changes** - A written summary of monitoring results and monitoring and control system(s), indicating any changes made or observed since the previous annual report; and

e. **Landfill gas control** - An evaluation of the effectiveness of the landfill gas system, pursuant to Title 27, §20340(b, c, & d).

4. **Annual drainage control and maintenance report** – By **October 1** of each year, all drainage and erosion control system construction and maintenance activities shall be completed. In accordance with Section D.2 - Drainage and Erosion Control of WDR Order No. R8-2003-0045, annually, by December 31, a site drainage control and maintenance report containing the following information shall be submitted:

   a. A summary of the containment structures, waste management unit, and drainage control system records for the monitoring period. The summary shall include a list of deficiencies identified and the dates and types of corrective actions taken to achieve compliance with the requirements contained in this order. If corrective actions for identified deficiencies could not be implemented by the end of the monitoring period; the dischargers shall provide the reason(s) for noncompliance and a time schedule for implementing the corrective actions;

   b. For the previous 12 months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm;

   c. A tabular summary of the new and existing drainage control structures including the types and completion dates of maintenance activities performed for each of the structures; and

   d. An 11 X 17 inch (or better scale) facility site map required under Section D.4 - Drainage and Erosion Control of WDR Order No. R8-2003-0045, indicating the location of the elements listed in Item C.4.c of this M&RP, and the flow direction of site drainage.

5. **COC Report at least every five years** - In the absence of a release being indicated, the discharger shall monitor all constituents of concern (COCs) and submit a report (COC Report).

a. **Reporting period for COCs** - The discharger shall sample all approved monitoring points for each monitored medium for all COCs, as specified in Attachment 1 to this M&RP, every fifth year, beginning Fall 2005, with subsequent COC monitoring efforts being carried out every fifth year thereafter, alternately in the Spring (Reporting Period ends March 31) and Fall (Reporting Period ends September 30).

b. **COC report** - This report, which is due one month following the Reporting period, may be combined with any monitoring report or annual summary report.

6. **Reporting Schedule** - The discharger shall submit all reports/documents in accordance with the deadlines specified in Table A of this M&RP.

7. **Signature** - All reports shall be signed by a responsible officer or a duly authorized representative of the discharger and shall be submitted under penalty of perjury.

8. **Existing waste discharge requirements** - All terms and conditions contained in the existing waste discharge requirements for MSWLFs that are not amended by this order shall remain in effect and unchanged. All applicable provisions contained in this order supersede any conflicting provisions in the existing waste discharge requirements.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region.

Gerard J. Thibeault
Executive Officer

July 1, 2003

ATTACHMENT 1

1. Elsinore Landfill (closed)

Type of Program	Monitoring Parameters	Monitoring Frequency
Evaluation water quality monitoring	pH, total dissolved solids (TDS), nitrate, sulfate, potassium, chloride, and the 47 volatile organic compounds (VOCs) listed in Appendix I[1]	Semi-annually
Landfill gas (LFG) condensate monitoring	General minerals[3] and all Appendix II[2] constituents, except TCDD and pesticides	Annually
COC analysis	General minerals[3] and the Appendix II[2] constituents	Once every five years
Aerial or ground survey	Not applicable	Once every five years.

1 See Table B.

2 See Table C.

3 See Table D.

TABLE A

MONITORING AND REPORTING

Task Description	Monitoring Period	Report Due Date
Semi-annual general site monitoring	October 1 - March 31	April 30 of each year
	April 1 - September 30	October 31 of each year
Annual drainage control and maintenance	By October 1 of each year	December 31 of each year
Aerial or ground survey	By October 15 of every fifth year	December 31 of every fifth year (see Attachment 1)
Annual summary	April 1 of previous year - March 31	April 30 of each year
COC analysis	April 1, 2005 – September 30, 2005	October 31, 2005, and every fifth year thereafter, alternately in the Spring (April 30) and Fall (October 31)

TABLE B

LIST OF APPENDIX I CONSTITUENTS

Inorganic Constituents	**Organic Constituents – continued**
Antimony	p-Dichlorobenzene; 1,4-Dichlorobenzene
Arsenic	trans-1,4-Dichloro-2-butene
Barium	1,1-Dichloroenthane; Ethylidene chloride
Beryllium	1,2-Dichloroethane; Ethylene dichloride
Cadmium	1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride
Chromium	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
Cobalt	trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
Copper	1,2-Dichloropropane; Propylene dichloride
Lead	cis-1,3-Dichloropropene
Nickel	trans-1,3-Dichloropropene
Selenium	Ethylbenzene
Silver	2-Hexanone; Methyl butyl ketone
Thallium	Methyl bromide; Bromomethane
Vanadium	Methyl chloride; Chloromethane
Zinc	Methylene bromide; Dibromomethane
	Methylene chloride; Dichloromethane
Organic Constituents	Methyl ethyl ketone; MEK; 2-Butanone
Acetone	Methyl iodide; Iodomethane
Acrylonitrile	4-Methyl-2-pentanone; Methyl isobutyl ketone
Benzene	Styrene
Bromochloromethane	1,1,1,2-Tetrachloroethane
Bromodichloromethane	1,1,2,2-Tetrachloroethane
Bromoform; Tribromomethane	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene
Carbon disulfide	Toluene
Carbon tetrachloride	1,1,1-Trichloroethane; Methylchloroform
Chlorobenzene	1,1,2-Trichloroethane
Chloroethane; Ethyl chloride	Trichloroethylene; Trichloroethene
Chloroform; Trichloromethane	Trichlorofluoromethane; CFC-11
Dibromochloromethane; Chlorodibromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane; DBCP	Vinyl acetate
1,2-Dibromoethane; Ethylene dibromide; EDB	Vinyl chloride
o-Dichlorobenzene; 1,2-Dichlorobenzene	Xylenes

TABLE C

LIST OF APPENDIX II CONSTITUENTS

Acenaphthene
Acetonitrile; Methyl cyanide
Acetophenone
2-Acetylaminofluorene; 2-AAF
Acrolein
Acrylonitrile
Aldrin
Allyl chloride
4-Aminobiphenyl
Anthracene
Antimony (total)
Arsenic (total)
Barium (total)
Benzene
Benzo[a]anthracene; Benzanthracene
Benzo[b] fluoranthene
Benzo[k] fluoranthene
Benzo[ghi] perylene
Benzo[a] pyrene
Benzyl alcohol
Beryllium (total)
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC; Lindane
Bis(2-chloroethoxy) methane
Bis(2-chloroethyl) ether; Dichloroethyl ether
Bis(2-chloro-1-methylethyl) ether; 2,2-Dichlorodiisopropyl ether; DCIP
Bis(2-ethylhexyl) phthalate
Bromochloromethane; Chlorobromomethane
Bromodichloromethane; Dibromochloromethane
Bromoform; Tribromomethane
4-Bromophenyl phenyl ether
Butyl benzyl phthalate; Benzyl butyl phthalate
Cadmium (total)
Carbon disufide
Carbon tetrachloride
Chlordane
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
p-Chloro-m-cresol; 4-Chloro-3-methylphenol
Chloroethane; Ethyl chloride
Chloroform; Trichloromethane
2-Chloronaphthalene
2-Chlorophenol
4-Chlorophenyl phenyl ether
Chloroprene
Chromium (total)
Chrysene
Cobalt (total)
Copper (total)
m-Cresol; 3-methylphenol
o-Cresol; 2-methylphenol
p-Cresol; 4-methylphenol
Cyanide
2,4-D; 2,4-Dichlorophenoxyacetic acid
4,4-DDD
4,4-DDE
4,4-DDT
Diallate
Dibenz [a,h] anthracene
Dibenzofuran
Dibromochloromethane; Chlorodibromomethane
1,2-Dibromo-3-chloropropane; DBCP
1,2-Dibromoethane; Ethylene dibromide; EDB
Di-n-butyl phthalate
o-Dichlorobenzene; 1,2-Dichlorobenzene
m-Dichlorobenzene; 1,3-Dichlorobenzene
p-Dichlorobenzene; 1,4-Dichlorobenzene
3,3-Dichlorobenzidine
trans-1,4-Dichloro-2-butene
Dichlorodifluoromethane; CFC 12
1,1-Dichloroethane; Ethyldidene chloride
1,2-Dichloroethane; Ethylene dichloride
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
2,4-Dichlorophenol
2,6-Dichlorophenol
1,2-Dichloropropane; Propylene dichloride
1,3-Dichloropropane; Trimethylene dichloride
2,2-Dichloropropane; Isopropylidene chloride
1,1-Dichloropropene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Dieldrin
Diethyl phthalate
0,0-Diethyl 0-2-pyrazinyl phosphorothioate; Thionazin
Dimethoate
p-(Dimethylamino)azobenzene
7,12-Dimethylbenz[a]anthracene
3,3-Dimethylbenzidine
2,4-Dimethylphenol; m-Xylenol
Dimethyl phthalate
m-Dinitrobenzene
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol
Di-n-octyl phthalate
Diphenylamine
Disulfoton
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Ethylbenzene
Ethyl methacrylate
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Hexachloropropene
2-Hexanone; Methyl butyl ketone
Indeno (1,2,3-cd) pyrene
Isobutyl alcohol
Isodrin
Isophorone
Isosafrole
Kepone
Lead (total)

TABLE C (continued)

LIST OF APPENDIX II CONSTITUENTS

Mercury (total)
Methacrylonitrile
Methapyrilene
Methoxychlor
Methyl bromide; Bromomethane
Methyl chloride; Chloromethane
3-Methylcholanthrene
Methyl ethyl ketone; MEK; 2-Butanone
Methyl iodide; Iodomethane
Methyl methacrylate
Methyl methanesulfonate
2-Methylnaphthalene
Methyl parathion; Parathion methyl
4-Methyl-2-pentanone; Methyl isobutyl ketone
Methylene bromide; Dibromomethane
Methylene chloride; Dichloromethane
Naphthalene
1,4-Naphthoquinone
1-Napthylamine
2-Napthylamine
Nickel (total)
o-Nitroaniline; 2-Nitroaniline
m-Nitroaniline; 3-Nitroaniline
p-Nitroaniline; 4-Nitroaniline
Nitrobenzene
o-Nitrophenol; 2-Nitrophenol
p-Nitrophenol; 4-Nitrophenol
N-Nitrosodi-n-butylamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine
N-Nitrosomethylethylamine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
5-Nitro-o-toluidine
Parathion
Pentachlorobenzene
Pentachloronitrobenzene
Pentachlorophenol
Phenacetin
Phenanthrene
Phenol
p-Phenylenediamine
Phorate
Polychlorinated biphenyls; PCBS; Aroclors
Pronamide
Propionitrile; Ethyl cyanide
Pyrene
Safrole
Selenium (total)
Silver (total)
Silvex; 2,4,5-TP
Styrene
Sulfide
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid
1,2,4,5-Tetrachlorobenzene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene
2,3,4,6-Tetrachlorophenol
Thallium (total)
Tin (total)
Toluene
o-Toluidine
Toxaphene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane; Methylchloroform
1,1,2-Trichloroethane
Trichloroethylene; Trichloroethene
Trichlorofluoromethane; CFC-1 I
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene
Vanadium (total)
Vinyl acetate
Vinyl chloride; Chloroethene
Xylenes (total)
Zinc (total)

TABLE D

LIST OF GENERAL MINERALS

Parameter	EPA Method	Parameter	EPA Method
GENERAL		**GENERAL - CONT'D**	
Total Hardness	130	Total Dissolved Solids	160.1
Bicarbonate (HCO_3)	310.2	Chemical Oxygen Demand	410
Carbonate ($CaCO_3$)	310.2	Phenols	420.1
Total Alkalinity	310.1	Total Organic Carbon	415
Total Cations	[1]	Total Organic Halogens	450.1
Total Anions	[1]	Calcium (Ca)	200.7/215
Hydroxide (OH)	[2]	Magnesium (Mg)	200.7/242.1
Chloride (Cl)	325	Manganese (Mn)	200.7/243.1
Fluoride (F)	340	Potassium (K)	200.7/258.1
Nitrate (NO_3)	353.2	Sodium (Na)	200.7/273.1
Sulfate (SO_4)	375	Iron (Fe)	200.7/236.1
Phosphate (PO_4)	365.2	Zinc (Zn)	200.7/289.1
Total Phosphorus	365.1/365.2		
Boron (B)	212.3/200.7		
Specific Conductance (Electrical Conductivity - EC)	120.1		
pH	150.1		

[1] Total cations and anions are determined by the summation of all cations and anions, respectively, in the sample analyzed.
[2] The standard method, SM 2330B, in the "Standard Methods for the Examination of Water and Wastewater" for hydroxide ion analysis shall be used.

California Regional Water Quality Control Board
Santa Ana Region

July 1, 2003

STAFF REPORT

ITEM: 11

SUBJECT: Waste Discharge Requirements for Riverside County Waste Management Department, Elsinore Sanitary Landfill, Order No. R8-2003-0045

DISCUSSION:

The Riverside County Waste Management Department (hereinafter discharger) owns and operates the Elsinore Sanitary Landfill (ESL) located at 2250 Franklin Street, east of Interstate 15 in the City of Lake Elsinore. The ESL is a Closed Class III landfill that stopped accepting municipal solid waste (MSW) in 1986.

The discharger is currently regulated under Waste Discharge Requirements (WDRs) Orders No. 76-2 and 98-99. Due to detections of "measurably significant" releases of volatile organic compounds (VOCs) in downgradient monitoring wells of the ESL, the ESL was placed in an Evaluation Monitoring Program (EMP) in accordance with §20425 of Title 27 of the California Code of Regulations (CCR) and the parameters and schedules set forth in Monitoring and Reporting Program (M&RP) No. 98-99-02. To reduce the source of contamination and to prevent further contamination of groundwater, a gas collection system was installed and began operating in April 1993. The RCWMD also constructed a final cover in accordance with closure and post-closure standards of Title 14 of the CCR, Chapter 3, Section 7.8 in 1994 to ensure the containment of the waste materials and to minimize the infiltration of rain water into the waste materials. To improve the removal of LFG from the landfill, additional gas collection wells were installed in the interior portion of the waste prism in 1996. With the interim measures in place, the VOC concentrations detected in the downgradient monitoring wells are currently decreasing (E-2) or staying the same (E-3) below the State and Federal maximum contaminant levels (MCLs).

On August 15, 2002, RCWMD submitted Joint Technical Document (JTD) Addendum No. 1 to request a Corrective Action Program (CAP) for the ESL. Regional Board staff has reviewed the JTD Addendum No. 1 for the ESL and finds that JTD Addendum No. 1 includes all the required information to place the ESL into a CAP in accordance with §20430 of Title 27.

RECOMMENDATION:

Adopt Order No. R8-2003-0045, as presented.

California Regional Water Quality Control Board
Santa Ana Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb8
3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (909) 782-4130 - FAX (909) 781-6288

Gray Davis
Governor

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.swrcb.ca.gov/rwqcb8.

July 8, 2003

Joseph R. McCann
General Manager-Chief Engineer
Riverside County Waste Management Dept.
14310 Frederick Street
Moreno Valley, CA 92553

TRANSMITTAL OF ADOPTED ORDER NO. R8-2003-0045

Dear Mr. McCann:

At the regular Board Meeting held on July 1, 2003, the Regional Board adopted Order No. R8-2003-0045, Waste Discharge Requirements for Elsinore Sanitary Landfill, replacing Orders No. 76-2 and 98-99. A certified copy is enclosed for your records.

Sincerely,

BARBARA LAFFOON
Executive Assistant

Enclosure: Adopted Order No. R8-2003-0045

c. State Water Resources Control Board, Division of Water Quality, James Maughan
United States Environmental Protection Agency, WTR 5, Permits Section, Terry Oda