

California Regional Water Quality Control Board

Los Angeles Region



Winston H. Hickox Secretary for Environmental Protection Over 50 Years Serving Coastal Los Angeles and Ventura Counties Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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September 25, 2001

Carlos A. Hernandez Director of Financial Planning Division Los Angeles County Sheriffs Department 1000 South Fremont Avenue, Unit 47 Building A-9East, 5th Floor North Alhambra, CA 91803

Dear Mr. Hernandez:

WASTE DISCHARGE REQUIREMENTS – PETER PITCHESS LANDFILL (FILE NO. 75-014)

Reference is made to our letter dated August 8, 2001, which transmitted a copy of tentative waste discharge requirements for the subject sites.

Pursuant to Division 7 of the California Water Code, this Regional Board at a public meeting held on September 19, 2001, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. 01-133 relative to the Peter Pitchess Landfill. A Copy of the order is attached.

All monitoring reports should be sent to the Regional Board, Attention: Information Technology Unit. Please reference all technical and monitoring reports for the Peter Pitchess Landfill to our Compliance File No. CI-6198.

If you have any questions, please call me at (213) 576-6719, or Mr. Enrique Casas at (213) 576-6724.

Rodny H- Nelson

Rodney H. Nelson Senior Engineering Geologist Landfills Unit

cc: See mailing list

Enclosures (all)

California Environmental Protection Agency

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Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

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

ORDER NO. 01-133

WASTE DISCHARGE REQUIREMENTS AND CLOSURE AND POST-CLOSURE MAINTENANCE

LOS ANGELES COUNTY SHERIFF DEPARTMENT (PETER J. PITCHESS LANDFILL) (File No. 75-014)

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

- 1. The Peter J. Pitchess Landfill, also known as the Wayside Landfill, is a closed Class III landfill located on the Peter J. Pitchess Honor Rancho (Honor Rancho), a detention facility owned and operated by the Los Angeles County Sheriffs Department (Figure 1, attached). In addition, an inert waste disposal site is also located on the Honor Rancho and is incorporated in these Waste Discharge Requirements (WDRs).
- 2. The Honor Rancho is located at 29300 the Old Road, Saugus, CA 91350.
- 3. The County of Los Angeles, Office of the Sheriff (County), filed a report of waste discharge for two existing landfilling sites at the Honor Rancho on April 7, 1975. In 1975 these two sites, a Class III landfill and inert waste disposal site, became subject to WDRs under Regional Board Order No. 75-114.
- 4. Two other small disposal sites (referred to as the "abandoned landfills") occur on the Honor Rancho (Figure 2, attached) and are located southeast of the Class III landfill. The abandoned landfills have been separately investigated by the County under the jurisdiction of this Regional Board and are not subject to these WDRs.
- 5. Beginning August 19, 1986, the County Sanitation Districts of Los Angeles County (Sanitation Districts) discharged liquid digested sludge from their Saugus and Valencia Water Reclamation Plants through land application at the Honor Rancho. Sludge disposal occurred in the vicinity of the inert waste disposal site on a strip of land bounded on the west by Interstate 5 (Figure 3, attached). The land application of digested sewage was conducted under separate WDRs (Order No. 86-58) and were not subject to the WDRs for landfilling at the Honor Rancho. By 1996, the discharge of liquid digested sludge had been terminated and on November 4, 1996, Order 86-58 for land application of digested sewage was rescinded (Order 96-086).
- 6. Nonhazardous solid waste landfills have been regulated by the State Water Resources Control Board and the Regional Boards since the 1960's through the issuance of WDRs.

The applicable regulations governing landfills in California, Division 3, Chapter 15 (Discharges of Waste to Land) of Title 23, California Code of Regulations (23 CCR), are now contained in California Code of Regulations Title 27 (27 CCR).

- 7. On September 27, 1993, Order 75-114 was amended when the Regional Board adopted Order No. 93-062 incorporating federal Resource Conservation and Recovery Act Subtitle-D (Subtitle-D) regulations for municipal solid waste (Class III) landfills. Subtitle-D regulations do not apply to the inert waste disposal site.
- 8. The Class III landfill was in operation from 1958 until October 1993. Operations at the inert waste disposal site began in the 1950s and the site was abandoned prior to 1970.
- 9. The Class III landfill is currently regulated by WDRs under Regional Board Order Nos. 75-114 and 93-062. These WDRs are being updated to incorporate applicable closure and post-closure requirements of 27 CCR and Subtitle-D.
- 10. The inert waste disposal site is currently regulated by Regional Board Order Nos. 75-114. There are no applicable closure and post-closure requirements for inert waste disposal site contained in 27 CCR or Subtitle-D. The WDRs are being updated to assure that Best Management Practices (BMPs) are employed during the post-closure period at the inert waste disposal site. The inert waste disposal site is only subject to those requirements in these WDRs that specifically refer to the inert waste disposal site.
- 11. The Honor Rancho is composed of two topographically distinct areas; the relatively flat, alluviated area of Castaic Valley adjacent to Castaic Creek, and hilly terrain located east of Castaic Valley (Figure 4, attached).
- 12. Landfilling for the Class III landfill was conducted in an unnamed tributary canyon of Dairy Valley that, in turn, is tributary to Castaic Valley. The inert waste disposal site was on level land adjacent to the partially improved channel of Castaic Creek.
- 13. The Honor Rancho property is approximately 2800 acres in size (Figure 1, attached). The Class III landfill occupies approximately 54 acres of which approximately 15 acres have been landfilled. The inert waste disposal site is comprised of approximately 5 acres that were landfilled.
- 14. The Class III landfill was operated as a modified "cut and cover" landfill and later a cut and cover canyon balefill. Wastes in the Class III disposal site consisted primarily of household-type refuse from the operation of the detention facility, and small amounts of wastes from farming activities. The inert waste disposal site was operated as a modified "cut and cover" landfill. The County does not have records to indicate the amount or type of wastes disposed of at the inert waste disposal site. The site is classified as an inert waste disposal site with wastes consisting of broken concrete, stones, dirt, flood debris, and asphaltic pavement that resulted from construction or grading operations.

However, this landfill may contain some decomposable solids such as plant trimmings and paper products.

- 15. The Honor Rancho is situated within the San Gabriel Mountains, and is traversed by the San Gabriel Fault Zone, a major structural feature in the region (Figure 3, attached). The Class III landfill is on the upthrown side of the fault and is located on bedrock of the Saugus Formation. The area immediately west of the Class III landfill lies downdip of the fault in alluvial material. Bedrock of the Saugus Formation consists of moderately indurated, thinly stratified conglomeratic sandstone beds ranging from 0.6 to 3.0 meters (2 to 10 feet) in thickness. The inert waste disposal site at Castaic Creek is underlain by non-indurated sediments composed primarily of silty-sands and gravels.
- 16. Mapped splays of the active San Gabriel Fault Zone flank both the north and south sides of the Class III landfill. The closest known active strand of the San Gabriel Fault occurs within about one mile to the southeast of the Class III landfill. The active Holser and Oak Ridge faults are located three and nine miles southwest of the Class III landfill, respectively. The San Cayetano Fault is exposed roughly five miles west of the Class III landfill. The Clearwater Fault is located about 10 miles northeast of the Class III landfill. The Santa Susana thrust fault underlies much of the Santa Susana Mountains to the south of the Class III landfill but is exposed roughly 15 miles south of the site. The nearest approach of the active San Andreas Fault is about 16 miles to the northeast of the site.
- 17. Three significant earthquakes have occurred within 30 miles of the Class III landfill. The epicenters of the 1971 San Fernando earthquake (M6.6) and 1994 Northridge earthquake (M6.7) are located approximately 12 miles to the southeast and 18 miles to the south of the Class III landfill, respectively. The epicenter of the 1854 Fort Tejon earthquake (M7.9) is located roughly 22 miles to the north of the site.
- 18. The Honor Rancho property is located within the Eastern Hydrologic Subarea of the Upper Santa Clara River Hydroglogic Subunit in the Santa Clara-Calleguas Hydrologic Unit.
- 19. The beneficial uses of groundwaters in the Castaic Valley of the Eastern Santa Clara Groundwater Basin are:
 - a. Municipal and Domestic Supply (MUN)
 - b. Industrial Service Supply (IND)
 - c. Industrial Process Supply (PROC)
 - d. Agricultural Supply (AGR)

The beneficial use of groundwaters in the Saugus Aquifer of the Eastern Santa Clara Groundwater Basin is municipal and domestic supply.

- 20. The Class III landfill overlies the Saugus Aquifer. The groundwater of the Saugus Aquifer generally contains elevated concentrations of total dissolved solids, calcium and sulfate. The calcium and sulfate originate from the gypsum-bearing sedimentary rocks that underlie the aquifer, upstream from the site. The Dairy Valley Aquifer lies immediately west of the Saugus Aquifer and is approximately 100 feet lower in elevation. It is downgradient of the Class III landfill. The groundwater of the Dairy Valley Aquifer generally contains elevated concentrations of total dissolved solids, chloride and sulfate.
- 21. The inert disposal site is located in the Castaic Valley Alluvial Aquifer (Figure 4, attached), which is downgradient of the Saugus Aquifer and Dairy Valley Aquifer. The groundwater of the Castaic Valley Alluvial Aquifer generally contains elevated concentrations of total dissolved solids, calcium and sulfate.
- 22. The Class III landfill is located in property designated as Public and Semi-Public facilities (Los Angeles County General Plan, Figure 5, attached). The nearest buildings are the high security Detention Center facilities located approximately 200 feet to the north of the Class III landfill. No other structures are within 1000 feet of the Class III landfill. The adjacent land within one mile of the Class III landfill is designated as heavy agricultural, public facilities, and open space.
- 23. The majority of the Class III landfill consists of a relatively flat deck area comprising the eastern three-fourths of the site which is separated from a much smaller deck area on the west by an approximately 50-foot high 2.5:1 slope (horizontal to vertical). The natural ridges adjacent to the Class III landfill are approximately 100 feet above the existing surface of the landfill (Figure 6, attached).
- 24. The County proposes the post-closure end use of the Class III landfill to be non-irrigated open space.
- 25. The Class III landfill and inert waste disposal site are not lined and do not have a leachate collection and removal system. Two earth dams were constructed to contain disposal activities in the Class III landfill during landfilling operations.
- 26. The Class III landfill and inert waste disposal site do not have a landfill gas control system. Vadose zone gas at the Class III landfill was monitored at the site until 1992 at six perimeter gas monitoring probes (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) installed at depths of five and twenty feet. The probes were installed and monitored as part of the South Coast Air Quality Management District Rule 1150.1. No exceedances of the 5 percent methane standard at the property boundary were detected, therefore the monitoring was discontinued.
- 27. The County submitted a Solid Waste Assessment Test (SWAT) report dated April 19, 1989. Four groundwater monitoring wells (one upgradient and three downgradient) were installed at the Class III landfill for the SWAT investigation. The upgradient monitoring

well was installed in the Saugus Aquifer and the three downgradient monitoring wells were installed in the Dairy Valley Alluvial Aquifer. Four groundwater monitoring wells were also monitored at the inert waste disposal site for the SWAT investigation, consisting of existing groundwater wells constructed by the Sanitation Districts to monitor the discharged liquid digested sludge (as discussed in Item 5 above). All four groundwater monitoring wells for the inert waste disposal site were installed in the Castaic Valley Alluvial Aquifer. The SWAT concluded that the landfills may be affecting groundwater quality.

- 28. The existing groundwater monitoring system around the Class III landfill includes seven groundwater monitoring wells (MW-1 through MW-6, MW-6A) and four vadose zone monitoring wells (VW-1 through VW-4) (Figure 7, attached). MW-1, MW-2, MW-, MW-6 and MW-6A monitor the groundwater environment in the vicinity of the Class III landfill. (MW-4, and MW-5 monitor the groundwater environment in the vicinity of the abandoned landfills). The groundwater monitoring system for the inert waste disposal site consists of four groundwater monitoring wells (W-8, W-10, W-11 and W-16) and three vadose zone monitoring wells (V-1 through V-3) (Figure 8, attached). The groundwater monitoring systems at the Class III landfill and inert waste facilities are not currently being monitored, although this Regional Board requested in a letter dated April 25, 1994, that two additional semi-annual SWAT monitoring events be performed as a result of the water quality data collected during the SWAT program. On March 20, 1995, the County submitted a groundwater monitoring report for the investigation of the abandoned landfills (discussed in Item 4 above). This report also included the results of the first of the two additional SWAT monitoring events requested. The results of this monitoring event indicate that the Class III landfill may be affecting groundwater quality in the vicinity of the site. To date, the County has not completed the additional monitoring requested by this Regional Board. Groundwater monitoring is being required by these WDRs.
- 29. Surface drainage from the landfill is subject to State Board Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities".
- 30. The Class III landfill is located outside a 100-year flood plain according to the Federal Emergency Management Agency Flood Insurance Rate Map for Los Angeles County, California. The inert waste disposal site is located within the 100-year flood plain of Castaic Creek (Figure 9).
- 31. The County reports that the drainage and erosion control systems at the Class III landfill have been designed to accommodate a 24-hour, 100-year storm event.
- 32. 27 CCR requires a slope stability report when final slopes are designed to be steeper than 3:1 (horizontal to vertical) for Class III landfills. Because the proposed final slopes for

the Class III landfill do not exceed 3:1, a slope stability analysis has not been conducted by the County.

- 33. Climatic conditions at the Honor Rancho are semi-arid. Rainfall typically occurs between October and April with very little rainfall during the summer months. Average annual precipitation in the area is approximately 14 inches. Average annual evaporation in the area is approximately 80 inches.
- 34. The County completed a foundation soil characterization investigation for the Class III landfill. The thickness of the existing foundation soil is shown on Figure 6 (attached).
- 35. The County submitted a Final Closure/Post Closure Maintenance Plan (FCPCMP) on April 25, 1997 for the Class III landfill. On November 30, 1998, the Regional Board received revisions to the FCPCMP, dated October 1998, which contained responses to comments raised by the Regional Board, the Integrated Waste Management Board, and the Local Enforcement Agency. The FCPCMP was approved by Regional Board staff on February 10, 1999, contingent upon the completion of two additional semi-annual SWAT groundwater monitoring events. The SWAT groundwater monitoring events have not been completed to date. The FCPCMP was also approved by staff of the Los Angeles County Department of Health Services on December 17, 1998. In a letter dated, September 3, 1999, the California Integrated Waste Management Board (CIWMB) indicated that staff had completed review of the FCPCMP and had no additional comments but were unable to approve the plan because closure and postclosure maintenance funding requirements (per 27 CCR) had not been satisfactorily addressed. The CIWMB has yet to approve the FCPCMP.
- 36. The FCPCMP for the Class III landfill proposes the following:
 - I. CLOSURE
 - a. Final cover the County has proposed the minimum final cover standards contained in Titles 14 and 23 of the California Code of Regulations (now been combined into 27 CCR). The proposed final cover consists of, in ascending order:
 - i. Foundation Layer A minimum two-foot thick foundation layer comprised of random soils.
 - ii. Compacted Soil Layer A minimum one-foot thick layer of compacted fine-grained soils which will yield a hydraulic conductivity of 1×10^{-6} cm/sec, or less.
 - iii. Vegetative Layer a minimum one-foot thick vegetative layer of random soils.

The depth of the vegetative layer will enable adequate root depth for onsite vegetation and will provide protection of the low hydraulic conductivity compacted soil layer from root penetration and the drying effects of evapotranspiration.

- b. The proposed final grading has been designed to blend with the natural topography of the surrounding area. The slope dividing the upper and lower decks will have a maximum gradient of 3:1. Deck areas will have a minimum grade of 3% to allow for future settlement while still maintaining adequate drainage control.
- c. Erosion of the final cover will be prevented by a minimum slope of approximately 3% percent in deck areas and the planting of grasses to establish a vegetative cover. A vegetative cover seed mix consisting of Vulpia microstachys ("Small Fescue"), Poa secunda ("Bluegrass"), Hordeum californica "prostrate" ("Barley"), Nassella pulchia (""Purple Needle Grass), and Elymus glaucus "Anderson" ("Wild Rye"), is proposed. This seed mix is visually compatible with the off-site native plant community, thus it will provide a similar appearance to the surrounding native open space vegetation.
- d. Wastes at the Class III landfill were deposited between 1958 and 1993. Thus, because of the age and character of the underlying waste, a settlement analysis completed by the County indicates that the majority of settlement has already taken place and landfill settling will be negligible. Four settlement monuments are proposed to be placed on the landfill in order to monitor future settlement at the site.
- e. The final surface area of the Class III landfill will be sloped to prevent ponding and promote lateral run-off of stormwater which falls directly on the landfill. In addition, a perimeter drainage control system is proposed to divert stormwater run-on around the refuse fill area.
- f. The County reports that during the 30-year post-closure maintenance period, the average soil loss over the entire Class III landfill will be approximately 0.29 inches. The 30-year soil loss represents less than 1 percent of the total final cover thickness.
- g. Existing groundwater monitoring wells: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-6A, four vadose zone monitoring wells (VW-1 through VW-4) are not proposed to be monitored during the post-closure maintenance period.

- h. A landfill gas control system is not proposed for the site.
- i. An additional vadose zone gas probe is proposed, in addition to the six exising vadose zone gas probes (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6). The seven vadose zone gas probes will be monitored during the post-closure maintenance period.

II. POST-CLOSURE MAINTENANCE

a. The County will inspect the Landfill for the following:

	Inspection
	Period
1. Landfill Gas Migration Monitoring and Mainter	nance Quarterly
2. Groundwater System Monitoring and Maintenan	nce Annual
3. Final Cover Inspection and Maintenance	Quarterly
4. Settlement Monitoring and Maintenance	5-Years
5. Vegetative Cover Inspection and Maintenance	Semiannual
6. Access Road Inspection and Maintenance	Quarterly
7. Drainage Controls Inspection and Maintenance	Quarterly
8. Site Security	Quarterly

Appropriate measures will be taken to repair and correct any damage observed at the Landfill.

- 37. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. The Plan contains beneficial uses (municipal and domestic supply, agricultural supply, industrial process supply, industrial service supply, groundwater recharge, and freshwater replenishment) and water quality objectives for groundwater in the Region. The requirements in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
- 38. The County of Los Angeles Department of Health Services Environmental Health Solid Waste Management Program, as the lead agency for project compliance with the California Environmental Quality Act (CEQA; Public Resources Code, Section 21108 et seq.), approved the closure project Notice of Determination and Mitigated Negative Declaration on August 9, 1999.
- 39. In accordance with the Governor's Executive Order D-22-01, dated February 8, 2001, requiring any proposed activity be reviewed to determine whether such activity will cause additional energy usage, Regional Board staff have determined that implementation of these WDRs will not result in a significant change in energy usage.

- 40. The Regional Board has notified interested agencies and all known interested parties of its intent to issue post-closure maintenance requirements for these inactive landfills.
- 41. The Regional Board in a public meeting heard and considered all comments pertaining to post-closure maintenance of these inactive landfills.
- 42. The Regional Board finds that the County has not completed required groundwater monitoring at the site since March 20, 1995 and thus, is not in compliance with groundwater monitoring portions of the provisions of 27 CCR, as well as 40 CFR Parts 257 and 258, Subtitle D.

IT IS HEREBY ORDERED, that the Los Angeles County Sheriff Department shall comply with the following at the Peter J. Pitchess Landfill:

A. SPECIFICATIONS

- 1. The County shall comply with all applicable closure and post-closure requirements of 27 CCR, Subchapter 5, Article 2 (Closure and Post-Closure Maintenance Standards for Disposal Sites and Landfills).
- 2. The County shall remove and relocate any wastes that are discharged at the site in violation of these requirements.
- 3. The County shall install a final cover consisting of the following, in ascending order:
 - a. Foundation Layer A minimum two-foot thick foundation layer comprised of random soils.
 - b. Compacted Soil Layer A minimum one-foot thick layer of compacted fine-grained soils which will yield a hydraulic conductivity of 1×10^{-6} cm/sec, or less.
 - c. Vegetative Layer a minimum one-foot thick vegetative layer of random soils planted with a seed mix to match native vegetation.
- 4. All containment structures and erosion and drainage control systems at the Class III landfill and the inert waste disposal site shall be designed and constructed under direct supervision of a California-Registered Civil Engineer or Certified Engineering Geologist, and shall be certified by the individual as meeting the prescriptive standards and performance goals of 27 CCR.
- 5. The County shall maintain visible monuments identifying the boundary limits of the entire waste management facility.

- 6. By November 15, 2001, the County shall submit a technical report, to be approved by the Executive Officer, which identifies any monitoring wells or monitoring devices that penetrate the refuse fill at the site. This technical report must explain the value of these wells or devices for the purposes of water quality monitoring and/or post-closure maintenance operations. The County shall decommission any well or monitoring device that are not deemed valuable by this Regional Board for the purposes of water quality monitoring and/or post-closure maintenance operations. Decommissioning of any wells and or monitoring devices at the site shall be in accordance with California Well Standards (California Department of Water Resources Bulletin 74-90).
- 7. The County has not recently completed groundwater monitoring at the Class III landfill or the inert waste disposal site. Therefore, by November 15, 2001, the County shall submit a technical report, to be approved by the Executive Officer, that details the current conditions and effectiveness of all monitoring wells and monitoring devices to be maintained during the post-closure maintenance period. In lieu of demonstrating the effectiveness of all monitoring wells, the County may propose upgrades to the current groundwater monitoring systems at either of the landfills to ensure that they can detect water quality impacts if pollutants are released from either landfill to groundwater.

General Maintenance Requirements

- 8. The maintenance period for the Class III landfill and inert waste disposal site shall continue until this Regional Board determines that remaining wastes at the sites will not threaten water quality.
- 9. The County shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the County to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, and adequate laboratory and process controls including appropriate quality assurance procedures.
- 10. The County shall follow the proposed FCPCMP listed in Finding No. 36(I). If there is any conflict between provisions stated within the WDRs and the approved FCPCMP, the WDRs provisions will prevail.
- 11. The County shall conduct routine and periodic inspections as listed in Finding No. 36(II).
- 12. The County shall within 30 days, repair and restore to design conditions, and in accordance with construction specification, any deficiencies, damages to, or

failure of the final cover, final grades, side slopes, drainage systems, settlement, and monitoring systems.

- 13. The past discharge of wastes shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil or other geologic materials outside the Class III landfill or inert waste site, if such waste constituents could migrate to waters of the State in either the liquid or the gaseous phase, and cause conditions of contamination or pollution.
- 14. A thorough and comprehensive inspection shall be conducted by the County at least twice a year and immediately after any special events such as earthquakes, storms, or fires.
- 15. After a significant earthquake event, the County shall:
 - a. Immediately notify the Regional Board by phone; and
 - b. Within seven days submit to the Regional Board a detailed postearthquake report describing any physical damages to the containment features, groundwater monitoring and/or leachate control facilities and a corrective action plan to be implemented at the landfill for any physical damage to these facilities.
- 16. Water used for site maintenance shall be limited to amounts necessary for dust control.

Monitoring

- 17. The County shall use the constituents listed in Monitoring and Reporting Program No. CI-6198 and revisions thereto, as "monitoring parameters". These monitoring parameters are subject to the most appropriate statistical or non-statistical tests under the attached Monitoring and Reporting Program No. CI-6198, Section G (Statistical and Non-Statistical Analyses of Sample Data During a Detection Monitoring Program), and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer.
- 18. The County shall implement the attached Monitoring and Reporting Program No. CI-6198 and revisions thereto in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Class III landfill or inert waste disposal site, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the landfills.
- 19. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State

Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency (USEPA).

- 20. By November 15, 2001, the County shall submit a technical report, to be approved by the Executive Officer, to support the proposed lack of vadose zone monitoring at the Class III landfill and inert waste disposal site. In lieu of this technical report, the County shall submit a work plan for implementing vadose zone monitoring at the sites.
- 21. The County shall follow the Water Quality Protection Standards (WQPS) for detection monitoring established by the Regional Board in this Order pursuant to 27 CCR, Section 20390. The following are five parts of WQPS as established by the Regional Board:
 - a. In accordance with Title 27, California Code of Regulations, Section 20390, the following are WQPS for these facilities:

<u>Constituents</u>	<u>Units</u>	Maximum Value
Total dissolved solids (TDS)	mg/l	1000
Sulfate	mg/l	350
Chloride	mg/l	150
Boron	mg/l	1.0

WQPS may be modified by the Regional Board based on more recent or complete groundwater monitoring data such as from the monitoring network required by this Order, changes in background water quality, or for any other valid reason.

b. The County shall test for the monitoring parameters and the Constituents of Concern (COCs) listed below and in the Monitoring and Reporting Program No. CI-6198 and revisions thereto for:

Constituents

- 1. pH
- 2. Chemical Oxygen Demand (COD)
- 3. Total Organic Halides (TOX)
- 4. Total Organic Carbon (TOC)
- 5. Total Dissolved Solids (TDS)
- 6. Chloride
- 7. Sulfate
- 8. Boron
- 9. Hydroxide Alkalinity (CaCO₃)

- 10. Total Hardness (as CaCO₃)
- 11. Volatile Organics
- 12. Electrical Conductivity
- 13. Groundwater Elevation
- c. Concentration Limits The concentration limit for each monitoring parameter and COC for each monitoring point (as stated in Detection Monitoring Program 01-6198, Section F), shall be its background value as obtained during that reporting period.
- d. Monitoring points and background monitoring points for detection monitoring shall be those listed below and in Item F-20 of the attached Monitoring and Reporting Program No. CI-6198, and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer. Monitoring and background monitoring points are indicated below, and on Figure 7 (attached):

Class III Landfill:

- i. Background Point MW-2
- ii. Point of Compliance MW-1, MW-3, MW-4, and MW-5

Inert Waste Disposal Site:

- i. Background Point W-11
- ii. Point of Compliance W-8, W-10, and W-16
- e. Compliance period The estimated duration of the compliance period for the Class III landfill and the inert waste disposal site is five (5) years. Each time the standard is not met (i.e. releases discovered), the landfill begins a compliance period on the date the Regional Board directs the County to begin an Evaluation Monitoring Program (EMP). If the County's Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the compliance period, the compliance period is automatically extended until the landfill has been in continuous compliance for at least three consecutive years.
- 22. For each monitoring point described in this Order, the County shall monitor semiannually the following monitoring parameters in groundwater, and surface water, for the detection monitoring program. In determining whether measurably significant evidence of a release from the waste management unit exists, concentration limits of COCs, listed in Specification No. A-22(c) of this Order, shall be used for the following monitoring parameters:

Groundwater Monitoring Parameters	<u>Test Method</u>
COD	EPA 410.4

TOX	EPA 9020
TOC	EPA 415.1
TDS	EPA 160.1
Chloride	EPA 300.0
Sulfate	EPA 300.0
Boron	EPA 6010
Hydroxide Alkalinity (CaCO ₃)	Std. M2320B
Total Hardness (as CaCO ₃)	Std. M2340
Volatile Organics	EPA 8260
Electrical Conductivity	Field
рН	Field
Groundwater Elevation	Field

23. Once each year, during the Spring/Summer monitoring period, all wells shall be sampled and these samples analyzed for:

Groundwater Monitoring Parameters	<u>Test Method</u>
Volatiles*	EPA 8260
Semi-volatiles*	EPA 3510/8270
Pesticides*	EPA 3510/8080
PCB's*	EPA 3510/8080
Metals**	EPA 6010 (else, see below)
Biological Oxygen Demand	EPA 405.1
Bicarbonate	Std. Method 2320B
Carbonate	Std. Method 2320B
Foaming Agents	EPA 425.1
Herbicides	EPA 8150
Nitrate (as N)	EPA 300.0
Nitrite	EPA 300.0
Oil and Grease	EPA 413.2
Sulfate	EPA 300.0
Sulfides	EPA 376.2
Total cyanide	EPA 335.2
Total phenols	EPA 420.1
Turbidity	NTU; EPA 180.1

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

** Aluminum, Antimony, Arsenic (EPA 7060), Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Hexavalent chromium (Std. Method 3500 CrO), Lead, Magnesium, Mercury (EPA 7470), Molybdenum, Nickel, Potassium, Selenium (EPA 7740), Silver, Sodium, Strontium, Thallium, Tin, Vanadium, and Zinc

Erosion Control

- 24. Any necessary erosion control measures shall be implemented at the Class III landfill and the inert waste disposal site, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion, ponding, flooding, or to prevent surface drainage from contacting or percolating through wastes at the facilities on an annual basis. The annual erosion control measures shall be completed prior to the anticipated rainy season but not later than October 31. In addition, maintenance, and repairs necessitated by changing site conditions shall be made at any time of year. A description of all erosion control measures used at the sites shall be included in the annual monitoring report contained in the Monitoring and Reporting Program No. CI-6198.
- 25. Silt fences, hay bales, and other erosion control measures shall be used to manage surface water runoff from the Class III landfill and inert waste disposal site areas where landfill cover has recently been constructed, and from areas where landfill containment system construction is occurring.
- 26. At the Class III landfill and the inert waste disposal site, where flow concentrations result in erosive flow velocities, surface protection such as asphalt, concrete, riprap, silt fences or other erosion control materials shall be used for protection of drainage conveyance structures. Interim bench ditches shall be provided with erosion control material and riprap to control erosion where necessary.
- 27. At the Class III landfill and the inert waste disposal site, where high velocities occur at terminal ends of downchutes, or where downchutes cross landfill cover access roads, erosion control material shall be applied to exposed soil surfaces.
- 28. At the Class III landfill and the inert waste disposal site, energy dissipaters shall be installed to control erosion at locations where relatively high erosive flow velocities are anticipated.

Surface Drainage

29. At the Class III Landfill, the County shall install at a minimum, three settlement monuments on the landfill and one survey monument on native ground for monitoring refuse settlement at the site per the closure construction schedule pursuant to Specification A1. Also the entire permitted site shall be aerially photographed at the end of the closure activities and every five years throughout the post-closure maintenance period.

- 30. The Class III landfill and inert waste disposal site shall be protected from any washout or erosion of wastes or covering material, and from any inundation which could occur as a result of floods having a predicted frequency of once in 100 years.
- 31. Surface water runoff within the boundaries of the Class III landfill (i.e., precipitation that falls on the landfill cover) and the inert waste disposal site shall be collected by a system of berms, ditches, downchutes, swales and drainage channels, and shall be diverted off the landfills to either desilting basins or to natural watercourses offsite.
- 32. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources, shall not contact or percolate through wastes discharged at the Class III landfill or inert waste disposal site.
- 33. The exterior surfaces of the disposal areas, including the intermediate and final landfill covers at the Class III landfill and inert waste disposal site shall be graded and maintained to promote lateral runoff or precipitation and to prevent ponding.
- 34. The County shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures at the Class III or inert waste disposal site. The County shall submit to the Regional Board within fourteen days, a detailed report describing any physical damage to the cover, surface water diversion systems or groundwater monitoring systems associated with flooding or slope failure.

Reporting Requirements

- 35. The County shall notify Regional Board staff at least 30 days prior to any maintenance activities, for approval by the Executive Officer, which could alter existing surface drainage patterns or change existing slope configurations. These activities may include, but not be limited to, significant grading activities, the importation of fill material, the design and installation of soil borings, groundwater monitoring wells and other devices for site investigation purposes.
- 36. The County shall furnish to the Executive Officer, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The County shall also furnish to the Executive Officer, upon request, copies of records required by this Order.
- 37. The County shall notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage

between the current owner and new owner for construction, operation, closure, or post-closure maintenance of the landfill. This agreement shall include an acknowledgement that the existing owner is liable for violations up to the transfer date and that the new owner is liable from the transfer date on. The agreement shall include an acknowledgement that the new owners shall accept responsibility for compliance with this Order that includes the post-closure maintenance of the landfills.

- 38. Where the County becomes aware that it failed to submit any relevant facts in any report to the Regional Board, it shall submit such facts or information within seven days.
- 39. The County shall report any noncompliance. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the owner becomes aware of the circumstances. A written submission shall also be provided within seven days of the time that the owner becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- 40. The County shall report monitoring results at the intervals specified in Monitoring and Reporting Program No. CI-6198.
- 41. The County shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
- 42. The County shall report (on a quarterly basis) the total volume of any irrigation water used at the site each month.
- 43. All applications, reports, or information submitted to the Executive Officer shall be signed and certified as follows:
 - a. The applications, reports, or information shall be signed as follows:
 - i. For a corporation by a principal executive officer of at least the level of vice-president.

- ii. For a partnership or sole proprietorship by a general partner or the proprietor, respectively.
- iii. For a municipality, state, federal or other public agency by either a principal executive officer or ranking elected official.
- iv. For a military installation by the base commander or the person with overall responsibility for environmental matters in that branch of the military.
- b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph [a] of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
 - i. The authorization is made in writing by a person described in paragraph [a] of this provision;
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - iii. The written authorization is submitted to the Executive Officer.
- c. Any person signing a document under this Section shall make the following certification:

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

B. PROHIBITIONS

- 1. The discharge or deposit of waste, in any form, at the Class III landfill or the inert waste disposal site is prohibited.
- 2. Discharges of waste to land as a result of inadequate post-closure maintenance practices and that have not been specifically described to the Regional Board and for which valid WDRs are not in force, are prohibited.

- 3. The waste discharge at the Class III landfill or the inert waste site shall not cause the release of pollutants or waste constituents in a manner which could cause a condition of contamination or pollution to occur, as indicated by the most appropriate statistical (or non-statistical) data analysis method and retest method listed in Section G (Statistical and Non-Statistical Analyses of Sample Data During a Detection Monitoring Program) of the attached Monitoring and Reporting Program No. CI-6198 and revisions thereto.
- 4. The direct discharge of any waste to any surface waters or surface drainage courses is prohibited.
- 5. Odors, vectors, and other nuisances of waste origin beyond the limits of the landfill sites are prohibited.
- 6. Basin Plan prohibitions shall not be violated.

C. NOTIFICATIONS

- 1. Closure and post-closure maintenance of this waste management unit may be subject to regulations of the California Integrated Waste Management Board or the South Coast Air Quality Management District.
- 2. Definitions of terms used in this Order shall be as set forth in Monitoring and Reporting Program CI-6198, in 23 CCR, Chapter 15, and 27 CCR.

D. **PROVISIONS**

- 1. This Order does not authorize violation of any federal, state, or local laws or regulations.
- 2. The County shall maintain a copy of this Order at its local offices and shall ensure that all site-operating personnel are familiar with its content and that it is available to operating personnel at all times.
- 3. The County shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the County's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

- b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Order;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
- 4. All regulated disposal systems shall be readily accessible for sampling and inspection.
- 5. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements", adopted November 7, 1990 (Attachment 1). If there is any conflict between provisions stated herein and the "Standard Provisions Applicable to Waste Discharge Requirements", these provisions stated herein will prevail.
- 6. The County is the responsible party for the WDRs and the Monitoring and Reporting Program for the facility. The County shall comply with all conditions of these WDRs. Violations may result in enforcement actions, including Regional Board orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.
- 7. The County shall submit to this Regional Board and to the California Integrated Waste Management Board (Waste Board), evidence of financial assurance for closure and post-closure maintenance, pursuant to 27 CCR, Chapter 6. The post-closure period shall be at least 30 years. However, the post-closure maintenance period shall extend as long as wastes pose a threat to water quality.
- 8. Within 180 days of the adoption of this Order, the County shall submit to the Waste Board, in accordance with 27 CCR, Chapter 6, assurance of financial responsibility in an amount acceptable to the Regional Board's Executive Officer for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill.
- 9. This Order is subject to Regional Board review and updating as necessary to comply with changing State or Federal laws, regulations, policies, or guidelines.

- 10. The County shall comply with all conditions of this Order and any additional conditions prescribed by the Regional Board in addenda thereto. Noncompliance with this Order constitutes a violation of the CWC and is grounds for:
 - a. enforcement action;
 - b. termination, revocation and reissuance, or modification of this Order; or
 - c. denial of a Report of Waste Discharge in application for new or revised WDRs.
- 11. The County shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- 12. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order;
 - b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
 - c. A change in any condition that requires either a temporary, permanent reduction, or elimination of the authorized discharge.
- 13. This Order is not transferable to any person except after notice to the Executive Officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the County and incorporate such other requirements as may be necessary under the CWC. The County shall submit notice of any proposed transfer of this Order's responsibility and coverage as described under Specification No. A-38 of this Order.
- 14. In accordance with Water Code Section 13263(g), these requirements shall not create a vested right to continue to discharge. All discharges of waste into the waters of the State are privileges, not rights, and are subject to rescission or modification.
- 15. The filing of a request by the County for the modification, revocation and reissuance, or termination of this Order or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

- 16. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
- 17. This Order becomes effective on the date of adoption by this Regional Board.
- 18. Regional Board Order No. 75-114, adopted on October 20, 1975, is hereby rescinded.

I, Dennis A. Dickerson, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 19, 2001.

0.2 i A.

DENNIS A. DICKERSON Executive Officer

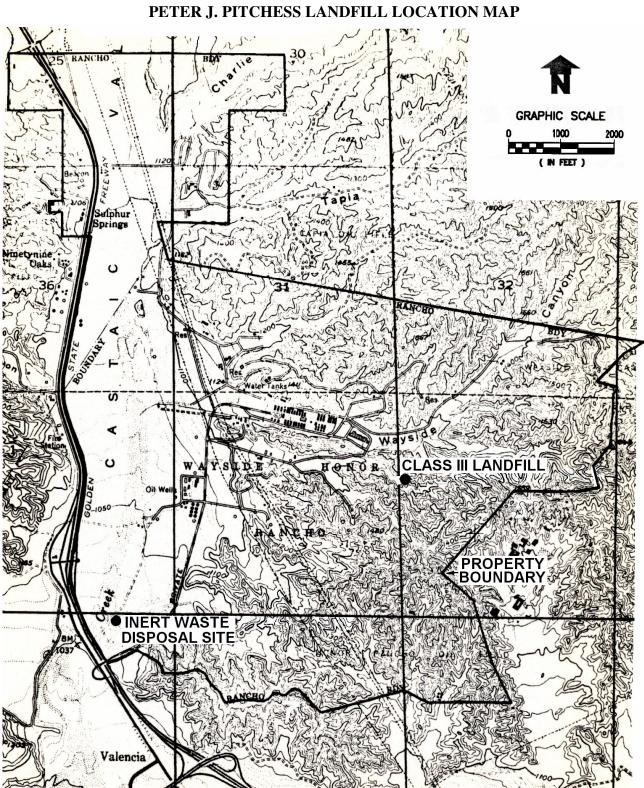
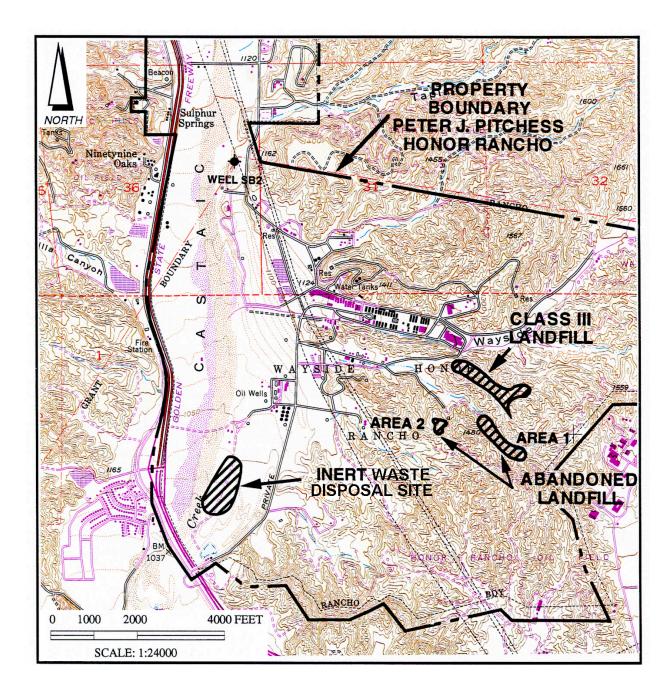


FIGURE 1:

FIGURE 2: LOCATION MAP OF "ABANDONED LANDFILLS"



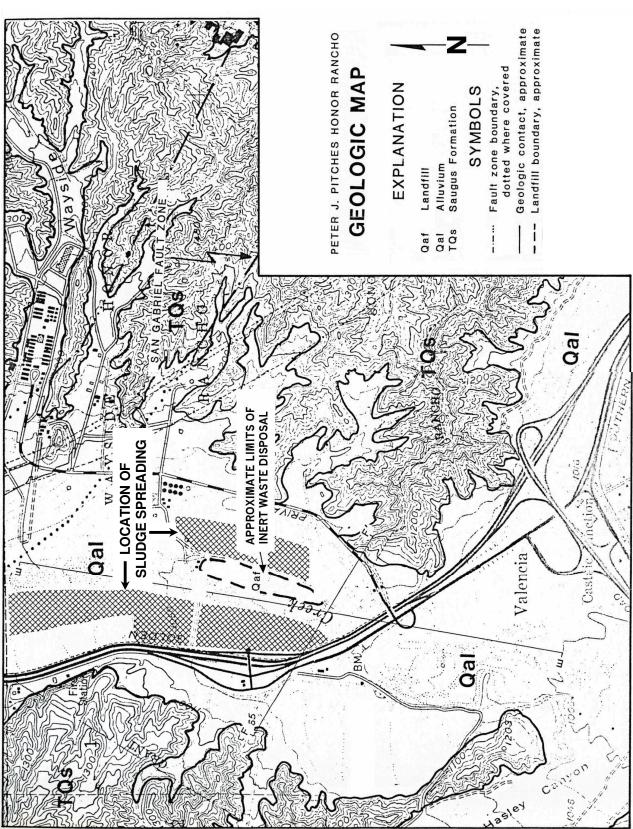


FIGURE 3: PETER J. PITCHESS LANDFILL GEOLOGIC MAP

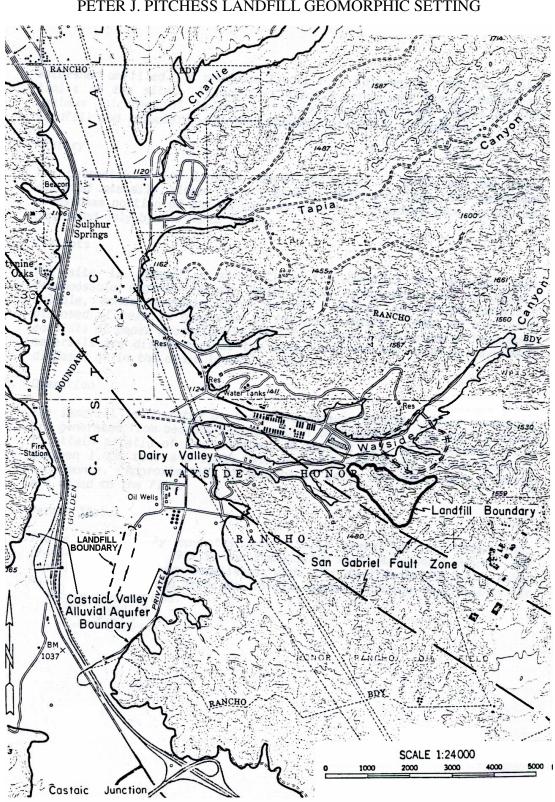


FIGURE 4: PETER J. PITCHESS LANDFILL GEOMORPHIC SETTING

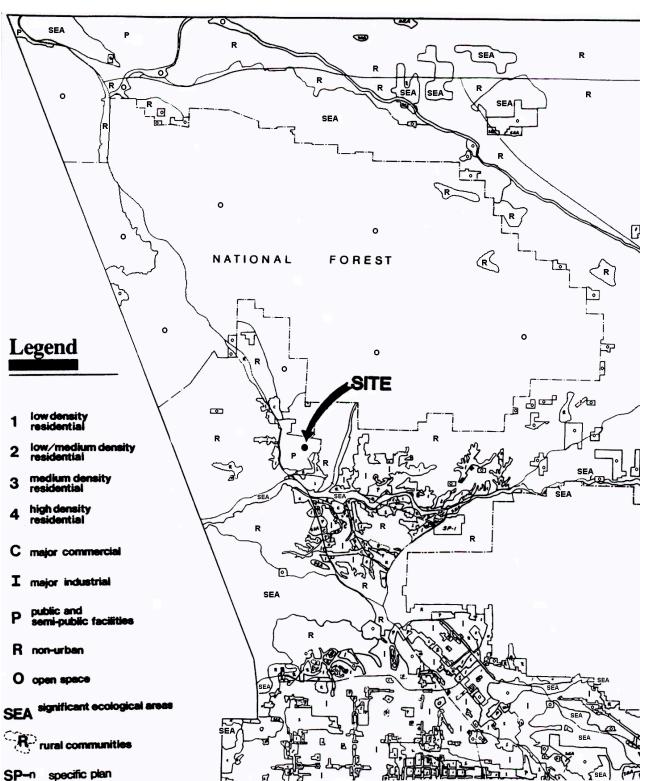


FIGURE 5: PETER J. PITCHESS LANDFILL AREA LAND USE MAP

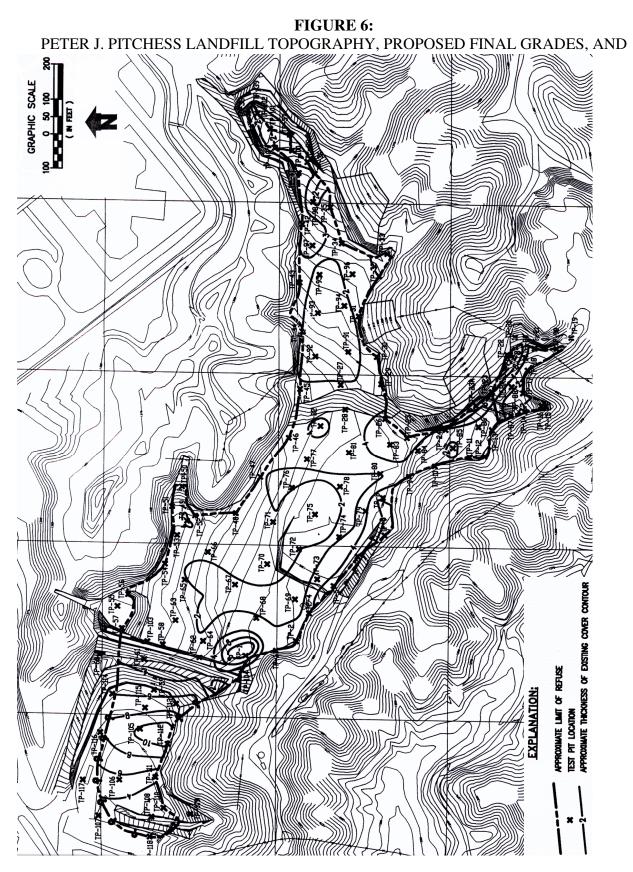
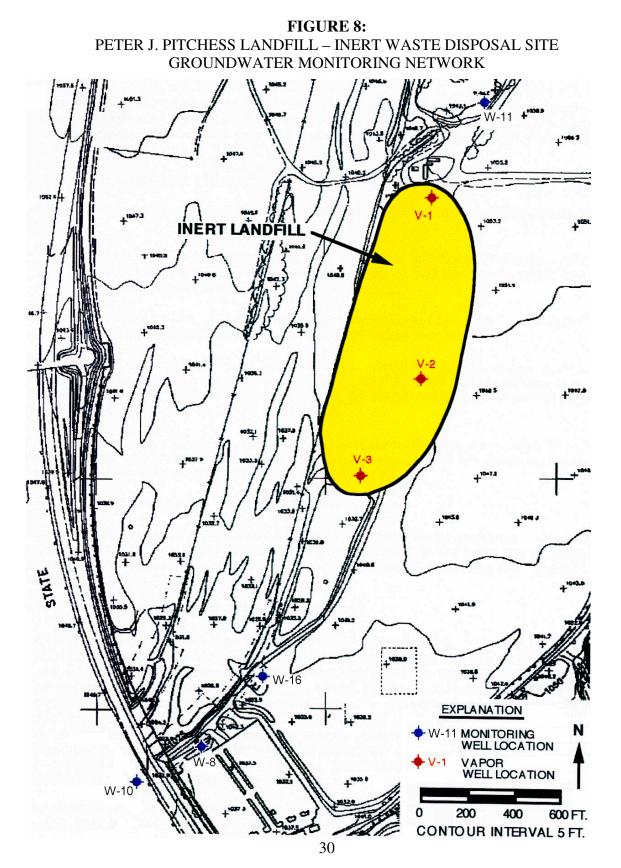
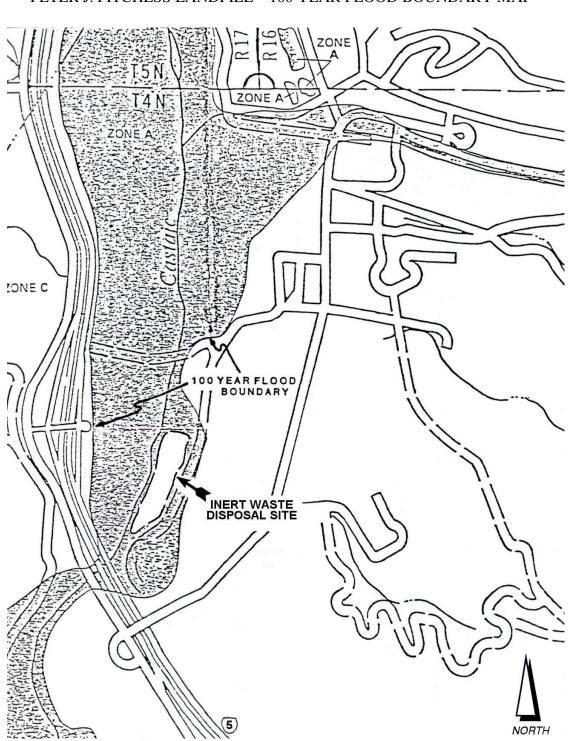


FIGURE 7: PETER J. PITCHESS LANDFILL - CLASS III LANDFILL GROUNDWATER MONITORING NETWORK 300





ATTACHMENT 1:

STANDARD PROVISIONS APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

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

2. GENERAL PROHIBITION

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

3. AVAILABILITY

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

4. CHANGE IN OWNERSHIP

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

5. CHANGE IN DISCHARGE

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

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

Standard Provisions Applicable to Waste Discharge Requirements

- (b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- (c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- (d) Increase in flow beyond that specified in the waste discharge requirements.
- (e) Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

6. <u>REVISION</u>

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

7. TERMINATION

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

8. VESTED RIGHTS

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

9. SEVERABILITY

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

Standard Provisions Applicable to Waste Discharge Requirements

10. OPERATION AND MAINTENANCE

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

11. HAZARDOUS RELEASES

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

12. PETROLEUM RELEASES

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

Standard Provisions Applicable to Waste Discharge Requirements

13. ENTRY AND INSPECTION

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

- Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

14. MONITORING PROGRAM AND DEVICES

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

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

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

Standard Provisions Applicable to Waste Discharge Requirements

15. TREATMENT FAILURE

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

16. DISCHARGES TO NAVIGABLE WATERS

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

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

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

- (a) Any bypass from any portion of the treatment facility.
- (b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
- (c) Any treatment plant upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

18. MAINTENANCE OF RECORDS

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

Standard Provisions Applicable to

Waste Discharge Requirements

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

Records of monitoring information shall include:

- (a) The date, exact place, and time of sampling or measurements;
- (b) The individual(s) who performed the sampling or measurements;
- (c) The date(s) analyses were performed;
- (d) The individual(s) who performed the analyses;
- (e) The analytical techniques or method used; and
- (f) The results of such analyses.
- 19. (a) All application reports or information to be submitted to the Executive Officer shall be signed and certified as follows:
 - For a corporation -- by a principal executive officer or at least the level of vice president.
 - (2) For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively.
 - (3) For a municipality, state, federal, or other public agency -- by either a principal executive officer or ranking elected official.
 - (b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:
 - (1) The authorization is made in writing by a person described in paragraph (a) of this provision.
 - (2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
 - (3) The written authorization is submitted to the Executive Officer.

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

Standard Provisions Applicable to Waste Discharge Requirements

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

20. OPERATOR CERTIFICATION

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

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

ADDITIONAL PROVISIONS APPLICABLE TO PUBLICLY OWNED TREATMENT WORKS' ADEQUATE CAPACITY

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

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

MONITORING AND REPORTING PROGRAM NO. CI-<u>6198</u> FOR CITY OF LOS ANGELES, (PETER J. PITCHESS LANDFILL)

(File No. 75-014)

A. GENERAL

- 1. Responsibilities of County of Los Angeles Sheriffs Department (County) are specified in Section 13225(a), 13267(b) and 13387(b) of the California Water Code, and the State Water Resources Control Board's Resolution No. 93-062. This self-monitoring program is issued pursuant to Specification No. A-19 of Regional Board Order No. 01-133. The principal purposes of a self-monitoring program by a waste discharger are:
 - a. To document compliance with discharge requirements and prohibitions established by the Regional Board;
 - b. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge;
 - c. To prepare water quality analyses; and
 - d. To prepare vadose zone (unsaturated zone) gas, if applicable, and liquid quality analyses.

B. DEFINITION OF TERMS

- 2. The Monitored Media are those water and/or gas-bearing media that are monitored pursuant to this Monitoring and Reporting Program (M&RP). The monitored media may include:
 - a. groundwater in the uppermost aquifer, in any other portion of the zone of saturation (California Code of Regulations Title 27 [27 CCR], Section 20164) in which it would be reasonable to anticipate that waste constituents migrating from the landfill(s) could be detected, and in any perched zones underlying the landfill(s),
 - 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(s), and

COUNTY OF LOS ANGELES SHERIFFS DEPARTMENT PETER J. PITCHESS LANDFILL MONITORING AND REPORTING PROGRAM NO. 6198

- d. soil-pore gas beneath and/or adjacent to the landfill(s).
- 3. The Constituents of Concern (COC) are those constituents which are likely to be in the waste in the landfill(s) or which are likely to be derived from waste constituents, in the event of a release.
- 4. The Monitoring Parameters consists of a short list of constituents and parameters used for the majority of monitoring activity.
- 5. The Volatile Organics Composite Monitoring Parameter for Water (VOC_{water}) and the Volatile Organics Composite Monitoring Parameter for Soil-pore Gas (VOC_{spg}) are composite monitoring parameters addressing all volatile organic constituents detectable in a sample of water or soil-pore gas, respectively.
- 6. 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.

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- 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.
- 7. Matrix Effect refers to any increase in the Method Detection Limit (MDL) or Practical Quantitation Limit (PQL) 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.
- 8. Facility-specific MDL, for a given analytical laboratory using a given analytical method to detect a given constituent (in spite of any matrix effect), means the lowest concentration at which the laboratory can regularly differentiate, with 99% reliability, between a sample which contains the constituent and one which does not.
- 9. Facility-specific PQL, for a given analytical laboratory using a given analytical method to determine the concentration of a given constituent (in spite of any matrix effect), means the lowest constituent concentration the laboratory can regularly quantify within specified limits of precision that are acceptable to the Regional Board's Executive Officer.
- 10. 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. Therefore, the reporting period for monitoring parameters is semiannual, and the reporting period for COCs is every five years. An annual report, which is a summary of all the monitoring during the previous year, shall also be submitted to the Regional Board. The submittal dates for each reporting period shall be as follows:
 - a. Semiannual Reports

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<u>Period</u> Spring/Summer Fall/Winter Sampling Period September March Reporting Date October 30 April 30

b. Annual Summary Report

Period January 1 - December 31 Reporting Date February 15

C. SAMPLING AND ANALYTICAL METHODS

- 11. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard U.S. Environmental Protection Agency (USEPA) methods, and in accordance with an approved sampling and analysis plan. Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. Specific methods of analysis must be identified. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board's 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. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the County is responsible for seeing that the laboratory analysis of all samples from monitoring points and background monitoring points meets the following restrictions:
 - a. The methods and analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% nonnumerical determinations (i.e. "trace" or "ND") in data from background monitoring points for that medium, the analytical methods having the lowest facility-specific MDL shall be selected from among those methods which would provide valid results in light of any matrix effects involved.
 - b. Trace results falling between the MDL and the facility-specific PQL, shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run and by an estimate of the constituent's concentration.
 - c. MDLs and PQLs shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being

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quoted from USEPA analytical method manuals. If the lab 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 MDL/PQL values, the results shall be flagged accordingly, along with an estimate of the detection limit and quantitation limit actually achieved.

- d. All Quality Assurance / Quality Control (QA/QC) data shall be reported, along with the sample results to which it applies, including the method, equipment, and analytical detection limits, the recovery rates, an explanation of any recovery rate that is less than 80%, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery.
- e. Upon receiving written approval from the Regional Board's Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-noctyl phthalate) during any given reporting period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Regional Board staff.
- f. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte. When unknown peaks are encountered, second column or second method confirmation procedures shall be performed to attempt to identify and more accurately quantify the unknown analyte.
- g. In cases where contaminants are detected in QA/QC samples (i.e. field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.
- h. The MDL shall always be calculated such that it represents a concentration associated with a 99% reliability of a non-zero result.

D. RECORDS TO BE MAINTAINED

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

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- a. Identity of sample and of the monitoring point or background monitoring point from which it was taken, along with the identity of the individual who obtained the sample;
- b. Date and time of sampling;
- c. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;
- d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
- e. Calculations of results; and
- f. Results of analyses, and the MDL and PQL for each analysis.

E. REPORTS TO BE FILED WITH THE BOARD

- 13. A Detection Monitoring Report and an Annual Summary Report shall be submitted pursuant the schedule in Item No. B-10 of this M&RP. Every five years, the County shall submit a report concerning the direct analysis of all COCs (COC Report). The reports shall be comprised of at least the following:
 - a. Letter of Transmittal:
 - A letter detailing the essential points of the monitoring program shall accompany each report. Such a 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. If the County 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 letter of transmittal. 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 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;
 - b. Each detection monitoring report and each COC report shall include a compliance evaluation summary. The summary shall contain at least:

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- i. For each monitored groundwater body, a description and graphical presentation of the velocity and direction of the groundwater flow under/around the landfill(s), based upon water level elevations taken during the collection of the water quality data submitted in the report;
- ii. Pre-Sampling Purge for Samples Obtained from Wells:

For each monitoring well 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, the well recovery time, and the method of disposing of the purge water);

iii. Sampling:

For each monitoring point and background 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).

- c. A map or aerial photograph showing the locations of observation stations, monitoring points, and background monitoring points;
- d. For each detection monitoring report and each COC report, include laboratory statements of results of all analyses demonstrating compliance with Item C (Sampling And Analytical Methods) of this M&RP;
- e. An evaluation of the effectiveness of the run-off/run-on control facilities;
- f. A summary and certification of completion of all standard observations (Item B.6 of the M&RP) for the landfill(s), for the perimeter of the landfill(s), and for the receiving waters.
- 14. Contingency Reporting
 - a. The County shall report by telephone to Regional Board staff, any seepage from the disposal area immediately after it is discovered. A written report shall be filed

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with the Regional Board within seven days of the verbal report, containing at least the following information:

- 1. A map showing the location(s) of seepage;
- 2. An estimate of the flow rate;
- 3. A description of the nature of the discharge (e.g., all pertinent observations and analyses); and
- 4. Corrective measures underway or proposed.
- b. Should the initial statistical comparison (Section G of this M&RP) or nonstatistical comparison indicate, for any COC or monitoring parameter, that a release is tentatively identified, the County shall immediately verbally notify Regional Board staff as to the monitoring point(s) and constituent(s) or parameter(s) involved, shall provide written notification by certified mail within seven days of such determination (27 CCR, Section 20420(j)(1)), and shall carry out a discrete retest in accordance with Item G-27 of M&RP. If the retest confirms a release, the County shall carry out the requirements of Item E-14d of the M&RP. In any case, the County shall inform the Regional Board of the outcome of the retest as soon as the results are available, and follow up with written results submitted by certified mail within seven days of completing the retest.
- c. If either the County or the Regional Board determines that there is significant physical evidence of a release (27 CCR, Section 20385(3)), the County shall immediately notify the Regional Board of this fact by certified mail (or acknowledge the Regional Board's determination of a potential release) and shall carry out the requirements of Item E-14d of this M&RP for all potentially-affected monitored media.
- d. If the County concludes that a release has been discovered:
 - i. If this conclusion is not based upon Direct Monitoring of the COCs, the County shall, within thirty days, sample for all COCs at all monitoring points and submit them for laboratory analysis. Within seven days of receiving the laboratory analytical results, the County shall notify the Regional Board, by certified mail, of the concentration of all COCs at each monitoring point. Because this scan is not to be tested against background, only a single datum is required for each COC at each monitoring point (27 CCR, Section 2040(k)(1));

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- The County shall, within 90 days of discovering a release, submit a revised Report of Waste Discharge (ROWD) proposing an Evaluation Monitoring Program (EMP) meeting the requirements of 27 CCR, Section 20420(k)(5) and 20425; and
- iii. The County shall, within 180 days of discovering a release, submit a preliminary engineering feasibility study meeting the requirements of CCR 27, Section 20420(k)(6).
- e. Any time the County concludes, or the Regional Board Executive Officer directs the County to conclude, that a liquid or gaseous-phase release from the landfill(s) has extended beyond the facility boundary, the County shall so notify all persons who either own or reside upon the land (affected persons) that directly overlies any part of the plume.
 - i. Initial notification to affected persons shall be accomplished within fourteen days of making this conclusion and shall include a description of the County's current knowledge of the nature and extent of the release; and
 - ii. Subsequent to initial notification, the County shall provide updates to all affected persons, including any newly affected persons, within fourteen days of concluding there has been any material change in the nature or extent of the release.
- 15. The County shall submit an annual summary report to the Regional Board covering the previous monitoring year. The reporting period ends February 15. This report shall contain:
 - a. A graphical presentation of analytical data (CCR 27, Section 20415(e)(14)): For each monitoring point and background monitoring point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given monitoring point and background monitoring point, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. On the basis of any aberrations noted in the plotted date, the Regional Board's Executive Officer may direct the County to carry out a preliminary investigation (CCR 27, Section 20080(d)(2)), the results of which will determine whether or not a release is indicated;
 - b. All monitoring analytical data obtained during the previous semiannual monitoring and reporting periods, presented in tabular form as well as on 3 ¹/₂-

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inch diskettes, either in MS-DOS/ASCII format or in another file format acceptable to the Regional Board's Executive Officer. Data sets too large to fit on a single diskette may be submitted on disk in a commonly available compressed format (e.g., PK-ZIP or NORTON BACKUP). The Regional Board regards the submittal of data in hard copy and on diskette as "...the form necessary for..." statistical analysis (CCR 27, Section 20420(h));

- c. A comprehensive discussion of the compliance record, and the result of any corrective actions taken, or planned, which may be needed to bring the County into full compliance with the WDRs;
- d. A written summary of the groundwater and soil-pore gas analyses, indicating any changes made since the previous annual report; and
- e. An evaluation of the effectiveness of the run on/run-off control facilities, pursuant to 27 CCR, Section 20340 (b, c, and d).

F. WATER AND SOIL-PORE GAS SAMPLING/ANALYSIS FOR DETECTION MONITORING

- 16. Monitoring parameter reports are due on a semiannual basis, COC reports due every five years.
- 17. Thirty-Day Sample Procurement Limitation:
 - For any given monitored medium, the samples taken from all monitoring points and background 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, Section 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 or background monitoring point (27 CCR, Section 20415(e)(13)); groundwater elevations taken prior to purging the well and sampling for monitoring parameters shall be used to fulfill groundwater flow rate/direction analyses required under Item F-22 of this M&RP. Statistical or non-statistical analysis shall be carried out as soon as the data is available, in accordance with Item G (Statistical and Non-Statistical Analyses of Sample Data During a Detection Monitoring Program) of this M&RP.
- Indirect Monitoring for Monitoring Parameters Conducted Semiannually: All monitoring points assigned to detection monitoring (Item F-20 of this M&RP, below) and all background monitoring points shall be sampled semiannually during March and September. Monitoring for monitoring parameters shall be carried out in accordance with

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Item F-16 and Item G (Statistical and Non-Statistical Analyses of Sample Data During a Detection Monitoring Program) of this M&RP.

19. Direct Monitoring of all COCs Every Five Years:

In the absence of a release being indicated pursuant to Item F-18 and Item G-27 of this M&RP. for a monitoring parameter or based upon physical evidence pursuant to ItemE-14c of this M&RP, or by a study required by the Regional Board's Executive Officer based upon anomalies noted during visual inspection of graphically-depicted analytical data (Item E-15a of this M&RP), the County shall sample all monitoring points and background monitoring points of water-bearing media, not including soil-pore gas, for all COCs every fifth year, beginning with the year of adoption of Regional Board Order No. 01-133, with successive direct monitoring efforts being carried out alternately in the Spring/Summer of one year (Report Period ends October 30) and the Fall/Winter of the fifth year thereafter (Reporting Period ends April 30). Direct monitoring for COCs shall be carried out in accordance with Item F-16 and Item G (Statistical and Non-Statistical Analyses of Sample Data During A Detection Monitoring Program) of this M&RP, and shall encompass only those COCs that do not also serve as a monitoring parameter.

20. Monitoring Points and Background Monitoring Points for Each Monitored Medium: The County shall sample the following monitoring points and background monitoring points in accordance with the sampling schedule given under Item F-18 and F-19 of this M&RP, taking enough samples to qualify for the most appropriate test under Item G (Statistical and Non-Statistical Analyses of Sample Data During a Detection Monitoring Program) of this M&RP.

Class III landfill:

- a. For groundwater in the uppermost aquifer: The monitoring points shall be point of compliance wells MW-1, MW-3, MW-4, and MW-5.
- b. The background monitoring point shall be MW-2.

Inert Waste Disposal Facility:

c. For groundwater in the uppermost aquifer: The monitoring points shall be point of compliance wells W-8, W-10, and W-16.

The background monitoring point shall be W-11.

21. Initial Background Determination:

For the purpose of establishing an initial pool of background data for each COC at each background monitoring point in each monitored medium 27 CCR, Section 20415(e)(6);

a. Whenever a new COC is added to the Water Quality Protection Standard (WQPS), including any added by the adoption of Regional Board Order No. 01-

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133, the County shall collect at least one sample semi-annually for at least one year from each background monitoring point in each monitored medium and analyze for the newly-added constituent(s); and

- b. Whenever a new background monitoring point is added, including any added by Regional Board Order No. 01-133, the County shall sample it at least semiannually for at least one year, analyzing for all COCs and monitoring parameters.
- 22. Semiannual Determination of Groundwater Flow Rate/Direction (27 CCR, Section 25415(e)(15): The County shall measure the water level in each well and determine groundwater flow rate and direction in each groundwater body semiannually. This information shall be included in the semiannual monitoring reports required under Item F-18.

G. STATISTICAL AND NON-STATISTICAL ANALYSES OF SAMPLE DATA DURING A DETECTION MONITORING PROGRAM

- 23. The County shall use the following methods to compare the downgradient concentration of each monitored constituent or parameter with its respective background concentration to determine if there has been a release from the landfill(s). For any given data set, proceed sequentially down the list of statistical analysis methods listed in Item G-24 of this M&RP, followed by the non-statistical method in Item G-25, using the first method for which the data qualifies. If that analysis tentatively indicates the detection of a release, implement the retest procedure under Item G-26.
- 24. Statistical Methods:

The County shall use one of the following statistical methods to analyze COCs monitoring parameters which exhibit concentrations exceeding their respective MDL in at least ten percent of the background samples taken during that reporting period. Except for pH, which requires a two-tailed analysis, the statistical analysis for all constituents and parameters shall be one-tailed (testing only for statistically significant increase relative to background):

a. One-Way Parametric Analysis of Variance (ANOVA) followed by multiple comparisons (27 CCR Section 20415(e)(8)(A)):
This method requires at least four independent samples from each monitoring point and background monitoring point during each sampling episode. It shall be used when the background data from the parameter or constituent, obtained during a given sampling period, has not more than 15% of the data below PQL. Prior to analysis, replace all 'trace' determinations with a value halfway between the PQL and the MDL values reported for that sample run, and replace all non-detect determinations with a value equal to half the MDL value reported for that

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sample run. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the data from each downgradient monitoring point shall be tested at a 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any monitoring point, the County shall conclude that a release is tentatively indicated for that parameter or constituent;

b. One-Way Non-Parametric ANOVA (Kruskal-Wallis Test), followed by multiple comparisons:

This method requires at least nine independent samples from each monitoring point and background monitoring point; therefore, the County shall anticipate the need for taking more samples per monitoring point, based upon past monitoring results. This method shall be used when the pooled background data for the parameter or constituent, obtained within a given sampling period, has not more than 50% of the data below the PQL. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the data from each downgradient monitoring point shall be tested at 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any monitoring point, the County shall conclude that a release is tentatively indicated for that parameter or constituent; or

c. Method of Proportions:

This method shall be used if the combined data set, the data from a given monitoring point in combination with the data from the background monitoring points, has between 50% and 90% of the data below the MDL for the constituent or parameter in question. This method (1) requires at least nine downgradient data points per monitoring point per reporting period, (2) requires at least thirty data points in the combined data set, and (3) requires that N* P > 5 (where N is the number of data points in the combined data set and P is the proportion of the combined set that exceeds the MDL); therefore, the County shall anticipate the number of samples required, based upon past monitoring results. The test shall be carried out at the 99% confidence level. If the analysis results in rejection of the Null Hypothesis (i.e., that there is no release), the County shall conclude that a release is tentatively indicated for that constituent or parameter; or

25. Non-Statistical Method:

The County shall use the following non-statistical method for the VOC_{water} and VOC_{spg} composite monitoring parameters and for all COC which are not amenable to the statistical tests under Item G-24 of this M&RP; each of these groupings of constituents utilizes a separate variant of the test, as listed below. Regardless of the variant used, the method involves a two-step process:

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- a) from all constituents to which the variant applies, compile a list of those constituents which exceed their respective MDL in the downgradient sample, yet do so in less than ten percent of the applicable background samples; and
- b) evaluate whether the listed constituents meet either of the test variant's two possible triggering conditions.
- 26. Background shall be represented by the data from all samples taken from the appropriate background monitoring points during that reporting period (at least one sample from each background monitoring point). The method shall be implemented as follows:
 - a. For the Volatile Organics Composite Monitoring Parameter for Water Samples (VOC_{water}):
 For any given monitoring point, the VOC_{water} monitoring parameter is a composite parameter addressing all VOCs detectable using the appropriate USEPA method including at least all 47 VOCs listed in Appendix I to 40 CFR 258, and all unidentified peaks. Compile a list of each VOC which exceeds its MDL in the monitoring point sample (an unidentified peak is compared to its presumed (MDL), and also exceeds its MDL in less than ten percent of the samples taken during that reporting period from that medium's background monitoring points.

The County shall conclude that a release is tentatively indicated for the VOC_{water} composite monitoring parameter if the list either contains two or more constituents, or contains one constituent that exceeds its PQL;

b. For the Volatile Organics Composite Monitoring Parameter for Soil-Pore Gas Samples (VOC_{spg}):

The VOC_{spg} monitoring parameter is a composite parameter for soil-pore gas addressing at least all 47 VOCs listed in Appendix I to 40 CFR 258, based upon either GC or GC/MS analysis of at least ten liter samples of soil-pore gas (e.g., collected in a vacuum canister). It involves the same scope of VOCs as does the VOC_{spg} monitoring parameter. Compile a list of each VOC which exceeds its MDL in the monitoring point sample (as unidentified peak is compared to its presumed MDL), and also exceeds its MDL in less than ten percent of the samples taken during that reporting period from the (soil-pore-gas) background monitoring points.

The County shall conclude that a release is tentatively indicated for the VOC_{spg} composite monitoring parameter if the list either contains two or more constituents, or contains one constituent that exceeds its PQL; or

c. For COCs:

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Compile a list of constituents that exceed their respective MDL at the monitoring point yet do so in less than ten percent of the background samples taken during that reporting period. The County shall conclude that a release is tentatively indicated if the list either (1) contains two or more constituents, or (2) contains one constituent which exceeds its PQL.

- 27. Discrete Retest (27 CCR, Section 25415 (e)(8)(E)):
 - In the event that the County concludes that a release has been tentatively indicated (under Item G-24 or Item G-25 of this M&RP), the County shall, within 30 days of this indication, collect two new suites of samples for the indicated COCs or monitoring parameters at each indicating monitoring point, collecting at least as many samples per suite as were used for the initial test. Resampling of the background monitoring points is optional. As soon as the data is available, the County shall rerun the statistical method (or non-statistical comparison) separately upon each suite of retest data. For any indicated monitoring parameter or COC at an affected monitoring point, if the test results of either (or both) of the retest data suites confirms the original indication, the County shall conclude that a release has been discovered. All retests shall be carried out only for the monitoring parameter which triggered the indication there, as follows:
 - a. If an ANOVA method was used, the retest shall involve only a repeat of the multiple comparison procedure, carried out separately on each of the two new suites of samples taken from the indicating monitoring point;
 - b. If the Method of Proportions statistical test was used, the retest shall consist of a full repeat of the statistical test for the indicated constituent or parameter, using the new sample suites from the indicating monitoring point;
 - c. If the non-statistical method was used:
 - i. Because the VOC composite monitoring parameters (VOC_{water} or VOC_{spg}) each address, as a single parameter, an entire family of constituents which are likely to be present in any landfill release, the scope of the laboratory analysis for each retest sample shall include all VOCs detectable in that retest sample. Therefore, a confirming retest for either parameter shall have validated the original indication even if the suite of constituents in the confirming retest sample(s) differs from that in the sample which initiated the retest;
 - ii. Because all COCs that are jointly addressed in the non-statistical testing under Item G-25c of this M&RP, remain as individual COCs, the scope of the laboratory analysis for the non-statistical retest samples shall be

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narrowed to involve only those constituents detected in the sample which initiated the retest.

H. RESPONSES TO VOC DETECTION IN BACKGROUND

- 28. Except as indicated in Item H-29, if any time the laboratory analysis of a sample from a background monitoring point, sampled for VOCs under Item G-26 of this M&RP, shows either two or more VOCs above their respective MDL, or one VOC above its respective PQL, then the County shall immediately notify the Regional Board by phone that possible background contamination has occurred, shall follow up with written notification by certified mail within seven days, and shall obtain two new independent VOC samples from that background monitoring point and send them for laboratory analysis of all detectable VOCs within thirty days. If either or both the new samples validates the presence of VOC(s) at that background monitoring point, using the above procedure, the County shall:
 - a. Immediately notify the Regional Board regarding the VOC(s) verified to be present at that background monitoring point, and follow up with written notification submitted by certified mail within seven days of validation; and
 - b. Within 180 days of validation, submit a report, acceptable to the Regional Board's Executive Officer, which examines the possibility that the detected VOC(s) originated from the landfill(s) and proposing appropriate changes to the monitoring program.
- 29. If the Regional Board's Executive Officer determines, after reviewing the report submitted under Item H-28b, that the detected VOC(s) most likely originated from the landfill(s), the County shall assume that a release has been detected and shall immediately begin carrying out the requirements of Item E-14d of this M&RP.

I. SUMMARY OF SELF-MONITORING AND REPORTING PROGRAMS

30. Groundwater Monitoring

The groundwater monitoring wells shall be sampled semiannually. The samples shall be analyzed for the following:

Groundwater Monitoring Parameters	<u>Units</u>
Chemical Oxygen Demand	mg/l
Total Organic Halides	mg/l

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Total Organic Carbon	mg/l
Total Dissolved Solids	mg/l
Chloride	mg/l
Sulfate	mg/l
Boron	mg/l
Hydroxide Alkalinity (CaCO ₃)	mg/l
Total Hardness (as CaCO ₃)	mg/l
Volatile Organics	mg/l
Electrical Conductivity	µhos/cm
рН	pH units
Groundwater Elevation	feet above mean sea level

Once each year, during the Winter/Spring monitoring period, all wells shall be sampled and these samples analyzed for:

Groundwater Monitoring Parameters

Volatiles* Semi-volatiles* Pesticides* PCB's* Metals** **Biological Oxygen Demand** Bicarbonate Carbonate Foaming Agents Herbicides Nitrate (as N) Nitrite Oil and Grease Sulfate Sulfides Total cyanide Total phenols Turbidity

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

** Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Hexavalent chromium, Lead, Magnesium, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, and Zinc.

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The collection, preservation and holding times of all samples shall be in accordance with USEPA approved procedures. All analyses shall be conducted by a laboratory certified by the California Department of Health Services (DHS) to perform the required analyses.

31. Gas Monitoring

The County shall monitor the soil-gas zone and perimeter gas monitoring systems semiannually and report the findings to the Regional Board semiannually.

- 32. Reporting
 - a. The County shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
 - b. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurement(s);
 - ii. The individual(s) who performed the sampling or measurement(s)
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or method used; and
 - vi. The results of such analyses.
 - c. Each report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations."

- d. A duly authorized representative of the County may sign the documents if:
 - i. The authorization is made in writing by the person described above;
 - ii. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and

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- iii. The written authorization is submitted to the Regional Board's Executive Officer.
- e. Report immediately any failure in the waste disposal system to the Regional Board's Executive Officer by telephone with follow-up letter.

f. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.

- g. Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule.
 - i. Semiannual Reports:

<u>Period</u> Spring/Summer Fall/Winter Sampling Period September March Reporting Date October 30 April 30

ii. Annual Summary Report:

<u>Period</u> January 1 - December 31 Reporting Date February 15

- h. Five-year COC monitoring reports shall be submitted to the Regional Board by October 30 and April 30 (alternating Spring/Summer and Fall/Winter COC report) of the sixth year.
- i. Submit monitoring reports to:

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

Ordered by

DENNIS A. DICKERSON Executive Officer September 19, 2001

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