

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**BOARD ORDER NO. R6V-2007-21**  
**WDID NO. 6B360304020**

REVISED WASTE DISCHARGE REQUIREMENTS

FOR

**SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT DIVISION**  
**PHELAN CLASS III LANDFILL**

San Bernardino County

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The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Discharger

For the purpose of this Water Board Order (Order), the County of San Bernardino is referred to as the "Discharger."

2. Facility

The Phelan Class III Landfill, a municipal solid waste landfill, received an annual average of 126 tons per day (tpd) of municipal solid waste from 1961, until it stopped receiving waste on December 31, 1997. For the purposes of this Order, the Phelan Class III Landfill is referred to as the "Facility."

3. Order History

Board Order No. 6-72-87 was adopted on October 26, 1972, and revised the WDRs. Board Order No. 6-81-47 was adopted on June 18, 1981, and revised the WDRs. Board Order No. 6-87-12 was adopted on January 9, 1987, and updated the WDRs. Board Order No. 6-87-12A2 was adopted on July 17, 1987, and amended the WDRs. Board Order No. 6-93-10044 was adopted on September 9, 1993, and amended the WDRs to incorporate the requirements of Title 40, Code of Federal Regulations (40CFR), Parts 257 and 258 (Subtitle D Regulations) as implemented in the State of California under State Water Resources Control Board (SWRCB) Resolution No. 93-62. The Water Board adopted Waste Discharge Requirements (WDRs) for the Facility under Board Order No. 6-98-2 on January 8, 1998.

4. Reason for Action

The Water Board is issuing Closure WDRs to require the Discharger to achieve compliance with the requirements of California Code of Regulations, title 27, sections 20385, 20415, 20420, 20950 (general closure and post-closure maintenance standards), and 21090 (closure and post-closure maintenance

requirements for solid waste landfills). The site stopped receiving waste on December 31, 1997. Final closure construction was conducted in the winter and spring 2007 in accordance with a closure plan, dated September 16, 2004, that Board staff accepted as technically complete on December 8, 2006.

This Order must remain in effect until it is determined there are no water quality problems, or threat of water quality problems.

5. Landfill Location

The Facility is located at 10130 Buckwheat Road, approximately two miles northwest of the community of Phelan, within San Bernardino Base and Meridian, San Bernardino County, California, Township 4 North, Range 7 West, Section 16, (SBB&M, T4N, R7W, Sec 16), as shown on Attachment "A," which is made part of this Order. The Facility lies within the El Mirage Valley Basin subunit of the Mojave Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 6-43).

6. Description of Landfill

The Facility is an unlined Landfill. The parcel size of the property is approximately 80 acres, and the landfill footprint is approximately 35 acres. Approximately one million cubic yards of waste and daily and intermediate cover has been placed at the Facility since it opened in 1961. The Facility is located on property owned by San Bernardino County since 1955.

7. Authorized Disposal Sites

The footprint of waste shown in Attachment "B" is the only authorized disposal site.

8. Waste Classification

The Landfill received waste derived from the community of Phelan and the surrounding desert communities. The waste is defined in California Code of Regulations, title 27 sections 20220 and 20230 as inert and non-hazardous solid waste, respectively. The landfill has also accepted nonhazardous solid waste as defined in Subtitle D Regulations. Historical records also indicate that the landfill received septic waste. The septic waste receiving area was closed prior to 1990.

9. Waste Management Unit Classification

Pursuant to California Code of Regulations, title 27 section 20260, the Landfill is classified as a Class III waste management unit.

10. Water Quality Protection Standard

The Facility's Water Quality Protection Standard (WQPS) consists of constituents of concern (including monitoring parameters) and monitoring points. The standard applies over the active life of the Landfill, closure and post-closure maintenance period, and the compliance period.

The Discharger drilled a boring at the Facility to a depth of 1,000 feet below ground surface. The boring did not encounter groundwater. The Discharger installed a well (PSL-7) screened from 185 to 465 feet below ground level in the dry, 1,000 foot borehole. Well PSL-7 has remained dry since its construction.

This Order does not require groundwater monitoring at the Facility, because of the excessive depth to groundwater at the Facility. Instead of groundwater monitoring, this Order requires unsaturated zone monitoring beneath the facility. Unsaturated zone monitoring beneath the facility is intended to detect contaminants that may be migrating downward from the Landfill to the underlying groundwater. The constituents of concern, monitoring parameters and monitoring points, for the unsaturated zone are described in Monitoring and Reporting Program R6V-2007-21, which is attached to and made part of this Order.

11. Statistical Methods

Statistical analysis is not required for the unsaturated zone monitoring data. This Order does not require statistical data analysis.

12. Detection Monitoring

Pursuant to California Code of Regulations, title 27 the Discharger has proposed a detection monitoring program. The current detection monitoring program has been designed to monitor the unsaturated zone for evidence of contaminant migration that may threaten groundwater quality. The groundwater and vadose zone monitoring system at the Landfill includes one dry well (PSL-7), five lysimeters (PSL-1, PSL-2, PSL-3, PSL-4, and PSL-6) and four vadose zone soil pore gas probes (PSG-1, PSG-2, PSG-3, and PSG-4).

13. Evaluation Monitoring

An Evaluation Monitoring Program (EMP) is required, pursuant to California Code of Regulations, title 27 section 20425, to evaluate a release if detection monitoring and/or verification procedures indicate evidence of a release.

14. Corrective Action

A Corrective Action Program (CAP) to remediate detected releases from the Landfill may be required pursuant to California Code of Regulations, title 27 section 20430 should results of an EMP warrant a CAP.

15. Site Geology

The Facility is located on the Quaternary Wrightwood alluvial fan in the southwestern Mojave Desert, just north of the San Gabriel Mountains. The alluvial fan deposits consist of Holocene-age fanglomerates composed of unconsolidated sands with some cobbles and boulders and some silt and clay. The Holocene alluvial fan sediments are estimated to be as deep as 100 feet and overlie older Quaternary alluvial deposits. The Quaternary alluvial deposits overlie the Pliocene Crowder Formation which consist of nonmarine arkosic sandstone and conglomerate, with minor siltstone, mudstone and tuff. The sediments found beneath the site are generally unconsolidated. No evidence of fracturing or Holocene faulting was found during drilling in the vicinity of the site. The total depth of the alluvium is estimated to be 1,000 feet. The subsurface alluvial plain gently dips to the north, following the surface topography.

16. Site Hydrogeology

Depth to groundwater beneath the Facility is estimated to be in excess of 1,000 feet below the ground surface. Groundwater flow direction beneath the Facility is unknown.

17. Site Surface Hydrology and Storm Water Runoff

There is no perennial surface water flow at the site. All storm water from the Facility is regulated under the State Amended General Industrial Activities Storm Water Permit.

18. Site Topography

Site topography is shown on Attachment "B", which is made a part of this Order.

19. Climatology

The Facility has a mean annual rainfall of approximately 6.8 inches. The potential mean evaporation rate in the area of the Facility is approximately 85 inches annually.

20. Land Uses

The Facility is zoned general commercial to the southwest and rural living to the west. Up to 1,000 feet from the Facility to the north, south, and east, the land is zoned for commercial and industrial. There are homes west of the Facility within a 1,000 foot radius of the Facility. The proposed post-closure end use of the Facility will be non-irrigated open space.

21. Closure and Post-Closure Maintenance

The Discharger has submitted a Final Closure and Post-Closure Monitoring Plan (CPCMP). The Final CPCMP generally proposes in place closure of the waste and an extended period of site monitoring. The Final CPCMP proposes an alternative engineered cover system in place of the prescriptive final cover design.

The Discharger has proposed to close the Phelan Landfill by constructing an alternative engineered designed final cover that has been predicted to perform as well as the prescriptive standard as required in California Code of Regulations, title 27 section 21090 (a). This alternative engineered design is proposed to include a minimum of three feet of re-compacted existing interim cover soil and onsite borrow site soils that provide the performance characteristics as described in the Final Closure Design Report.

22. Financial Assurance

The Discharger is required to obtain and maintain Financial Assurance Instruments (Instruments) to conduct closure activities, postclosure maintenance activities, and corrective action activities as required under Articles 1, 2, and 4, Subchapter 3, Chapter 3 of the California Code of Regulations, title 27, (sections 22207, 22212, 22220, et seq.).

The Discharger has developed a fund to demonstrate the availability of financial resources to conduct closure activities and postclosure maintenance activities. The fund does not include financial resources to conduct corrective action activities. The fund has been developed as a single entity for all landfills owned and/or operated by the County of San Bernardino. The fund meets the requirements of California Code of Regulations, title 27, sections 22247 and 22245 for financial assurance.

This Order requires the Discharger: (a) to report the amount of money available in the fund as part of an annual report; (b) to demonstrate in an annual report that the amount of financial assurance is adequate, or increase the amount of financial assurance; and (c) to obtain and maintain Instruments to conduct corrective action activities as required under California Code of Regulations, title 27, Article 1, Subchapter 3, Chapter 3 (section 20380 et seq.).

23. Receiving Waters

The receiving waters are the groundwaters of the El Mirage Valley Basin subunit of the Mojave Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 6-43).

24. Lahontan Basin Plan

The Water Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which became effective on March 31, 1995. This Order implements the Basin Plan.

25. Beneficial Groundwater Uses

The present and probable beneficial uses of the ground waters of the El Mirage Valley Basin as set forth and defined in the Basin Plan are:

- a. Municipal and Domestic Supply;
- b. Agricultural Supply;
- c. Industrial Service Supply; and
- d. Freshwater Replenishment.

26. Consideration of Water Code Section 13241 Factors

Section 13263 of the California Water Code (Water Code) requires that the Water Board, when prescribing waste discharge requirements as to the nature of any discharge with relation to the conditions existing in the receiving waters into which the discharge is made, take into consideration five specific factors in Section 13241 of the Water Code in establishing water quality objectives. The Water Board has considered these factors as follows.

a. Past, Present, and Probable Future Beneficial Uses of Water

The hydrologic unit of the receiving waters is the El Mirage Valley Basin. The present and probable beneficial uses of the groundwaters of the El Mirage Valley Basin as set forth and defined in the Basin Plan are:

- i. Municipal and Domestic Supply (MUN);
- ii. Agricultural Supply (AGR);
- iii. Industrial Service Supply (IND); and
- iv. Freshwater Replenishment (FRSH).

The receiving water limits established in this Order maintain the water quality objectives for Municipal and Domestic Supply and Agricultural Supply for the most sensitive beneficial uses.

b. Environmental Characteristics of the Hydrographic Unit under Consideration, Including the Quality of Water Available Thereto

The hydrologic unit for the receiving waters is the El Mirage Valley Basin subunit of the Mojave Hydrologic Unit. Geological characteristics of the Basin are described in Finding No. 15. The hydrogeologic and hydrologic characteristics of the Basin are described in Findings No. 16 and 17. The

depth to groundwater beneath the Facility is in excess of 1,000 feet below the ground surface and the groundwater gradient beneath the Facility is unknown. There is no perennial surface water flow at the site.

In general, the quality of groundwater in the basin is sufficient to support the beneficial uses MUN and AGR. These WDRS do not allow the degradation of water in the basin that would affect the use of a municipal and domestic supply. This Order therefore preserves the existing quality of groundwater and its current and future beneficial uses.

c. Water Quality Conditions That Could Reasonably be Achieved Through the Coordinated Control of All Factors, Which Affect Water Quality in the Area

The current and future beneficial uses and existing water quality in the area will be maintained.

d. Economic Considerations

The Facility regulated under this Order is a solid waste landfill undergoing general closure and post-closure maintenance. This Order must remain in effect until it is determined there are no water quality problems, or there is no threat to water quality from the landfill. The costs for closure and post-closure maintenance requirements for solid waste landfills are reasonable.

e. The Need for Developing Housing within the Region

The discharge will neither directly nor indirectly affect the development of housing in the region.

f. The Need to Develop and Use Recycled Water

The Project does not generate an effluent suitable for reuse described in California Code of Regulations, title 22.

27. California Environmental Quality Act

The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) in accordance with Section 15301 of the CEQA Guidelines.

28. Notification of Interested Parties

The Water Board has notified the Discharger and all known interested agencies and persons of its intent to adopt Closure WDRs for the project.

29. Consideration of Interested Parties

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

30. Storm Water Discharges

The Discharger has filed for coverage under the General Storm Water WDRs (Board Order No. 97-03-DWQ). The WDID No. assigned to that permit is 6B361005239.

**IT IS HEREBY ORDERED** that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Receiving Water Limitations

Discharges from the Landfill must not cause the presence of the following substances or conditions in groundwaters of the Mojave Hydrologic Unit:

1. Any perceptible color, odor, taste, or foaming.
2. Any presence of toxic substances in concentrations that individually, collectively, or cumulatively cause detrimental physiological response in humans, plants, animals, or aquatic life.
3. The presence of constituents of concern in concentrations that exceed background levels.

II. REQUIREMENTS AND PROHIBITIONS

A. General

1. The discharge must not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
2. The discharge must not cause a nuisance as defined in Section 13050 of the California Water Code.
3. The discharge of solid wastes, leachate, or any other deleterious material to the groundwaters of the El Mirage Valley Basin subunit of the Mojave Hydrologic Unit is prohibited.
4. The closed disposal site must be protected from inundation, washout, or erosion of wastes and erosion of covering materials resulting from a storm or a flood having recurrence interval of once in 100 years.



5. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, must not contact or percolate through solid wastes discharged at the site.
6. The exterior surfaces of the closed disposal site must be graded to promote lateral runoff of precipitation and to prevent ponding.
7. Water used for dust control operations must be limited to a minimal amount. A "minimal amount" is defined as that amount which will not result in runoff.
8. All water used for dust control must not contain detected concentrations of volatile organic compounds (VOCs).
9. The Discharger must remove and relocate any waste, which is or has been discharged at the closed disposal site in violation of these requirements.
10. At any given time, the concentration limit for each constituent of concern must be equal to the background value of that constituent.
11. The concentration limits for each constituent of concern must not be exceeded.

B. Detection Monitoring Program

The Discharger must maintain a DMP as required in California Code of Regulations, title 27 section 20420.

C. Evaluation Monitoring Program

The Discharger must maintain the EMP as long as there is evidence of a release from the Landfill as required in California Code of Regulations, title 27, section 20425.

D. Corrective Action Program

The Discharger must institute a CAP, when required pursuant to California Code of Regulations, title 27 section 20430, should the results of the EMP warrant a CAP.

III. DATA ANALYSIS

A. Statistical Analysis

Statistical analysis is not required for the unsaturated zone monitoring data. This Order does not require statistical data analysis.

B. Nonstatistical Analysis

The Discharger must determine whether there is significant physical evidence of a release from the Landfill. Significant physical evidence may include unexplained volumetric changes in the Landfill, unexplained stress in biological communities, unexplained changes in soil characteristics, unexplained changes in unsaturated zone monitoring data, visible signs of leachate migration, and unexplained water table mounding beneath or adjacent to the Landfill, or any other change in the environment that could reasonably be expected to be the result of a release from the Landfill.

C. Verification Procedures

1. The Discharger must immediately initiate verification procedures as specified below whenever there is a determination by the Discharger or Executive Officer that there is evidence of a release. If the Discharger declines the opportunity to conduct verification procedures, the Discharger must submit a technical report as described below under the heading Technical Report Without Verification Procedures.
2. The verification procedure must only be performed for the constituent(s) that has shown evidence of a release, and must be performed for those monitoring points at which a release is indicated.
3. The Discharger must either conduct a composite retest using data from the initial sampling event with all data obtained from the resampling event or must conduct a discrete retest in which only data obtained from the resampling event must be analyzed in order to verify evidence of a release.
4. The Discharger must report to the Water Board by certified mail the results of the verification procedure, as well as all concentration data collected for use in the retest within seven days of the last laboratory analysis.
5. The Discharger must determine, within 45 days after completion of sampling event, whether there is physical evidence of a release. If there is physical evidence of a release, the Discharger must immediately notify the Water Board by certified mail. The Executive Officer may make an independent finding that there is physical evidence of a release.
6. If the Discharger or Executive Officer verifies evidence of a release, the Discharger is required to submit, within 90 days of a determination that there is or was a release, a technical report pursuant to Section 13267(b) of the California Water Code. The report must propose an

EMP **OR** make a demonstration to the Water Board that there is a source other than the Landfill that caused evidence of a release.

D. Technical Report Without Verification Procedures

If the Discharger chooses not to initiate verification procedures, a technical report must be submitted pursuant to Section 13267(b) of the California Water Code. The report must propose an EMP, **OR**, attempt to demonstrate that the release did not originate from the Landfill.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Order No. 6-98-2 is hereby rescinded.

B. Closure Plan Acceptance

The implemented Final CPCMP, revised September 16, 2004, which includes an alternative engineered final cover, is accepted.

C. Standard Provisions

The Discharger must comply with the "Standard Provisions for WDRs," dated September 1, 1994, in Attachment "C," which is made part of this Order.

D. Monitoring and Reporting

1. Pursuant to the California Water Code Section 13267(b), the Discharger must comply with the Monitoring and Reporting Program R6V-2007-21 as specified by the Executive Officer.
2. The Discharger must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

E. Completion Monitoring

The Final CPCMP must be updated if there is a substantial change in operations. A report must be submitted annually indicating conformance with existing operations.

V. TIME SCHEDULE

A. Corrective Action Plan and Financial Assurance Documents

1. Corrective Action Plan

**By October 31, 2007**, the Discharger must submit a plan for addressing a known or reasonably foreseeable release (KFRF Plan) from the Facility in accordance with the requirements in California Code of Regulation, title 27. The KFRF Plan must include a cost estimate to implement the plan. The KFRF Plan and cost estimate to implement the plan must be prepared by, or under the supervision of a California Certified Engineering Geologist or a California Registered Civil Engineer.


2. Financial Assurance Documents.

**By December 31, 2007** the Discharger must submit Instruments of Financial Assurance acceptable to the Water Board and adequate to cover the costs of a known or reasonably foreseeable release from the Facility.

B. Closure Certification Report

Pursuant to California Code of Regulations, title 27, section 21880, the Discharger must submit to the Water Board a certification, under penalty of perjury, that the solid waste landfill has been closed in accordance with the final CPCMP and the Construction Quality Assurance (CQA) plan. The certification, which must include any other documentation as necessary to support the certification, must be incorporated into the CPCMP. This report must be submitted to the Water Board no later than 180 days after completion of construction activities. The certification must be completed by a California registered civil engineer or a California certified engineering geologist and include a report with supporting documentation.

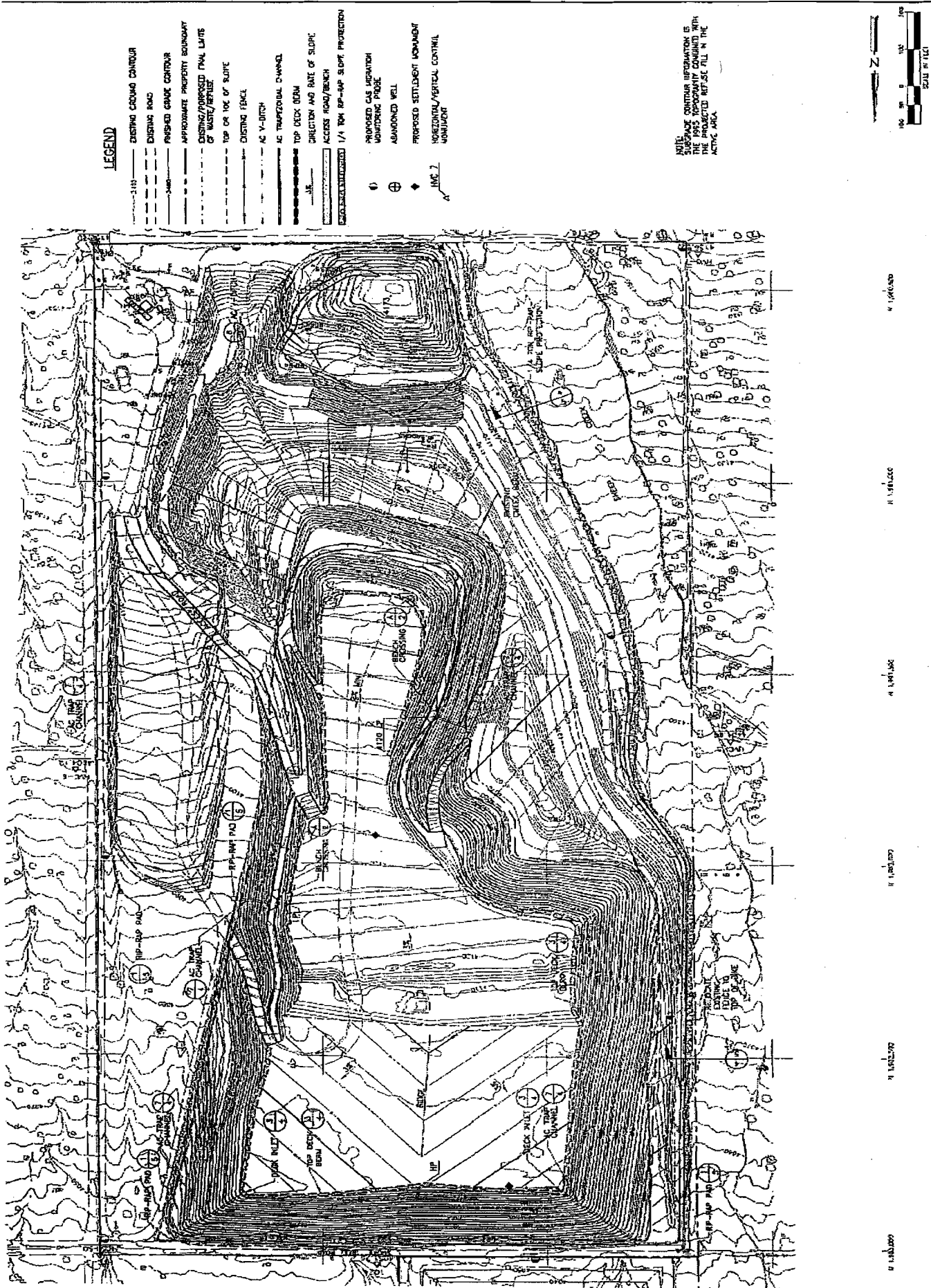
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by California Regional Water Quality Control Board, Lahontan Region, on June 13, 2007.



HAROLD J. SINGER  
EXECUTIVE OFFICER

- Attachments:
- A. Landfill Location Map
  - B. Landfill Footprint of Waste
  - C. Standard Provisions for Waste Discharge Requirements

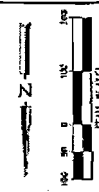




**LEGEND**

- EXISTING GROUND CONTOUR
- EXISTING ROAD
- PROPOSED GROUND CONTOUR
- APPROXIMATE PROPERTY BOUNDARY
- EXISTING/PROPOSED FINAL LAYERS OF WASTE/REFUSE
- TOP OF TOP OF SLURF
- EXISTING FENCE
- AC V-DITCH
- AC TRAPEZOIDAL CHANNEL
- TOP BECK DRAIN
- DIRECTION AND RATE OF SLOPE
- ACCESS ROAD/BENCH
- 1/4 IN. RP-40P SLOPE PROTECTION
- PROPOSED GAS IMPIVATION MONITORING PEG
- ABANDONED WELL
- PROPOSED SETTLEMENT MONUMENT
- HORIZONTAL/VERTICAL CONTROL MONUMENT

NOTE: SURFACE CONTOUR INFORMATION IS THE 1985 PHOTOGRAPHIC CORRELATION WITH THE PROPOSED REFUSE FILL IN THE ACTIVE AREA.



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|  | <p><b>NORCAL/ San Bernardino, Inc.</b><br/>         2200 WEST 10TH AVE. SUITE 200<br/>         DENVER, CO 80202</p> | <p><b>DAS</b><br/>         JOHN 660-7372<br/> <b>DAVE L. SPRUNT &amp; ASSOCIATES</b><br/>         CIVIL ENGINEERS<br/>         1000 S. GARDEN CITY BLVD.<br/>         DENVER, CO 80210</p> | <p>APPROVED UNDER THE SD ENGINEER ST.<br/> <br/>         DAVID L. SPRUNT<br/>         CIVIL ENGINEER<br/>         No. 1155<br/>         State of Colorado<br/>         Exp. 12-31-87</p> | <p>DATE: 11-15-87<br/>         DRAWN BY: [blank]<br/>         CHECKED BY: [blank]<br/>         DESIGNED BY: [blank]<br/>         APPROVED BY: [blank]</p> |
| <p>COUNTY OF SAN BERNARDINO<br/>         WASTE SYSTEM DIVISION</p> |   | <p>PHILAN LANDFILL<br/>         FINAL CLOSURE PLAN<br/>         FINAL GRADING &amp; DRAINAGE PLAN</p>  |  | <p>DATE: 11-15-87<br/>         PROJECT NO. 3</p>  |

**LANDFILL FOOTPRINT OF WASTE  
ATTACHMENT B**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**STANDARD PROVISIONS**  
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

- e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.
- f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.



8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

- a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters.  
"Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.
- b. "Groundwaters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**MONITORING AND REPORTING PROGRAM NO. R6V-2007-21  
WDID NO. 6B360304020**

FOR

**SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT DIVISION  
PHELAN CLASS III LANDFILL**

San Bernardino County

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I. WATER QUALITY PROTECTION STANDARD

Because depth to groundwater at the Facility is estimated to be greater than 1,000 feet below the ground surface, the Discharger is conducting unsaturated zone monitoring for the purposes of detecting a threatened impact to groundwater quality. The unsaturated zone monitoring system consists of soil gas monitoring, lysimeters, and a dry well. The monitoring points, constituents of concern, and monitoring parameters are described as follows:

A. Monitoring Points

The groundwater and unsaturated zone monitoring points at the Facility includes one dry well (PSL-7), five lysimeters (PSL-1, PSL-2, PSL-3, PSL-4, and PSL-6), four unsaturated zone soil pore gas probes (PSG-1, PSG-2, PSG-3, and PSG-4) and a Transfer Stations wash water storage tank. The points are shown Attachment "A" of this Monitoring and Reporting Program.

B. Constituents of Concern and Monitoring Parameters

The constituents of concern (COCs) and monitoring parameters for soil gas probes samples are the gases methane, carbon dioxide, oxygen, nitrogen and volatile organic constituents (VOCs) as defined by Environmental Protection Agency (EPA) Method TO-14. The COCs for liquid samples taken from the lysimeters are those constituents listed in Appendix II of Title 40, Code of Federal Regulations (40CFR).

The monitoring parameters for liquid samples taken from lysimeters are chloride, sulfate, nitrate as nitrogen, total dissolved solids, and VOCs as defined by EPA Method 8260. The monitoring parameters for samples taken from the transfer station wash water storage tank are the VOCs by EPA Method 8260 and semi-volatile organic compounds (SVOCs) by EPA Method 8270 using the analytical method that provides for the lowest Practical Quantitation Limit (PQL).

## II. MONITORING

The following data must be collected as specified below:

### A. Detection Monitoring

A detection monitoring program (DMP) has been developed by the Discharger as required by California Code of Regulations, title 27, and the requirements of 40CFR, Parts 257 and 258 (Subtitle D regulations).

Monitoring must consist of the collection of soil gas samples, lysimeter samples, and water samples from all monitoring points described above or their replacements. Semi-annual monitoring of the well must consist of reporting if there is water in the well, the groundwater elevation if measurable water is present in the well, and the condition of the well. If sufficient groundwater is present in well PSL- 7 during a given semi-annual monitoring event, a sample will be collected for laboratory testing. Samples must be collected on a semi-annual basis for the lysimeters. Field screening of the soil-pore gas probes will be performed on a semi-annual basis; if the methane concentration in a given probe exceeds five percent by volume (5% v/v), a sample will be collected from that probe for laboratory testing of volatile organic compounds. All samples must be analyzed for the monitoring parameters on a semi-annual basis and for the constituents of concern once every five years.

### B. Monitoring Parameters

Monitoring must be performed and, when appropriate, samples must be collected and submitted for laboratory analysis at all monitoring points semi-annually for the monitoring parameters listed in this Monitoring and Reporting Program.

### C. Constituents of Concern

Samples must be collected at all monitoring points and submitted for laboratory analysis for the constituents of concern (COCs) listed in this Monitoring and Reporting Program. Testing for the COCs must occur alternately in the spring of year one (the reporting period ends June 30), and the autumn of the fifth year thereafter (the reporting period ending December 31). The next scheduled testing events for the constituents of concern will occur during the monitoring periods of autumn of 2010 and spring of 2015, and will alternate between the fall and spring monitoring periods thereafter.

D. Interim Cover Monitoring

The Discharger has installed a final cover over the closed Landfill. The cover has been vegetated and graded to a slope, which is intended to promote runoff and prevent ponding. The Discharger must monitor and **report annually** on the condition of the cover to ensure the integrity of the cover and evaluate the cover's capability to promote runoff and prevent ponding.

III. DATA ANALYSIS

A. General Statistical Analysis Method

General statistical analysis is not required for the unsaturated zone monitoring data. This Monitoring and Reporting Program does not require general statistical data analysis.

B. Site-Specific Statistical Analysis Method

Site-specific statistical analysis is not required for the unsaturated zone monitoring data. This Monitoring and Reporting Program does not require site-specific statistical data analysis.

C. Nonstatistical Method

In accordance with this Order, evaluation monitoring will be initiated without statistical verification if there is significant physical evidence of a release. Physical evidence can include time series plots, vegetation loss, or soil discoloration. Each semi-annual report must comment on these physical elements.

IV. REPORTING REQUIREMENTS

A. Scheduled Reports to be Filed with the Water Board

The following periodic reports must be submitted to the Water Board as specified below:

Semi-Annual Detection Monitoring Reports

1. Results of sampling and laboratory analysis of groundwater and soil gas.
2. An Executive Summary must accompany each report. The summary must include a discussion of any requirement violations found since

the last report was submitted, and must describe actions taken or planned for correcting those violations.

3. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting this schedule will be satisfactory. If no violations have occurred since the last submittal, this must be stated in the letter of transmittal.
4. For each monitored groundwater body, a description and graphical presentation of the velocity and direction of groundwater flow under/around the Facility, based upon water level elevations taken during the collection of the water quality data submitted in the report.
5. A map or aerial photograph showing the locations of the unsaturated zone and groundwater monitoring points.
6. A description and graphical illustration of the analytical data on an appropriately-scaled concentration-versus-time plot for each well, lysimeter, and unsaturated zone soil pore gas probe.
7. The Post-Closure Maintenance Report must contain a description of the conditions of the cover materials. Specifically, comments regarding any subsidence or soil cover washouts that have occurred, and the capability of the cover to promote runoff and prevent ponding should be included. In the case where subsidence, washouts or other damage to the cover is noted, the report must indicate the actions taken to repair cover material so that the event will not reoccur.

B. Unscheduled Reports to be Filed with the Board

1. Notice of Tentative Release

Should the appropriate statistical or non-statistical data analysis indicate for a given constituent of concern that a release is tentatively identified, the Discharger must:

- a. Immediately notify the Water Board verbally as to the monitoring point(s) and constituent(s) or parameter(s) involved.
- b. Provide written notification by certified mail within seven days of such determination pursuant to California Code of Regulations, title 27, section 20420(j). The notification should indicate the Discharger's intent to conduct verification sampling, initiate evaluation monitoring procedures, or

demonstrate that a source other than the Landfill is responsible of the release.

- c. If the Discharger chooses to attempt to demonstrate that a source other than the Landfill is responsible for the release, the Discharger must submit a supporting technical report within 90 days of detection of the release.

2. Evaluation Monitoring

The Discharger must, within 90 days of verifying a release, submit a technical report proposing an evaluation monitoring program (EMP) pursuant to California Water Code, section 13267(b). If the Discharger decides not to conduct verification procedures, or decides not to make a demonstration that a source other than the Landfill is responsible for the release, the release will be considered verified.

3. Engineering Feasibility Study Report

Within 180 days of identification of physical evidence of a release, the Discharger must submit a technical report discussing conclusions and recommendations from the DMP and the EMP. The report must include an engineering feasibility study along with a proposed corrective action plan, or recommend a return to DMP in accordance with California Code of Regulations, title 27, section 20425.

C. General Provisions

The Discharger must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.

D. Submittal Periods

Semi-annual monitoring reports must be submitted to the Water Board on the **30th day of the month following the semester.**

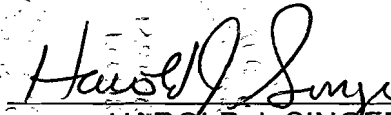
E. Annual Report

On or before **January 31, 2008**, and on **January 31** every year thereafter the Discharger must submit an annual report to the Water Board for the period January to December. This report must include the items described in the General Provisions for Monitoring and Reporting (Attachment B).

F. Financial Assurance

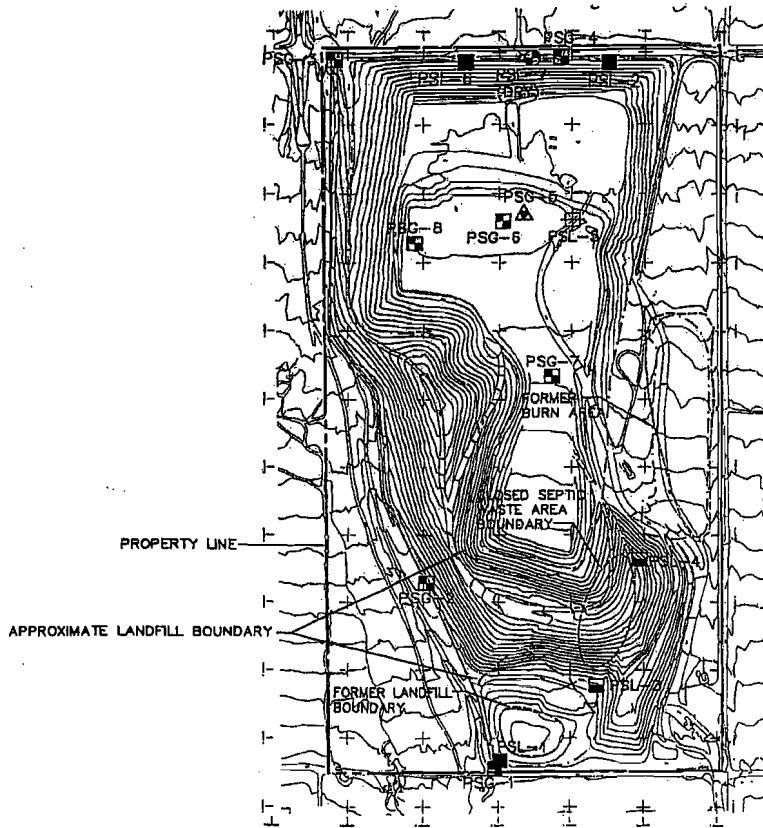
On or before **January 31, 2008**, and before **January 31** every year thereafter the Dischargers must submit an annual financial assurance report to the Water Board, providing evidence that adequate financial assurance pursuant to the requirements of the WDRs has been provided for closure/postclosure and corrective action. Evidence must include the total amount of money available in the fund developed by the Discharger. In addition, the Discharger must either provide evidence that the amount of financial assurance is still adequate or increase the amount of financial assurance by the appropriate amount. An increase may be necessary due to inflation, a change in regulatory requirements, a change in the approved closure plan, or other unforeseen events.

Ordered by:







  
HAROLD J. SINGER  
EXECUTIVE OFFICER

Dated: June 13, 2007

Attachments:      A.    Monitoring Points Location Map  
                          B.    General Provisions for Monitoring and Reporting



**EXPLANATION:**

- PSL-2  LYSIMETER LOCATION (SOIL-PORE MOISTURE DID NOT ACCUMULATE IN ANY OF THE LYSIMETERS)
- PSL-3  ABANDONED LYSIMETER LOCATION
- PSL-5  EXPLORATORY BORING TO 50 FEET BELOW LANDFILL
- PSL-7  GROUNDWATER MONITORING WELL LOCATION (DRY WHEN DRILLED TO 1000 FEET BELOW GROUND SURFACE)
- PSG-1  SOIL-PORE GAS MONITORING PROBE LOCATION
- PSG-5  LANDFILL GAS MONITORING PROBE LOCATION

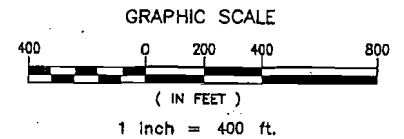



FIGURE 13-1

|  |                |          |
|--|----------------|----------|
| MONITORING POINTS LOCATION MAP   |                |          |
| WATER QUALITY MONITORING REPORT  |                |          |
| THIRD QUARTER (SUMMER) 2008  |                |          |
| PHELAN SANITARY LANDFILL   |                |          |
| COUNTY OF SAN BERNARDINO, CA   |                |          |
|  <b>GeoLogic Associates</b><br>Geologists, Hydrogeologists, and Engineers |                |          |
| DRAWN BY:  | DATE:          | JOB NO.  |
| VL   | SEPTEMBER 2008 | 2008-127 |

**REFERENCE:**

SAN BERNARDINO COUNTY WASTE SYSTEM  
DIVISION, CAD MAP AS OF SEPTEMBER 1997.

**MONITORING POINTS LOCATION MAP**  
**ATTACHMENT A**



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**GENERAL PROVISIONS**  
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
  - i. Standard Methods for the Examination of Water and Wastewater
  - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
- d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

## 2. OPERATIONAL REQUIREMENTS

### a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three 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.

### b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

## 3. REPORTING

- a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three 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.
- c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
  - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
  - ii. In the case of a partnership, by a general partner;
  - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
  - i. Name and telephone number of individual who can answer questions about the report.
  - ii. The Monitoring and Reporting Program Number.
  - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

#### 4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.