



California Regional Water Quality Control Board

San Diego Region



Terry Tamminen
Secretary for
Environmental
Protection

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<http://www.swrcb.ca.gov/rwqcb9>

Arnold Schwarzenegger
Governor

January 30, 2004

CERTIFIED – RETURN RECEIPT REQUESTED
7003 1680 0000 7393 6131

Ms. Candace Gibson
Solid Waste Management
Department of Public Works
County of San Diego
5201 Ruffin Road, Suite D (M.S. 0383)
San Diego, CA 92123

In reply refer to:
LD:06-0244.02

Dear Ms. Gibson:

RE: CLEANUP AND ABATEMENT ORDER (CAO) NO. R9-2004-0039: VALLEY CENTER LANDFILL, SAN DIEGO COUNTY

Enclosed is a copy of California Regional Water Quality Control Board, San Diego Region (“Regional Board”) Cleanup and Abatement Order (CAO) No. R9-2003-0039 requiring the cleanup and abatement of environmental pollution from wastes discharged from the Valley Center Landfill. I strongly urge your prompt compliance with all the directives of CAO No. R9-2003-0039.

You may contest the issuance of Cleanup and Abatement Order (CAO) No. R9-2004-0039 by requesting a public hearing on the matter before the Regional Board. In order to schedule a hearing, this office must receive a written request at least 30 days prior to the Regional Board Meeting. Be aware that a request for a hearing does not stay any of the deadlines in the CAO. If you have any questions regarding this matter, please contact Mrs. Amy Grove of my staff at (858) 637-7136, or via e-mail at grova@rb9.swrcb.ca.gov.

Sincerely,

JOHN H. ROBERTUS
Executive Officer

JHR: jro: alg

Enclosure: Cleanup and Abatement Order R9-2004-0039: Valley Center Landfill

cc: Ms. Kerry McNeill, Supervising Environmental Health Specialist, County of San Diego, Local Enforcement Agency, 9325 Hazard Way, San Diego, CA 92123-1217

California Environmental Protection Agency

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

CLEANUP AND ABATEMENT ORDER NO. R9-2004-0039

**COUNTY OF SAN DIEGO
VALLEY CENTER SANITARY LANDFILL
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. The County of San Diego owns and previously operated the Valley Center Landfill.
2. The Valley Center Landfill is located about 1.6-miles west of Valley Center Road, and 0.5-miles north of Betsworth Road (Section 10, Township 11 south, Range 2 west of the San Bernardino Base and Meridian (SBB&M) co-ordinate system.
3. Between the years 1958 to 1978, the County of San Diego discharged wastes into the Valley Center Landfill. Upon completion of waste disposal operations, the County of San Diego covered the wastes with soil and began implementation of maintenance and monitoring pursuant to Order No. 95-29, Waste Discharge Requirements for Post-Closure Maintenance for County of San Diego, Valley Center Sanitary Landfill, and addenda thereto.
4. The Basin Plan establishes the following beneficial uses for the surface waters of the Moosa Hydrologic Subarea (3.13) and groundwater in the Lower San Luis Rey Hydrologic Area (3.10) located in the San Luis Rey Hydrologic Unit:

Inland Surface Waters	Ground Water
Agricultural supply	Municipal and domestic supply
Industrial service supply	Agricultural supply
Water contact recreation	Industrial service supply
Non-contact water recreation	
Warm fresh-water habitat	
Wildlife habitat	

5. Since 1994, a variety of waste constituents have been identified in samples collected from groundwater wells and groundwater "seeps" located at the Valley Center Landfill. Water samples collected at the Valley Center Landfill have historically contained the following constituents at concentrations exceeding the

applicable water quality objectives established for the Lower San Luis Hydrologic Area (903.10):

Constituent	Ground Water Quality Objective / MCL (mg/l)	Surface Water Quality Objective (mg/l)	Range of Concentrations in Water Samples 2000 - 2003 (mg/l)
Total Dissolved Solids	800	500	880 to 1,840
Chloride	300	250	72 to 520
Iron (Fe)	0.3	0.3	<0.003 to 0.441
Manganese (Mn)	0.05 ¹	0.05	<0.001 to 0.377
Chlorobenzene	0.070	NE	<0.00031 to 0.0035
cis-1,2-Dichloroethene	0.006	NE	<0.0042 to 0.016
Trichloroethene	0.005	NE	<0.00031 to 0.003
Tetrachloroethene	0.005	NE	<0.0019 to 0.0091

NE = excepted from municipal and domestic uses in Basin Plan.

1 = Secondary MCL for manganese established in Basin Plan.

In addition, concentrations of calcium appear to exceed background concentrations established using groundwater monitoring wells VCGW-3 and VCGW-4. Further, detectable levels of methylene chloride (dichloromethane), and dichlorodifluoromethane have historically been detected in groundwater samples collected from the site. Concentrations of chlorobenzene were detected in a leachate seeps located in proximity to the waste management unit.

6. In 2001, the County of San Diego identified two groundwater seep locations identified as VAL-SS-1 and VAL-SS-2. In 2002, a third groundwater seep was identified at the site: VAL-SS-3. Chlorobenzene has been reported in the two downgradient seeps (VLA-SS-1 and VAL-SS-3), indicating that the discharge of polluted groundwater is a threat to surface water quality in the offsite area.
7. The discharge of wastes from the landfill is causing a condition of pollution in groundwater in the Lower San Luis Rey River Hydrologic Area (903.10).
8. The discharge of waste constituents from the Valley Center Landfill threaten to cause a condition of nuisance or pollution in surface water resources in the Lower San Luis Rey River Hydrologic Area (903.10).
9. The current waste containment unit and landfill gas extraction/treatment system fail to adequately contain waste constituents in the Valley Center Landfill. As a result, there are continuing discharges of waste constituents to groundwater and into groundwater seeps located down hydrologic gradient from the Valley Center Landfill.

10. Although the County of San Diego has monitored, detected, and reported concentrations of waste constituents in groundwater, and in downgradient groundwater seeps, delineation of the full extent of impacts to water quality has not been completed at this time.
11. CCR Title 27, § 20080(g) provides that persons responsible for discharges at waste management units that were closed, abandoned, or inactive on or before November 27, 1984 (CAI Units), may be required to develop and implement a corrective action program.
12. CCR Title 27 authorizes the Regional Board to require the County of San Diego to implement an Evaluation Monitoring Program (EMP) pursuant to the California Code of Regulations (CCR) Title 27, §20425.
13. CCR Title 27 authorizes the Regional Board to require the County of San Diego to develop and implement a Corrective Action Program (CAP) pursuant to CCR Title 27, §20430.
14. On June 18, 1992, the State Water Resources Control Board adopted Resolution No. 92-49: "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304." Resolution No. 92-49 was further amended on April 21, 1994 and October 2, 1996.
15. This enforcement action is exempt from the provisions of the California Environmental Quality Act (Public Resources Code §21000, *et seq.*) in accordance with CCR Title 14, Chapter 3, §15321.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, the County of San Diego (hereinafter the "*discharger*") shall cleanup and abate the effects of the discharge and comply with the following Directives:

A. EVALUATION MONITORING PROGRAM (EMP)

By **February 1, 2005**, the discharger shall submit to the Regional Board an updated Report of Waste Discharge (RWD) containing all the information required by CCR Title 27, § 20425. The final technical report shall contain all site-specific data collected during the investigation, including the following information:

1. **Site Conceptual Model:** The discharger shall provide the Regional Board with a Site Conceptual Model (SCM). The SCM is a written or pictorial representation of the release scenario, the likely distribution of wastes at the site, as well as potential pollutant migration pathways and receptors. The SCM shall identify and describe the types of wastes present including their distribution in space and time, and how the wastes are changing in space and time.

The SCM shall also identify the potential, current and future receptors in the area; link potential sources to potential receptors through transport of wastes in the air, soil and water; and identify the fate and transport characteristics of the site. The SCM shall describe or show the physical characteristics and properties of the subsurface and identify the environmental issues that need to be investigated (as well as those issues that do not need to be addressed). The initial SCM shall include a discussion of the level of uncertainty of conclusions, outline data gaps remaining in the conceptual model, and describe the additional work needed to fill identified data gaps. To the extent possible, the dischargers shall confirm their site conceptual model using a combination of existing site-specific data and additional data developed during the site investigation process.

The SCM shall be refined and updated as site characterization data become available. Updates to the SCM shall be included as an appendix to the semi-annual monitoring reports submitted to the Regional Board. The first SCM shall be submitted to the Regional Board by **April 30, 2004**. Any updates or revisions to the SCM shall be included in the Engineering Feasibility Study Report submitted in compliance with **Directive B.1** of this Order.

2. **Delineation of release.** Delineation shall continue until the maximum extent of groundwater pollution from waste constituents (*i.e.*, to non-detectable concentrations) has been determined in the horizontal and vertical directions. The assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone(s) affected by the release. Delineation of waste constituents in water resources shall include on- and off-property areas of the site.
3. **Implementation of Evaluation Monitoring Program (EMP).** The scope of the EMP shall include an assessment of waste constituents in groundwater, surface water, and groundwater seeps. The discharger shall provide any additional technical reports, plans, and monitoring information that may be required to fully execute and document the EMP, pursuant to CCR Title 27, §20425. The discharger shall propose a schedule for implementation in the "Groundwater Sampling and Analysis Plan" submitted in compliance with **Directive E.3** of this Order.

B. EVALUATION AND SELECTION OF REMEDY

1. Engineering Feasibility Study (FS)

The discharger shall submit to the Regional Board a complete comprehensive FS Report by **February 1, 2005**. The discharger shall submit a Comprehensive FS Report containing an assessment of corrective measures and the selection of a remedy for water pollution from the Valley Center Landfill.

The comprehensive FS Report shall include the following minimum components:

(a) **Assessment of Corrective Measures (ACM)** for each potential remedy shall include an assessment of the following minimum criteria:

1. The discharger shall assess each corrective measure for attainment of the following groundwater protection standards:

a. A concentration limit for each pollutant of concern not to exceed the background value of constituents determined per CCR Title 27 §20400(a)(1).

Background concentrations for naturally occurring constituents must be established pursuant to CCR Title 27, §20415(e)(6)-(7). There should be no “background concentrations” for organic waste constituents (e.g., volatile organic compounds (VOCs) and chlorinated VOCs). Therefore, the water quality protection standard or “concentration limit” for organic waste constituents is the practical quantitation limit (PQL) for organic waste constituents using the appropriate analytical method selected per **Directive C.1(a)** of this Order.

b. The Regional Board may consider establishing alternative water quality cleanup levels, or concentrations limits greater than background (CLGB), if the discharger provides acceptable information allowing the Regional Board to make the finding that it is technologically or economically infeasible to achieve background concentrations and evaluate all the considerations specified in CCR Title 27 §20400(c), §20400(d), and §20400(e).

2. Maximum numerical water quality cleanup levels. The numerical water quality cleanup levels for the maximum concentrations of the known constituents of concern are as follows:

Organic Constituents	Ground water Cleanup Levels	Surface Water Cleanup Levels
Monochlorobenzene	70 ¹	TBP
<i>cis</i> -1,2-Dichloroethene	6 ¹	TBP
Tetrachloroethene	5 ¹	TBP
Trichloroethene	5 ¹	TBP
Methylene Chloride (Dichloromethane)	5 ¹	TBP
Total Trihalomethanes	0.1 ¹	TBP

Chloride	300 ²	250 ²
Total Dissolved Solids (TDS)	800 ²	500 ²
Sulfate	400 ²	250 ²
Iron (Fe)	0.3 ²	0.3 ²
Manganese (Mn)	0.05 ²	0.05 ²

TBP = Specific surface water quality objectives established in the Regional Board Basin Plan. Concentration limits for these constituents shall be developed by the discharger in accordance with **Directive B.1(a)(1)**, supported by a technical evaluation of all the surface water factors referenced in CCR Title 27, §20400, and proposed to the Regional Board in an updated Report of Waste Discharge submitted in compliance with **Directive A** of this Order.

1 = Primary maximum contaminant levels (MCLs) from Regional Board Basin Plan (p. 3-10, Table 3-6: incorporated by reference from California Code of Regulations, Title 22, § 64444). Concentration units for organic constituents are indicated in µg/L.

2 = Water Quality Objectives from Regional Board Basin Plan (p. 3-28, Table 3-3). Concentration units for organic constituents are indicated in mg/L. If it is demonstrated that concentrations of naturally occurring constituents exceed the Basin Plan WQS, the Regional Board may adopt revised water quality protection standards for the affected waste constituents.

3 = Water Quality Objective Regional Board Basin Plan (page 3-28) with reference to maximum contaminant levels for total trihalomethane from 40 CFR § 141.12. Total Trihalomethanes is defined as the sum of concentrations for bromodichloromethane+ dibromochloromethane+trichlorobromomethane (bromoform)+ trichloromethane (chloroform). Concentration units for total trihalomethanes are indicated in µg/L.

This list of constituents of concern (above) will be modified by the Regional Board based upon additional information that becomes available during implementation of the Evaluation and Monitoring Program (EMP) per **Directive A.3** of this Order.

(b) **Selected Remedy** shall address the following minimum criteria:

1. The selected remedy must meet the following minimum requirements:

- a. **Protection of human health.** The selected remedy must result in a cumulative carcinogenic risk level of no greater than 1×10^{-6} , including all exposure pathways for residual waste constituents. The non-carcinogenic effects from exposure to waste constituents shall be quantified as the hazard index (HI), derived from summation of hazard quotients (HQ) for individual residual waste constituents, shall be less than 1 ($HI < 1$). Examples and methods used to quantify carcinogenic risk and non-carcinogenic hazards may be found in USEPA Risk Assessment Guidance for Superfund (1989, Chapter 8, see also <http://www.epa.gov/superfund/programs/risk/toolthh.htm>).
 - b. **Attainment of the groundwater cleanup levels.** The selected remedy shall be able to restore water quality to the water quality protection standards required in **Directive B.1(a)(1)** of this Order.
 - c. **Source Control.** The selected remedy must result in effective control of the source(s) of soluble groundwater pollutants, and control of conditions that contribute to the migration of soluble pollutants from wastes.
 - d. **Waste management.** The selected remedy must comply with all waste management requirements as specified in applicable State and Federal regulations.
 - e. **Compliance with water quality objectives.** The selected remedy must not result in water quality less than that prescribed in (1) the Basin Plan and Policies adopted by the State and Regional Boards, including beneficial uses, water quality objectives and implementation plans; (2) State and Regional Water Board policies including State Water Board Resolutions No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and No. 88-63 (Sources of Drinking Water); and (3) relevant standards, criteria, and advisories adopted by other state and federal agencies.
- (c) The discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or surface water monitoring devices necessary to comply with this Order.
 - (d) The discharger shall select the remedy, or combination of remedies, that ensure that the water quality protection standards assigned by this Order. The water quality objectives shall be attained at all monitoring points and

throughout the zone affected by the release, including any portions thereof that extend beyond the facility boundary.

- (e) The discharger shall ensure that the FS Report provides the Regional Board with a schedule for initiating and completing the selected remedy for cleanup and abatement of water pollution from the site.
- (f) The discharger shall provide any additional information, technical reports, and monitoring information that may be required to fully execute and document the progress of the Corrective Action Program pursuant to CCR Title 27, §20430.
- (g) The discharger shall implement the selected remedy in a Corrective Action Program pursuant to requirements specified in CCR Title 27, §20430.

C. WATER QUALITY MONITORING

1. Monitoring Provisions

- (a) Unless otherwise permitted by the Regional Board, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Specific methods of analysis must be identified. If the discharger proposes to use methods other than those included in the most current version of "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*" (U.S. Environmental Protection Agency), the exact methodology must be submitted for review and must be approved by the Regional Board 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.
- (b) If the discharger monitors any pollutants more frequently than required by this Order, using the most recent version of "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*", the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring reports. The increased frequency of monitoring shall also be reported.
- (c) All monitored instruments and equipment used by the discharger to fulfill the prescribed monitoring program shall be properly calibrated and maintained as necessary to ensure their continued accuracy.
- (a) Records of monitoring information shall include all information required to comply with Order No. 95-29, Waste Discharge Requirements for Post-

Closure Maintenance for County of San Diego, Valley Center Sanitary
Landfill, and addenda thereto.

2. Groundwater Quality Monitoring

The discharger shall follow the requirements of the groundwater monitoring program specified by Order No. 95-29, Waste Discharge Requirements for Post-Closure Maintenance for County of San Diego, Valley Center Sanitary Landfill, and addenda thereto.

All additional groundwater-monitoring wells shall be properly developed after construction and prior to collecting samples for the purpose of complying with the water quality monitoring requirements in this Order. The discharger shall provide a technical report that describes the new well construction details and the "development method(s)" employed at each new monitoring well in an appendix to the next available semi-annual report.

3. Groundwater Sampling and Analysis

By **April 30, 2004**, the discharger shall submit a plan for sampling and analysis of groundwater for the purpose of executing an effective Evaluation Monitoring Program (EMP) as required pursuant to CCR Title 27, §20425. The first round of water samples from all sampling points (i.e., groundwater wells and surface water samples/seeps) shall contain analytical results for all constituents listed in Directive B.2 (Water Quality Cleanup Levels) of this Order. The discharger shall continue to regularly monitor those constituents found in concentrations above designated water quality objectives and report results in subsequent water quality monitoring reports in compliance with this Order.

4. All monitoring reports shall be signed by an authorized person(s) as required by **Report Declaration, Directive F** of this Order.

D. SITE MAINTENANCE

The discharger shall comply with all site maintenance requirements of Order No. 95-29, Waste Discharge Requirements for Post-Closure Maintenance for County of San Diego, Valley Center Sanitary Landfill, and addenda thereto. The surface water conveyance system shall also comply with the performance standards specified in CCR Title 27, §20365(c).

E. REPORTS TO BE FILED WITH THE REGIONAL BOARD

Reports shall be comprised of at least the following in addition to the specific contents listed for each respective report type:

1. Transmittal Letter

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

- (a) A discussion of any violations of this Cleanup and Abatement Order found since the last such report was submitted and shall describe actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting the violations, a reference to the correspondence transmitting such schedule will be satisfactory. If violations have not occurred since the last submittal, this shall be stated in the transmittal letter;
- (b) In order to assist the Regional Board in processing of correspondence and reports submitted in compliance with this Cleanup and Abatement Order, the discharger shall include the following code number in the header or subject line portion of all correspondence or reports submitted: **LAND 06-0244.05.**

2. Groundwater Summary Reports

- (a) The discharger shall continue to submit semi-annual reports to the Regional Board in compliance with Order No. 95-29, Waste Discharge Requirements for Post-Closure Maintenance for County of San Diego, Valley Center Sanitary Landfill, and addenda thereto.
- (b) The discharger shall continue to submit annual reports to the Regional Board in compliance with Order No. 95-29, Waste Discharge Requirements for Post-Closure Maintenance for County of San Diego, Valley Center Sanitary Landfill, and addenda thereto.
- (c) The discharger shall amend the groundwater reports required by Order No. 95-29, and addenda thereto, with additional separate appendices containing any additional information collected/reported during the execution of the Evaluation Monitoring Program (EMP: pursuant to CCR Title 27, § 20425) and/or Corrective Action Program (CAP: pursuant to CCR Title 27, § 20430) as required by this Order.

3. Schedule for Monitoring Reports

The semi-annual Reporting Periods end on September 30 and March 31. The annual Reporting Period ends March 31 each year. Monitoring reports shall be submitted to the Regional Board in accordance with the schedule included in Order No. 95-29, and addenda thereto:

Report Frequency	Report Period	Report Due
Semiannually	October – March April- September	30 days after the reporting period ends.
Annually	April - March	30 days after the reporting period ends.

4. Notification of Emergency Conditions

The discharger shall notify the Regional Board by telephone or facsimile **within 24-hours** of any condition that is created by the discharge of wastes to land or water resources resulting from corrective actions taken at this site. The initial notification must be followed by a detailed written description of the discharge, an explanation of the conditions that resulted in the discharge of wastes, and the emergency remedial actions taken to mitigate the effects of the discharge. The written notification shall be sent to the Regional Board by certified mail.

5. Notification of off-site discharge

If the discharger determines that a release has crossed the facility boundary; the discharger shall, within **30 days** of such determination, provide the Regional Board with a written list of the names and addresses of all “affected parties” [all persons who currently own or reside upon land that overlies the release]. The Regional Board may invite these affected parties to a Regional Board meeting at which the potential corrective measures are discussed and either chosen or revised.

F. REPORT DECLARATION

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

1. Use of Registered Professionals.

The discharger shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professions. California Business and Professions Code Sections 6735, 7835 and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of registered professionals. A statement of qualifications and registration numbers of the responsible lead professionals shall be included in all plans and reports submitted by the discharger. The lead professional shall sign and affix their registration stamp to the report, plan or document.

2. Required Signatures and Certification Statement

All written reports submitted to the Regional Board in compliance with this Order shall be signed by the discharger and shall contain the following certification statement:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of civil liabilities imposed administratively by the Regional Board or imposed by the Superior Court.”

G. REPORTING TO THE REGIONAL BOARD

All monitoring and technical reports shall be submitted to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
Attn: Supervisor Land Discharge Unit

H. NOTIFICATIONS

1. The California Water Code Section 13350 provides that any person who intentionally or negligently violates any Cleanup and Abatement Order issued, reissued, or amended by this Regional Board is subject to administrative civil liability of up to five thousand (\$5,000) dollars per day of the violation. The Superior Court may impose civil liability of up to fifteen thousand (\$15,000) dollars per day of the violation.
2. The California Water Code Section 13268 provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and may be liable civilly in accordance with this section,

January 30, 2004

3. Pursuant to California Water Code Section 13304(c), the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by the Order.


Ordered By 
JOHN H. ROBERTUS
Executive Officer
January 30, 2004

TABLE 1:
SUMMARY OF COMPLIANCE DATES
FOR CLEANUP AND ABATEMENT ORDER NO. R9-2004-0039
COUNTY OF SAN DIEGO
VALLEY CENTER SANITARY LANDFILL

DIRECTIVE NO.	SUBMITTAL TO REGIONAL BOARD	DUE DATE
A	Updated Report of Waste Discharge	February 1, 2005
A.1	Site Conceptual Model	April 30, 2004
B.1	Engineering Feasibility Study	February 1, 2005
C.3	Groundwater Sampling and Analysis Plan - Evaluation Monitoring Program	April 30, 2004
E.3	Semi-annual Monitoring Reports	April 30 October 30
E.3	Annual Monitoring Reports	April 30