

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

ORDER NO. R7-2003-0045

WASTE DISCHARGE REQUIREMENTS  
AND  
CLOSURE/POST CLOSURE MAINTENANCE  
FOR  
COUNTY OF SAN BERNARDINO, OWNER/OPERATOR  
MORONGO VALLEY SANITARY LANDFILL  
CLASS III LANDFILL  
Morongo Valley - San Bernardino County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. The County of San Bernardino Solid Waste Management Division, formerly known as the County of San Bernardino Solid Waste Management Department (hereinafter referred to as the discharger), 222 West Hospitality Lane, Second Floor, San Bernardino, California 92415-0017, owns and administers the operation of the Morongo Valley Sanitary Landfill (hereinafter referred to as the Landfill) for the disposal of municipal solid waste.
2. The Landfill is located one mile northeast of the community of Morongo Valley in an unincorporated portion of San Bernardino County in S ½ of the NW ¼ of Section 27, T1S, R4E, SBB&M, as shown in Attachments A and B incorporated herein and made part of this Board Order.
3. Definitions of terms used in this Board Order:
  - a. Waste Management Facility (WMF) - The entire parcel of property at which waste discharge operations are conducted.
  - b. Waste Management Unit (WMU) - An area of Land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and monitoring.
  - c. Landfill - A waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundments, waste piles, land treatment or soil amendments.
4. As of November 1998, the site is closed, and a transfer station is in operation.
5. The discharger submitted a Report of Waste Discharge (ROWD) on April 5, 2002.
6. The Landfill is located on the northwestern flank of the Little San Bernardino Mountains between the Mojave Desert and Transverse Ranges geomorphic provinces along the Morongo Valley Fault.
7. Geologic units in the area include sheared and deformed metamorphic rocks that form the core of the Little San Bernardino Mountains, Mesozoic plutonic rocks, and relatively recent valley-filling alluvial fan and river deposits.
8. Alluvium under the Landfill consists of poorly graded to well graded sand containing minor interbeds of gravel, silt and clay.
9. The Landfill is located in an area that is generally seismically active. Numerous active or potentially active faults occur within 20 miles of the site. The Morongo Valley Fault trends northeast to southwest and appears to bisect the site as shown in Attachment D, appended herein and made a

part of this Board Order. The Pinto Mountain Fault is located approximately two miles north of the site and the Mission Creek Fault is located approximately four miles south of the site. Both of these faults are considered active showing evidence of movement within Holocene time.

10. The Landfill began accepting waste in 1963. In 1973, the Landfill became subject to Waste Discharge Requirements (WDRs) under Board Order No. 73-004. The WDRs were updated and superseded by Board Order No. 88-038. The WDRs were again updated on March 31, 1991 when the Regional Board adopted Board Order No. 91-022. In September 15, 1993, the WDRs were amended when Board Order No. 93-071, amending all Municipal Solid Waste Landfill Board Orders to comply with federal regulations, was adopted by the California Regional Water Quality Control Board Colorado River Basin Region (hereinafter referred to as the Regional Board).
11. This Board Order updates the WDRs to comply with current laws and regulations as set forth in the California Water Code and the California Code of Regulations, Title 27, and to address changes requested by the discharger.
12. The Landfill accepted Class III non-hazardous waste. The waste types accepted at the Landfill are as follows:
  - a. Residential
  - b. Commercial
  - c. Demolition/Construction
  - d. Agricultural
13. The Landfill is not lined and does not have a leachate collection and removal system.
14. The discharger had a load-checking program for identifying and removing hazardous and prohibited wastes from the municipal waste stream coming to the Landfill. Specific components of the program include the following:
  - a. Customer notification by signs, notices and verbal inquiries.
  - b. Surveillance through visual inspection of waste loads and questioning of customers by entrance station personnel.
  - c. Waste inspection conducted on randomly selected loads at the working face.
15. The Landfill is at an elevation of about 2680 feet at the mouth of a steep, narrow canyon that drains approximately 210 acres of watershed with a low infiltration rate. The County of San Bernardino has constructed a 100-year drainage channel that begins at the upper end of the active disposal area and diverts drainage water to the next arroyo to the south. The channel bottom is excavated in native soil and is designed to prohibit drainage from contacting or percolating through the wastes.
16. Annual averages for evaporation and precipitation in the area are 104 inches and 7.3 inches, respectively.
17. The 100-year, 24-hour precipitation event for the site is 6.5 inches.
18. The Landfill is not within a 100-year floodplain.
19. Land within a one-mile radius of the Landfill is zoned for resource conservation, rural residential, and special purposes.
20. A total of 50 wells are located within a one (1)-mile radius of the Landfill. Water use from these wells

is primarily municipal.

21. The Landfill is located in the Morongo Hydrologic Subunit. The hydrogeology within the Morongo Valley is dominated by the Big Morongo Creek, which flows southwesterly through the length of the Valley.
22. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region.
23. The beneficial use of ground waters in the Morongo Hydrologic Subunit is:
  - a. Municipal supply (MUN)
24. The nearest surface water to the Landfill is a spring about 1/2 mile southwest of the Landfill at Big Morongo Regional Park. Surface water runoff in the vicinity of the site occurs during and shortly after periods of precipitation.
25. During the Solid Waste Assessment Test (SWAT) investigation in March 1988, the discharger installed four ground water monitoring wells:

MV-1	upgradient
MV-2, MV-3, and MV-4	downgradient
26. Groundwater occurs within the alluvium and fractured bedrock at depths of approximately 26 to 85 feet below ground surface. Ground water flow is toward northwest in the central portion of the site and toward the west in the south portion of the site. Groundwater is unconfined beneath the landfill and is interpreted to flow through the alluvium and fractured bedrock toward Big Morongo Creek.
27. The discharger submitted a final SWAT report to the Regional Board on August 24, 1989. Analyses of water samples from downgradient Wells MV-3 and MV-4 indicated that the Landfill is affecting the groundwater quality in the vicinity of the site. The following is the list of the highest concentration of the compounds detected in the groundwater:

<u>Parameter</u>	<u>Result <math>\mu\text{g/L}</math><sup>1</sup></u>	<u>Well No.</u>
Dichlorodifluoromethane	28	MV-3
Trichlorofluoromethane	7.7	MV-3
Tetrachloroethene	3.3	MV-4
Vinyl Chloride	1.7	MV-4

28. The discharger submitted a Closure and Post-Closure Maintenance Plan (PCPMP) on October 27, 1994 and a revised PCPMP on August 18, 1995, which were approved by the Regional Board Executive Officer.
29. The discharger submitted an Evidence of a Release Notification to the Region Board on April 5, 1995. The notification stated that there was evidence of a non-statistical release at the Landfill and Dichlorodifluoromethane at a concentration of 6.3  $\mu\text{g/L}$  was detected in MV-3.

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<sup>1</sup>  $\mu\text{g/L}$  - microgram-per-Liter

30. The discharger submitted an Evaluation Monitoring Program (EMP) workplan on June 28, 1995 and a supplemental Report for the EMP on September 24, 1996.
31. Cleanup and Abatement Order No. 95-096 addressing soil and groundwater pollution at the Landfill was issued to the discharger on September 1, 1995.
32. The discharger installed additional downgradient groundwater monitoring well, MV-5, at the Landfill on November 3, 1995. MV-5 was installed to determine the extent of the ground water pollution. Additionally, three combination piezometers/soil pore gas probes were installed in 1996. The location of the monitoring wells and soil gas probes are shown on Attachment E.
33. Cleanup and Abatement order No. 95-096 was revised to incorporate the discharger's request for schedule modifications, and Cleanup and Abatement Order No. 97-144 was issued by the Regional Board Executive Officer on November 21, 1997.
34. As part of the Corrective Action Plan, a final cover was put on the Morongo Landfill on October 21, 1998. The cover consists of the following layers, in accordance with Title 27, Section 21090 regulations regarding alternative cover systems:

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|---------------------------|--|
| Foundation layer -        | two foot thick layer composed of select soil materials, a minimum of one foot of which has been determined to be in-place existing cover |
| Hydraulic barrier layer - | Geosynthetic Clay Layer (GCL) composed of a bentonite layer between two geotextiles.   |
| Protective soil layer -   | two foot thick layer of select soil material which also comprises the vegetative cover layer.  |

35. Cleanup and Abatement Order No. 97-144 was rescinded by the Regional Board Executive Officer on January 19, 2000.
36. The discharger submitted a full Constituent of Concern (COC) analysis on February 15, 2001. The COC analysis indicated that no organic COC's [pesticides, herbicides, PCB's, or Semi Volatile Organic Compounds (SVOC's)] were detected. A Volatile Organic Compound (VOC) release has been recognized at the Morongo Valley Landfill. The following is a list of highest concentration of compounds detected in the groundwater during the December, 2000 sampling event:

<u>Parameter</u>	<u>Result <math>\mu\text{g/L}</math></u>	<u>Well No.</u>
1,1-Dichloroethane	1.0	MV-3
cis-1,2-Dichloroethene	1.3	MV-3
Dichlorodifluoromethane	7.4	MV-3
Tetrachloroethene	1.0	MV-3
Methylene Chloride	2.8	MV-3
Trichloroethene	0.39	MV-3
Trichlorodifluoromethane	1.7	MV-3
Chloromethane	2.4	MV-4

All detected VOCs at the site are less than Maximum Contamination Levels (MCLs) at the time of adoption of this order.

37. The monitoring and reporting requirements in Monitoring and Reporting Program No. R7-2003-0045 and the technical and monitoring reports described in Provision C.12 are necessary to determine compliance with these WDR's and the facility's impacts on ground water, if any.
38. The Board has notified the discharger and all known interested agencies and persons of its intent to update WDRs for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
39. The Board in a public meeting heard and considered all comments pertaining to this discharge.
40. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resource Code, Section 21000 et seq.).
41. The United States Environmental Protection Agency (USEPA) promulgated federal regulations for storm water discharges (40 CFR Parts 122, 123, and 124). These regulations require that specific categories of facilities, which discharge storm water associated with industrial activities, obtain an NPDES permit and implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
42. The SWRCB adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying WDR's for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent letter (NOI) by industries to be covered under the permit.

IT IS HEREBY ORDERED, that Board Order No. R7-2002-0124 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Specifications

1. A new Landfill footprint constructed on soil that currently does not contain solid waste must have an adequate liner and leachate collection and removal system, in accordance with Title 27, and RCRA Subtitle D.
2. Waste materials shall be confined to the existing footprint of the WMF as defined in Finding No. 3 a. and described in the attached site maps.
3. Waste material shall not be discharged on any ground surface which is less than five (5) feet above the highest anticipated ground water level.
4. The discharge shall not cause degradation of any water supply.
5. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at this site.
6. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
7. The discharger shall use the constituents listed in Monitoring and Reporting Program No. R7-2003-0045, and revisions thereto, as "monitoring parameters". These monitoring parameters are subject to the most appropriate statistical or non-statistical test under Monitoring and Reporting Program No. R7-2003-0045, Part III, and any revised Monitoring and Reporting Program approved by the

Regional Board's Executive Officer.

8. The discharger shall implement the attached Monitoring and Reporting Program No. R7-2003-0045, and revisions thereto, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the Landfill.
9. The discharge shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to Part II.B.4. of the attached Monitoring and Reporting Program No. R7-2003-0045 and revisions thereto.
10. The dischargers shall follow the water quality protection standards (WQPS) for detection monitoring established by the Regional Board in this Board Order pursuant to Title 27 of the California Code of Regulations. The following are five parts of WQPS as established by the Regional Board (the terms of art used in this Board Order regarding monitoring are defined in Part I of the attached Monitoring and Reporting Program No. R7-2003-0045, and revision thereto, which is hereby incorporated by reference):
  - a. The discharger shall test for the monitoring parameters and the Constituents of Concern (COC) listed in the Monitoring and Reporting Program No. R7-2003-0045 and revisions thereto for:
  - b. Concentration Limit - The concentration limits for each monitoring parameter and constituents of concern, for each monitoring point (as stated in detection Monitoring Program Part II), shall be its background value as obtained during that reporting period.
  - c. Monitoring points and background monitoring points for detection monitoring shall be those listed in Part II.B of the attached Monitoring and Reporting Program No. R7-2003-0045, and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer.
  - d. Points of Compliance – (Section 20405, Title 27) shall be those Monitoring Points listed in Part II.B of attached Monitoring and Reporting Program No. R7-2003-0045.
  - e. Compliance Period - The estimated duration of the compliance period for this Landfill is 6 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 dischargers to begin an Evaluation Monitoring Program. If the dischargers' 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.
11. The discharger shall remove and relocate any wastes that are discharged at this site in violation of these requirements.
12. Water used for site maintenance shall be limited to amounts necessary for dust control.
13. The Landfill 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.
14. The discharge 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 Part III of the attached

Monitoring and Reporting Program No. R7-2003-0045 and revisions thereto.

B. Prohibitions

1. The discharge of any waste to the WMF is prohibited.
2. The discharge of waste to land not owned or controlled by the discharger is prohibited.
3. The discharge shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
4. The discharge of any waste to any surface waters or surface drainage courses is prohibited.
5. The discharge shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the Landfill if such waste constituents could migrate to waters of the State, in either the liquid or the gaseous phase, and cause a condition of contamination or pollution.

C. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. R7-2003-0045, and revisions thereto, as specified by the Regional Board's Executive Officer.
2. Prior to any modifications in this facility which would result in material change, in the quality or quantity of waste discharged, the discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.
3. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
4. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
6. The discharger 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 premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;
  - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
  - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
7. This Board Order does 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.

8. 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).
9. All regulated disposal systems shall be readily accessible for sampling and inspection.
10. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
11. The discharger is the responsible party for the WDRs and the monitoring and reporting program for the WMF. The discharger shall comply with all conditions of these WDRs. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and 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.
12. The discharger 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.
13. All containment structures and erosion and drainage control systems 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 Title 27.
14. The discharger shall within 10 working days of a significant earthquake event, submit to the Regional Board a detailed post-earthquake report describing any physical damages to the containment features, ground water monitoring and/or leachate control facilities and a corrective action plan to be implemented at the landfill.
15. The discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions that could impair the integrity of Landfill or of precipitation and drainage control structures.
16. The discharger shall maintain legible records on the volume and type of each waste discharged at the site. These records shall be available for review by representatives of the Regional Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
17. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
18. The discharger shall submit to this Regional Board and to the California Integrated Waste Management Board, evidence of Financial Assurance for Closure and Post Closure, pursuant to Title 27. The post-closure period shall be at least 30 years. However, the post-closure maintenance period shall extend as long as the waste poses a threat to water quality.



19. This Board Order is subject to Regional Board review and updating, as necessary to comply with changing state or federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics.
20. Within 180 days of the adoption of this Board Order, the discharger shall submit to the Regional Board, pursuant to Section 20380(b) of Title 27, assurances of financial responsibility acceptable to the Regional Board's Executive Officer for initiating and completing corrective action for all known or reasonably foreseeable releases to the WMF.
21. Federal regulations for storm water discharges were promulgated by the USEPA (40 CTR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
22. The discharger shall submit a sampling and monitoring plan for storm water discharges to the Regional Board's Executive Officer for review and approval no later than 90 days after adoption of this Board Order. The plan shall meet the minimum requirements of Section B, Monitoring and Reporting Requirements of the Statewide General NPDES permit for Storm Water Discharges Associated with Industrial Activities, Order No. 97-03-DWQ, NPDES No. CAS000001.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on May 7, 2003.

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Executive Officer