

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

ORDER NO. R7-2015-0019

WASTE DISCHARGE REQUIREMENTS  
AND  
CLOSURE / POST CLOSURE MAINTENANCE

FOR

COUNTY OF SAN BERNARDINO WASTE SYSTEM DIVISION, OWNER/OPERATOR  
TWENTYNINE PALMS SANITARY LANDFILL  
CLASS III LANDFILL

East of Twentynine Palms – San Bernardino County

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

1. The County of San Bernardino, 222 West Hospitality Lane, San Bernardino, CA 92415-0017 (hereinafter referred to as the Discharger), is the operator and the owner of the Twentynine Palms Sanitary Landfill (hereinafter referred to as the Landfill), located approximately five (5) miles east of Twentynine Palms and one (1) mile south of Highway 62. The facility is identified in the California Integrated Water Quality System (CIWQS) database with Waste Discharger Identification (WDID) No. 7A 360304231 and in the GeoTracker database by the Global Identification L10006535144.
2. The land was transferred from the previous owner, the Bureau of Land Management (BLM), to the County of San Bernardino, Solid Waste Management Division, in 1999.
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 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 appurtenances.
  - c. Discharger – Discharger means any person who discharges waste that could affect the quality of waters of the State, and includes any person who owns the land, waste management unit, or who is responsible for the operation of a waste management unit.
4. The Landfill property is comprised of approximately 71 acres of which approximately 39 acres have been landfilled.

5. The Twentynine Palms Waste Management Facility (WMF) is located in a portion of the NW ¼ of unsurveyed future Section 5, T1S, R10E, SBB&M approximately five (5) miles east of Twentynine Palms and about one (1) mile south of Highway 62, as shown in Attachments A and B , appended to and made part of this Board Order by reference.
6. The landfill operated as a burn site from 1954 to 1972, after which the burning of refuse was no longer permitted. In 1972, the landfill became subject to Waste Discharge Requirements (WDRs) under Board Order 72-040. The WDRs have been updated five (5) times as follows:

<u>Year:</u>	<u>Board Order Numbers:</u>
1977	77-074
1984	84-096
1990	90-020
2000	00-024
2005	R7-2005-0024

7. On September 15, 1993, the WDRs were amended when Board Order 93-071, incorporating the federal Resources Conservation and Recovery Act (RCRA), Subtitle D, was adopted by the Colorado River Basin Water Board (hereinafter referred to as RCRA Subtitle D).
8. The Landfill is currently regulated by Waste Discharge Requirements under Board Order R7-2005-0024. These Waste Discharge Requirements are being updated to incorporate changes in monitoring and reporting as requested by the Discharger via letter of July 2, 2014, and ROWD, submitted September 2, 2014, They also are being updated to incorporate the applicable closure requirements of combined State Water Resources Control Board/CalRecycle regulations, Division 2, Title 27 (hereinafter referred to as Title 27) and closure and post-closure implementing regulations of RCRA Subtitle D, which are set forth in Title 40 Code of Federal Regulations (CFR), Subpart F, commencing with Section 258.60.
9. The Landfill is on Quaternary alluvial fan deposits at the base of Twentynine Palms Mountain in the Pinto Mountain Range. The surface beneath the Landfill slopes gently northeastward toward Dale Valley at a gradient of two (2) to five (5) percent. Surface elevation ranges from 1,940 feet above mean sea level (MSL) at the northeast corner of the Landfill to 2,145 feet above MSL at the southwest corner of the Landfill. Fill elevations range from 1,970 feet above MSL at the landfill base to 2,060 feet above MSL at the landfill crest.
10. The WMF is underlain by Quaternary Older Alluvium derived from eroding mountains to the south. The Older Alluvium consists of unconsolidated sand and gravel with some interbedded silt. Terrace Deposits comprised of semi-consolidated gravelly sand and silty clay underlie the alluvium.
11. The Landfill is in a seismically active area with numerous active or potentially active faults within 30 miles. The Pinto Mountain fault is located less than one (1) mile from the Landfill. The Camp Rock-Emerson, Johnson Valley, and Homestead Valley faults, along which movement occurred during the 1992 "Landers" earthquake, are located between five (5) and 20 miles north of the Landfill.

12. On October 19, 1997, the Discharger submitted a static and dynamic slope stability analysis report for the monolithic soil cover. The report indicated the monolithic cover can tolerate accelerations from seismic events on faults 5 to 30 miles from the WMF.
13. The land within 1,000 feet north of the property boundary is designated as Rural Living, and to the east, west and south as Resource Conservation. There are no industries located within one (1) mile of the WMF; however, there are two (2) residential homes (one uninhabited) within 1,000 feet north of the site. A pistol and rifle club is located adjacent to the WMF to the west, and Twentynine Palms Airport is located within one (1) mile to the east.
14. The Discharger proposed the post-closure end use of the Landfill be non-irrigated open space.
15. The Landfill is not lined and has no leachate collection and removal system.
16. The Landfill stopped receiving waste on September 30, 1998. Two (2) feet of soil was placed on the Landfill surface as intermediate cover.
17. Approximately 1.23 million cubic yards of non-hazardous solid waste and daily cover were disposed in the Landfill. Non-hazardous solid wastes include:
  - a. Residential
  - b. Commercial
  - c. Construction demolition
18. Presently the WMF operates as a transfer station.
19. The WMF contained three (3) contiguous unlined septage drying ponds. These ponds were closed on May 28, 1998, after wastes were removed.
20. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) on November 16, 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate storm water pollution.
21. The State Water Resources Control Board (SWRCB) adopted Industrial General Permit Order 97-03-DWQ and its replacement Order 2014-0057-DWQ (NPDES No. CAS000001) specifying WDRs for discharges of storm water associated with industrial activities, including operational landfills. The Facility is operated as an active transfer station and includes on-site vehicle fueling and may need regulatory coverage under the Industrial General Permit. The Discharger needs to review and comply with applicable industrial storm water requirements of the SWRCB and may find the following link helpful [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/](http://www.waterboards.ca.gov/water_issues/programs/stormwater/).
22. Construction actions, such as road improvements at closed landfills, may be subject to the Construction General Permit Order 2009-0009-DWQ that includes amending Orders 2010-0014-DWQ and 2012-0006-DWQ (NPDES No. CAS000002). When planning such activities, the Discharger needs to review and comply with applicable construction

storm water requirements of the SWRCB and may find the following link helpful [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/](http://www.waterboards.ca.gov/water_issues/programs/stormwater/).

23. The Discharger reports that the 100-year rainfall intensity for the Landfill is 3.6 inches/hour with peak flow rate of 125.0 cubic feet per second.
24. The site is not within the 100-year flood plain.
25. Average annual evaporation and precipitation rates are 80 and 4 inches, respectively.
26. The Discharger submitted a Solid Waste Assessment Test (SWAT) report in April 1991. Five (5) point of compliance ground water monitoring wells were installed for the SWAT investigation.
27. Analyses of ground water samples collected from SWAT compliance wells TNP-5 and TNP-6 indicated the Landfill was affecting ground water quality. The highest contaminant concentrations detected from the 1991 SWAT investigation were:

<u>Parameter</u>	<u>Concentration</u> <u>µg/L</u>	<u>Maximum</u> <u>Contaminant Level</u> <u>µg/L</u>
Tetrachloroethene (PCE)	8.1	5.0
1,1,1-Trichloroethane	0.7	200.0
Trichloroethene (TCE)	0.6	5.0
Dichlorodifluoromethane	1.3	-----

28. On May 3, 1995, the Colorado River Basin Water Board received an Evidence of a Release Notification from the San Bernardino County Solid Waste Management Department stating that both statistical and non-statistical releases were identified on April 26, 1995, at the Twentynine Palms Landfill. One (1) volatile organic compound (VOC)-- 1,1,1,2-Tetrachloroethane--was detected at 2.1 µg/L. The notification indicated that a discrete retest would be performed within 30 days (by May 26, 1995) in accordance with Section 13(f)(3) of Board Order 93-071.
29. On June 26, 1995, the Colorado River Basin Water Board received the results of the constituents of concern (COC) scan conducted on ground water samples collected from the Landfill monitoring wells on May 22 and 25, 1995. The COC scan detected Tetrachloroethene in monitoring well TNP-5 and Trichloroethene in monitoring well TNP-7.
30. The Discharger submitted an Evaluation Monitoring Program (EMP) work plan on July 26, 1995. The EMP was deemed acceptable by the Colorado River Basin Water Board's Executive Officer on October 26, 1995.
31. The Colorado River Basin Water Board's Executive Officer issued Cleanup and Abatement Order (CAO) No. 95-114 on October 25, 1995, to require the implementation of the EMP and subsequent corrective action.

32. As part of the EMP, the Discharger performed the following tasks between March and October 1995:
  - a. Exploratory boring B-1 was drilled on September 18 and 19, 1995, to recover soil samples for laboratory analysis.
  - b. Two (2) additional ground water monitoring wells (TNP-8 and TNP-9) were installed. Soil samples were recovered during drilling and submitted for laboratory analysis.
  - c. Ground water sampling at the two (2) new wells was performed on November 20, 1995.
  - d. Vadose zone gas samples were recovered from former ground water monitoring wells that became dry.
33. The Discharger submitted a Preliminary Engineering Feasibility Study (EFS) on October 25, 1995. The EFS provided a detailed description of the proposed corrective action measures.
34. On July 30, 1997, the Colorado River Basin Water Board's Executive Officer issued CAO No. 97-116 revising CAO No. 95-114, which required a report of findings resulting from the EMP and a Feasibility Study for the Corrective Action Program.
35. The Discharger installed ground water monitoring well TNP-10 in January 1998 to replace monitoring well TNP-9, which showed high concentrations of acetone reportedly introduced during drilling and well construction.
36. On December 23, 1998, the Discharger submitted a report that included the EFS. The report indicated that pollutant concentrations in ground water were stable and below Maximum Contaminant Levels (MCLs).
37. The following table presents groundwater quality data and compares the historical maximum constituent of concern (COC) concentration with most recent 5-year and 10-year average constituent concentration:

<u>COC</u>	<u>Units</u>	<u>Maximum Conc.</u>	<u>5-Year Average</u>	<u>10-year Average</u>
Chloride	mg/L	375 mg/L	300mg/L	300mg/L
Nitrate-N	mg/L	6 mg/L	1.5mg/L	1.4mg/L
pH	pH units	12 units	7.5 units	7.6 units
Sulfate	mg/L	940mg/L	450mg/L	450mg/L
TDS	mg/L	1700mg/L	1400mg/L	1400mg/L
1,1 DCE	ug/L	1ug/L	0.10ug/L	0.15ug/L
1,2,DCB	ug/L	1ug/L	0.05ug/L	0.07ug/L
1,4 DCB	ug/L	0.9ug/L	0.005ug/L	0.007ug/L
Methylene Chloride	ug/L	7.2ug/L	0.25ug/L	0.20ug/L
Tetrachloro-Ethane	ug/L	8.1ug/L	0.1ug/L	0.15ug/L
Trichloro-Ethane	ug/L	1.1ug/L	0.15ug/L	0.15ug/L

38. In November 1995, the Discharger began submitting monthly status reports to the Colorado River Basin Water Board discussing EMP implementation.
39. The Discharger reports that background point of compliance wells vary due to seasonal fluctuations in ground water flow direction.
40. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), which was adopted on November 17, 1993, and amended on November 16, 2012, designates the beneficial uses of ground and surface waters in this Region.
41. The WMF is located in the Dale Hydrologic Unit.
42. The beneficial uses of ground waters in the Dale Hydrologic Unit are:
  - a. Municipal supply (MUN)
  - b. Industrial supply (IND)
  - c. Agricultural supply (AGR)
43. The Discharger submitted a Final Closure/Post Closure Maintenance Plan (FCPCMP) on November 18, 1996, and revised FCPCMP on August 19, 1997. The FCPCMP was approved by Colorado River Basin Water Board staff on March 8, 2000.
44. On October 14, 2004, the Discharger submitted a revised Final Closure/Post Closure Maintenance Plan (FCPCMP). The revised report was approved by Colorado River Basin Water Board staff in January, 2005.
45. The FCPCMP has implemented the following:

**I. CLOSURE**

- A. Final cover – the Discharger has implemented an alternative cover in accordance with Title 27. The final cover consists of, in ascending order:
  1. Foundation Layer – A minimum one (1) foot thick interim/foundation layer which has been determined to be in place by the existing cover evaluation.
  2. Monolithic layer – A two (2) foot thick infiltration control layer of select soil materials comprise the monolithic vegetative cover layer.
- B. Analysis has shown that a three (3) foot thick final cover will meet or exceed the performance criteria of the prescribed standard as detailed in Title 27. Factors that were taken into consideration in establishing the final cover design were: geometry of the existing landfill, local climate conditions (arid environment, low rainfall, high evaporation rate), potential settlement, final cover performance, erosion protection, vegetative growth, and end use.
- C. Title 27, Section 20080(b) states that approval for an alternative cover system is allowed in cases where the Discharger demonstrates that a) the construction of a prescriptive standard is not feasible as provided in subsection (c) of Section 20080, and b) there is a specified engineered alternative that is consistent with the performance goal addressed by the particular construction or prescriptive standard, and it affords protection against water quality impairment.

- D. As stipulated in Title 27 Section 20080(c), to establish that the prescriptive standard is not feasible the Discharger must demonstrate that the prescriptive standard either a) is unreasonably and unnecessarily burdensome and will cost substantially more than alternatives which meet the criteria in Section 20080(b), or b) is impractical and will not promote attainment of applicable performance standards.
- E. The Discharger states that the implemented alternative cover has cost approximately \$1.5 million dollars to construct and implement, while the prescriptive cover would cost approximately \$3 million dollars.
- F. Final cover on the top deck of the Landfill has a minimum 2.00 percent grade.
- G. Side slopes of the final cover have a maximum slope of three horizontal to one vertical (3H: 1V).
- H. Erosion of the final cover will be prevented by three (3) erosion control features:
  - i. The top deck was designed with a minimum slope of approximately 2.00 percent;
  - ii. Native grass and shrubs were planted to establish a vegetative cover;
  - iii. The 3H: 1V side slopes were drilled or manually seeded and layered with mulch;
  - iv. Settlement will be monitored by photographing the entire permitted site at the end of the closure activities and every five (5) years throughout the post-closure maintenance period.
- I. The landfill began operating in 1954. Analyses done by the Discharger indicate that significant settlement has occurred prior to closure. Maximum post closure settlement is estimated to be approximately two (2) feet for the majority of the landfill.
- J. The Discharger has installed three (3) settlement monuments. The three (3) settlement monuments were placed on the landfill, and the current survey monuments located on undisturbed ground are used as horizontal and vertical reference control points not subject to settlement. The Discharger proposes to perform an aerial photographic survey of the site with a maximum contour interval of two (2) feet. The settlement monuments were surveyed upon completion of all closure activity. The Discharger surveys the entire refuse footprint every five (5) years throughout the post closure maintenance period.
- K. Precipitation falling on the landfill deck is channeled by a deck area perimeter berm which diverts surface water flow to down drains. Surface water flow from the slopes is collected by bench drains and is directed to the down drains. Collected surface water flows are discharged to two (2) outlets located at the northeast and north edges of the landfill property. These outlets are constructed with rip-rap pads where the flows are displaced by energy dissipation to reduce erosion potential.
- L. The Discharger reports that during the 30-year post closure maintenance period, the average soil loss over the entire landfill will be approximately 0.31 inches. Any soil lost will be refilled to its design status.
- M. The groundwater/vadose zone monitoring system consists of seven (7) wells: TNP-3, TNP-4, TNP-5, TNP-6, TNP-7, TNP-8, and TNP-9. The location of the monitoring

wells are shown on Attachment C, appended to and hereby made part of this Order by reference, and are listed in the Monitoring and Reporting Program R7-2015-0019. The Discharger reports that since closure of the landfill in 2005, the groundwater monitoring indicates constituent stability and improvement of water quality. The wells are currently monitored on a semi-annual basis. Based on groundwater monitoring data collected since closure in 2005, the Discharger proposes changing the monitoring frequency from semi-annual to annual monitoring.

- N. As part of the site closure, the three (3) dual depth landfill gas monitoring probes are protected in place, and constitute the vadose zone gas monitoring system under Monitoring and Reporting Program R7-2015-0019 and six (6) multi-depth perimeter gas migration probes were installed around the perimeter of the site, as required by Title 27 of the California Code of Regulations (CCR). These probes will be monitored on an annual basis, with results reported to the Local Enforcement Agency (LEA).
- O. Land Use – The closed landfill will be designated as non-irrigated open space.

**POST CLOSURE MAINTENANCE**

- A. Inspection - Routine and periodic inspections will be conducted by the Discharger. Immediately after special events such as earthquakes, storms, and fires, a thorough and comprehensive inspection will be conducted. Additionally, the Discharger will inspect the landfill for the following:

**Inspection Period**

1. Landfill Gas Migration System Monitoring and	Annual
2. Groundwater System Monitoring and Maintenance.	Annual
3. Stormwater Monitoring.	Annual
4. Final Cover Inspection and Maintenance.	Annual
5. Settlement Monitoring and Maintenance.	Annual
6. Vegetative Cover Inspection and Maintenance.	Annual
7. Access Road Inspection and Maintenance.	Annual
8. Drainage Control System Inspection and Maintenance.	Annual
9. Site Security Inspection and Maintenance	Annual

Deficiencies, damages to, and failure of the final cover and final grades will be repaired and restored within 30 days to design conditions and in accordance with construction specifications.

- B. Settlement inspections will be done every five (5) years throughout the post-closure maintenance period. Any settlement of the cover system will be appropriately mitigated in a manner acceptable to the Colorado River Basin Water Board's Executive Officer.
- C. Drainage System – Drainage inlets and down drains will be cleared of sediments. Drainage channels and outlets will be maintained to permit free flow and sealed or repaired to maintain structural integrity of the system. Any damage will be repaired within 30 days.
- D. Ground Water Monitoring System – All groundwater monitoring wells will be

inspected for signs of failure or deterioration during each sampling event. If damage is discovered, the nature and extent of the problem will be recorded. A decision will be made to replace or repair the well. If a well needs to be replaced, it will be properly decommissioned. Damaged wells will be scheduled for repair prior to the next monitoring event.

46. The Discharger prepared an Initial Study and proposed Mitigated Negative Declaration to meet the requirements of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.). The Mitigated Negative Declaration was approved by the San Bernardino County Board of Supervisors on June 22, 1998. The water quality impacts identified during the environmental review are given below, followed by mitigation measures identified in the Mitigated Negative Declaration and addressed in this Board Order.

a. Potential impact: The project has less than significant impact to erode the soils on or off the Landfill due to any increase in wind or water.

Mitigation: Specifications 5, 10 (II), 11, 12, 13, 14, and Provisions 11, 14, and 16.

47. The Board has notified the Discharger and all known interested agencies and persons of its intent to update Waste Discharge Requirements for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

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

49. The Colorado River Basin Water Board finds that the 39-acre landfill project is in compliance with the provisions of Title 27 as well as 40 CFR Parts 257 and 258, Subtitle D.

IT IS HEREBY ORDERED, that Board Order R7-2005-0024 is rescinded, except for enforcement purposes, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the provisions contained in Title 27, and the provisions contained in 40 CFR Parts 257 and 258, the Discharger shall comply with the following:

A. Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.
2. Waste material shall be confined to the waste management facility as defined in Finding No. 3.a and described in the attached site maps.
3. The discharge shall not cause degradation of any water supply and shall not contact or percolate through wastes discharged at this site.
4. The exterior surfaces of the disposal area, including the intermediate and final landfill covers shall be graded and maintained to promote lateral runoff or precipitation and to prevent ponding.

5. The Discharger shall use the constituents listed in Monitoring and Reporting Program R7-2015-0019 and revisions thereto, as "monitoring parameters". These monitoring parameters are subject to the most appropriate statistical or non-statistical tests under Monitoring and Reporting Program R7-2015-0019, Part III, and any revised Monitoring and Reporting Program approved by the Colorado River Basin Water Board's Executive Officer.
6. The Discharger shall implement the attached Monitoring and Reporting Program R7-2015-0019 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.
7. 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 R7-2015-0019 and revisions thereto.
8. The Discharger shall follow the Water Quality Protection Standards (WQPS) for detection monitoring established by the Colorado River Basin Water Board in this Board Order pursuant to Title 27, Section 20390. The following are five (5) parts of WQPS as established by the Colorado River Basin Water Board (the terms of art used in this Board Order regarding monitoring are defined in Part I of the attached Monitoring and Reporting Program R7-2015-0019, and revisions thereto, which is hereby incorporated by reference):
  - a. The Discharger shall test for the monitoring parameters and the Constituents of Concern (COC) listed below and in the Monitoring and Reporting Program R7-2015-0019 and revisions thereto for:

**Constituents**

1. pH (units)
  2. Total Dissolved Solids
  3. Specific Conductance
  4. Temperature
  5. Chloride
  6. Sulfate
  7. Nitrate (as N)
  8. Ground Water Elevation
  9. Volatile Organic Compounds
- b. Concentration Limits - The concentration limit 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 below and in Part II. B. of the attached Monitoring and Reporting Program R7-2015-0019, and any revised Monitoring and Reporting

Program approved by the Colorado River Basin Water Board's Executive Officer. Monitoring and background monitoring points are shown below and on Attachment C:

- i. Inferred up gradient (background) monitoring wells: TNP-5, TNP-6, and TNP-9. Based on historical variable groundwater elevations, it appears there is no true background at this site.
    - ii. Inferred down gradient (point of compliance) wells: TNP-3, TNP-4, TNP-7, and TNP-8
  - d. Compliance period - The estimated duration of the post closure monitoring compliance period for this landfill is 30 years. Each time the Standard is not met (i.e. releases discovered), the Landfill begins a compliance period on the date the Colorado River Basin Water Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the Compliance Period, the Compliance period is automatically extended until the Landfill has been in continuous compliance for at least three (3) consecutive years.
9. The Discharger shall maintain an alternative final cover consisting of the following, in ascending order:
    - i. A minimum one (1) foot thick foundation layer of selected soil materials.
    - ii. A minimum two (2) foot thick infiltration control layer of selected soil materials that shall comprise the monolithic layer.
  10. The Discharger shall follow the proposed and accepted Closure/Post Closure Maintenance Plan.
  11. A thorough and comprehensive inspection shall be conducted by the Discharger at least twice a year and immediately after any special events such as earthquakes, storms, or fires.
  12. The Discharger shall within 30 days, repair and restore to design conditions, and in accordance with construction specification, any deficiencies, damages to, or failure of the final cover, final grade, side slopes, drainage system, settlement, and monitoring systems.
  13. The Discharger shall maintain at a minimum three (3) settlement monuments on the Landfill for monitoring refuse settlement at the site. The entire Landfill shall be aerially photographed at the end of the closure activities and every five (5) years throughout the post closure maintenance period.
  14. The Discharger shall remove and relocate any wastes that are discharged at this site in violation of these requirements.
  15. Water used for site maintenance shall be limited to amounts necessary for dust control.
  16. 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.

17. 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 R7-2015-0019 and revisions thereto.

B. Prohibitions

1. The discharge or deposit of any waste at this site is prohibited.
2. 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 leachate.
3. The direct discharge of any waste to any waters of the state including surface waters or surface drainage courses is prohibited.

C. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program R7-2015-0019, and future revisions thereto, as specified by the Colorado River Basin Water Board's Executive Officer.
2. 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 Colorado River Basin Water Board.
3. 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.
4. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
5. The Discharger shall allow the Colorado River Basin Water 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

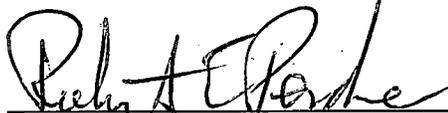
with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.

6. 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.
7. 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 the Landfill, if such waste constituents could migrate to waters of the State in either the liquid or the gaseous phase, and cause conditions of contamination or pollution.
8. 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.
9. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the California Environmental Laboratory Accreditation Program (ELAP) within the State Water Resources Control Board Division of Drinking Water. 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).
10. All regulated disposal systems shall be readily accessible for sampling and inspection.
11. 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.
12. The Discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the facility. The Discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Colorado River Basin Water Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Colorado River Basin Water Board.
13. 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 Colorado River Basin Water Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
14. 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.
15. After a significant earthquake event, the Discharger shall:
  - a. Immediately notify the Colorado River Basin Board by phone; and
  - b. Within seven (7) days submit to the Colorado River Basin Water 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.

16. The Discharger shall immediately notify the Colorado River Basin Water Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures. The Discharger shall submit to the Colorado River Basin Water Board within 14 days, a detailed report describing any physical damage to the cover, surface water diversion systems or ground water monitoring systems.
17. 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 Colorado River Basin Water 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 Colorado River Basin Board.
18. The Discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
19. The Discharger shall maintain assurances for financial responsibility for Post-Closure maintenance activities, pursuant to Title 27, CCR, section 22212, and for Corrective action activities pursuant to Title 27, CCR, section 22222.
20. The Discharger shall submit all documents including information requested by the Executive Officer, correspondence and self-monitoring and other reports electronically over the Internet into the State Water Resource Control Board's GeoTracker database. Groundwater monitoring raw data must be uploaded into GeoTracker in the correct data format and assigned to each monitoring well correlated by the monitoring well's geospatially surveyed location. Electronic submission of reports containing soil, vapor or groundwater data are required for subsurface investigation and remediation at sites in the leaking Underground Storage Tank (UST); Spills, Leaks, Investigation and Cleanup (SLJC); Department of Defense (DOD); and Land Disposal Programs, according to Chapter 30, Division 3, Title 23 of the California Code of Regulations. The GeoTracker facility identification number for the 29 Palms Landfill is L10006535144.
21. This Board Order is subject to Colorado River Basin Water Board review and updating as necessary to comply with changing State or Federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics.

I, Robert Perdue, 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 13, 2015.

Ordered by:   
ROBERT PERDUE  
Executive Officer