

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

ORDER R7-2014-0010

POST-CLOSURE MAINTENANCE AND WASTE DISCHARGE REQUIREMENTS  
FOR  
RIVERSIDE COUNTY WASTE MANAGEMENT DEPARTMENT, OWNER/OPERATOR  
EDOM HILL SANITARY LANDFILL  
CLASS III LANDFILL  
North of Cathedral City - Riverside County

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

**Discharger**

1. The Riverside County Waste Management Department (Discharger) owns and operates the Edom Hill Sanitary Landfill (Landfill).
2. The Landfill is located on property owned by Riverside County Waste Management Department, whose address is 14310 Frederick St., Moreno Valley, CA 92553. Location of the Landfill is shown on Attachments A & B.
3. The Landfill is within 420 acres in Section 26, Township 3 South, Range 5 East, San Bernardino Baseline and Meridian owned by Discharger. From the time the site opened until September 2002, the Discharger leased 640 acres from the Bureau of Land Management (BLM) for the landfill. On September 3, 2002, ownership of 420 acres of the 640 acres was transferred to the Discharger. The remaining 220 acres was never used for landfill purposes and has been retained by the BLM to be set aside as a conservation area. In addition, Discharger owns 297 acres in Section 27, used for a drainage retention basin and landfill buffer area as shown on Attachment C.

**Facility**

4. The Discharger reports that the Waste Management Facility (WMF) occupies a total area of 717 acres and the Landfill footprint is approximately 148 acres. The Landfill closed in December 2004, and closure construction was completed in February 2008.
5. A portion of the WMF (21.9 acres) is currently used for a CalRecycle permitted Transfer/Processing and Composting facility (Facility 33-AA-0296).
6. The Discharger filed a deed notification with the County Recorder on September 15, 2008. The deed notification advises any potential purchaser of the property of:
  - a. The closure construction which was done in accordance with all local, state, and federal regulations in force at the time of closure,
  - b. The boundaries, height and depth of the filled area,
  - c. The availability of the Final Closure and Post-closure Maintenance Plans for review, and
  - d. The restricted use of the site.

7. The land within a radius of 1,000 feet of the WMF is uninhabited. Adjacent land use is zoned primarily Natural Asset (NA) and W-2 (controlled development).
8. The WMF is located on the uplifted Edom Hill, a northwestern part of Indio Hills. It is within the Coachella Valley between the Transverse Ranges and the Peninsula Ranges Geomorphic Provinces. The dominant geologic structural feature of the Valley is the San Andreas Fault.
9. The Discharger reports that the south branch of the San Andreas Fault trends N71W to N61W through the southern half of the WMF. The Discharger further reports that a maximum probable earthquake of 7.0 along the south branch of the San Andreas Fault could occur.

**Definitions**

10. Definitions of terms used in this Order:

- a) Waste Management Facility (WMF) - The entire parcel of property where waste discharge operations are conducted.
- b) Waste Management Unit (WMU) - An area of land or a portion of a Waste Management Facility where waste is or was discharged. The term includes containment and ancillary features for precipitation and drainage control and monitoring.
- c) Landfill - A Waste Management Unit where waste is discharged to land. It does not include surface impoundments, waste piles, or land and soil treatment.
- d) Discharger - Any person who discharges waste that could affect the quality of the waters of the State, and includes any person who owns a Waste Management Unit or who is responsible for the operation of a Waste Management Unit (Title 27, California Code of Regulations).

**Board Orders**

11. The Landfill began accepting waste in 1967. The Landfill has been subject to Waste Discharge Requirements (WDRs) since 1970 under the following Board Orders:

<u>BOARD ORDER</u>	<u>DATE ADOPTED</u>
70-009	04/09/70
83-075	09/21/83
89-009	01/25/89
92-008	01/22/92
98-049	05/14/98
01-141	11/14/01

12. The WDRs were amended when Order 93-071, amending all Municipal Solid Waste Landfill Board Orders to comply with federal regulations, was adopted by the Colorado River Basin Water Board.

13. In 1998 the WDRs were again updated under Order 98-049 to comply with current laws and regulations as set forth in the California Water Code and the combined State Water Resources Control Board/California Integrated Waste Management Board Regulations, Division 2, Title 27 (hereinafter referred to as Title 27).

14. On May 3, 2001, the Discharger submitted a request to modify the monitoring parameters and monitoring frequencies in Order 98-049. Current Order 01-141 was adopted to include updated monitoring parameters.
15. This Board Order updates Order 01-141 to incorporate applicable closure requirements set forth in Title 27, and the closure and post closure regulations of Title 40, Code of Federal Regulations (40 CFR) Part 258. **Landfill Capacity**
16. A total of 7,323,778 tons of refuse was accepted at the Landfill. The approximate total refuse volume is 10,462,540 cubic yards.

### **Class II Surface Impoundments**

17. Three (3) liquid ponds were constructed at the WMF in 1989. The ponds were not lined and did not have a leachate collection and removal system. From 1989 to 1995, the ponds received grease trappings and chemical toilet wastes as allowed under WDRs Board Order 92-008. The three ponds received grease trappings and chemical toilet wastes until July 1, 1995. The former location of the ponds is shown on Attachment D.
18. In the Report of Waste Discharge (ROWD) submitted in 1998, the Discharger proposed to clean close the ponds, once all of the liquid has evaporated. On November 27, 2000, the Discharger performed a site investigation and found that the three (3) ponds were dry and that Pond No. One contained no residue and Pond Nos. Two and Three contained approximately three (3) inches of dry residue.
19. On April 19, 2001, the Discharger submitted a work plan for clean closure of the three liquid waste ponds.
20. On June 12, 2005, clean closure of the three liquid waste ponds was completed, and on March 21, 2006, a Clean Closure of Liquid Waste Ponds Verification Report was submitted to the Colorado River Basin Water Board.

### **Surface Water**

21. The Discharger reports that the WMF is not located in a 100-year flood plain.

### **Groundwater**

22. The Discharger reports that no springs or perched groundwater conditions are known to exist beneath the WMF. The effect of the San Andreas Fault, the deformation of the geological materials beneath the WMF due to older faulting, tilting and folding, and the variability of these materials (siltstone to conglomerate) suggest that the groundwater beneath the WMF is compartmentalized and extremely complicated.
23. The locations of the groundwater monitoring wells at the WMF are shown on Attachment D. The average groundwater level within the wells varies from 295 feet below the existing ground surface in monitoring well EH-4 (north of the San Andreas Fault) to 967 feet in EH-8 (south of the San Andreas Fault).

24. A review of the historical groundwater results, collected beginning in 1989, indicates that the total dissolved solids (TDS) concentration of groundwater beneath the WMF is generally greater than 700 mg/L and is as high as 1100 mg/L.
25. 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.
26. Edom Hill WMF is located in the Coachella Hydrologic Subunit. The beneficial uses of ground waters in the Coachella Hydrologic Subunit are:
  - a. Municipal supply (MUN)
  - b. Industrial supply (IND)
  - c. Agricultural supply (AGR)

### **Gas Monitoring System**

27. In 1988 the Discharger installed fifteen (15) single level gas probes around the perimeter of the Landfill. In August of 2006, sixteen (16) quad-level probes were drilled and installed to monitor gas from the Landfill, as shown on Attachment E. The 15 single level probes previously installed were abandoned when the quad-level probes were installed.

### **Climate**

28. The climate of the Region is arid. The average annual precipitation is approximately 5 inches and the average annual evapotranspiration rate is approximately 105 inches.

### **Other Regulatory Considerations**

29. Edom Hill WMF is not lined and does not have a leachate collection and removal system.
30. The Discharger previously proposed a vertical expansion of the WMF and on May 27, 1997, the County of Riverside Board of Supervisors approved the vertical expansion project and by Resolution No. 97-191 certified that the project's Environmental Impact Report (EIR) complies with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). In Board Order No. 98-049, the Colorado River Basin Water Board adopted findings that the project, as approved by the County of Riverside, had the following potential significant impacts on water quality:
  - a. Potential Impact: Surface water flows will be altered by the proposed project.  
  
Mitigation: Compliance with Prohibitions No. 1 and 7. Specifications No. 3, 4, and 5 and Provisions No. 2 and 6 of Board Order 98-049 would mitigate or avoid the adverse environmental impacts of the project on water quality.
  - b. Potential Impact: The proposed project could result in leachate formation that could impact ground water resources. This risk currently exists and is not incrementally increased by the project.

Mitigation: Compliance with Prohibition No. 5, Specifications No. 4, 5, 6, 7, 8, and 9, and Provisions No. 7, 9, 12 and 13 of Board Order 98-049 would mitigate or avoid the adverse environmental impacts of the project on water quality.

- c. Potential Impact: As an unlined Landfill, migrating Landfill gas (LFG) that contains volatile organic compounds can be a source of ground water pollution, if uncontrolled. This risk currently exists and is not increased by the project.

Mitigation: Compliance with Specifications No. 7 and 8, and Provisions No. 9, 12 and 13 of Board Order 98-049 would mitigate or avoid the adverse environmental impacts of the project on water quality.

## **Storm Water**

31. 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 Technology (BCT) to reduce or eliminate industrial storm water pollution.
32. The State Water Resources Control Board (SWRCB) adopted Order 97-03-DWQ (General Permit CAS000001) specifying WDRs for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered under the Permit (General Industrial Permit).
33. The Facility is not subject to the federal requirements for regulation of storm water discharges associated with industrial activities since it is not one of the industrial activities listed in 40 CFR 122.26(b)(14). Therefore, the Discharger is not required to obtain coverage under Order 97-03-DWQ (General Permit CAS000001) for the Facility.

## **Closure**

34. The Discharger submitted a Revised Final Closure/Post Closure Maintenance Plan (FC/PCMP) on March 01, 2006. Regional Board Staff conditionally approved the revised FCPCMP on October 14, 2006.
35. The final cover consists of the following:
- A. A minimum one foot thick existing layer of interim cover materials.
  - B. Monolithic layer – A two (2) foot thick layer composed of engineered soil materials.
  - C. Final cover on the top deck of the landfill has a minimum 3.00 percent grade.
  - D. Side slopes of the final cover have a maximum slope of three horizontal to one vertical (3H:1V) with benching at least 12 feet wide at least every 50 vertical feet.

- E. The Discharger reports that at least two permanent survey monuments, in accordance with Section 20950 of Title 27, are already in place on solid ground outside the landfill footprint for use in determining the location and elevation of wastes, containment structures, and monitoring facilities throughout the post-closure period.
- F. Erosion of the final cover will be prevented by the following erosion control features:
  - i. The top deck will be designed for sheet flow run-off with a minimum slope of approximately 3.00 percent;
  - ii. The final surface of the landfill slopes have been covered with green waste in order to achieve a minimum plant coverage of 5 percent, as required for optimum performance of the proposed alternative cover;
  - iii. Ten erosion control monuments have be placed at various locations on the windward side of the landfill to quickly identify areas that need repair; and
  - iv. Aggregate base has been placed on the main landfill access road to eliminate ruts from vehicles.
- G. Precipitation falling on the landfill deck will be channeled by an earthen perimeter berm into concrete and asphalt downdrains that will convey water from the top deck and benches to the natural perimeter drainage channels. Energy dissipation structures constructed of rip-rap or similar material will be placed at the downdrain outlets to prevent erosion of the natural drainage channel. Offsite runoff is diverted around the landfill via natural and lined channels.
- H. The Discharger has installed ten (10) erosion control monuments at various locations on the windward side of the landfill. These monuments will help determine any locations needing repair. Any soil lost will be replaced to maintain closure design specifications.
- I. The Discharger reports that the existing groundwater monitoring system meets the requirements of Title 27, Division 2, Chapter 3, Subchapter 3, Article 1 (commencing with Section 20380). The wells are listed in Monitoring and Reporting Program R7-2014-0010 and the locations of the wells are shown on Attachment D, appended hereto and made a part of this Order.
- J. The Discharger reports that no permanent leachate control system has been installed at the site and will not be installed as part of the final closure plan.
- K. The closed Facility will be designated as non-irrigated open space.

## **CEQA**

36. In accordance with Section 15301, Chapter 3, Division 6, Title 14 of the California Code of Regulations, the issuance of these Waste Discharge Requirements, 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 CEQA (Public Resources Code Section 21000 et seq.)

37. In 2008, an expanded landfill gas collection system was installed to mitigate fugitive landfill gas emissions. The landfill gas condensate is produced as a byproduct of the landfill gas collection system operation.

### **Financial Assurance**

38. The Discharger has submitted to the Colorado River Basin Water Board and to the California Department of Resources Recycling and Recovery evidence of Financial Assurance for Closure and Post Closure, pursuant to Sections 22207 and 22212 of Title 27.

39. The monitoring and reporting requirements in Monitoring and Reporting Program R7-2014-0010, which is incorporated herein and made a part of this Board Order by reference, are necessary to determine compliance with these WDRs. The State Water Resources Control Board's electronic database, GeoTracker Information Systems, facilitates the submittal and review of monitoring and reporting.

### **Notifications**

40. The Regional 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.

41. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

### **Clean Water Policy**

42. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

IT IS HEREBY ORDERED, that Board Order No. 01-141 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 Discharger shall comply with the following:

#### **A. Specifications**

1. Waste materials shall be confined to the existing footprint of the Waste Management Facility as described on the attached site maps.
2. The Discharger shall implement the attached Monitoring and Reporting Program R7-2014-0010, and revisions thereto, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the WMF.
3. The Discharger 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 R7-2014-0010.

4. 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 R7-2014-0010.
5. The Discharger shall follow the Water Quality Protection Standard (WQPS) for Detection Monitoring established by the Regional 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 R7-2014-0010 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 in Monitoring and Reporting Program R7-2014-0010, and revisions thereto.
  - 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 R7-2014-0010, and any revised Monitoring and Reporting Program approved by the Colorado River Basin Water Board's Executive Officer.
  - d. The Points of Compliance are shown on Attachment D and extend through the zone of saturation.
  - e. Compliance Period – The estimated duration of the Compliance Period for this Landfill is six (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 (3) consecutive years.

#### B. Prohibitions

1. The WMF has been officially closed in accordance with California Code of Regulations, Title 27. Therefore, the disposal of any additional waste at the WMF is prohibited.
2. The discharge or deposit of any solid waste at this site is prohibited.
3. The discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) to the Facility is prohibited.
4. The discharge or deposit of designated waste (as defined in Title 27) at this site is prohibited.

5. The discharge of waste to land not owned or controlled by the Discharger is prohibited.
6. The direct discharge of any waste to surface waters or surface drainage courses is prohibited.
7. 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.
8. 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 all discharge specifications, prohibitions, provisions and monitoring and reporting requirements of this Order and Monitoring and Reporting Program R7-2014-0010 and future revisions thereto, as specified by the Colorado River Basin Water Board's Executive Officer.
2. 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.
3. The Discharger shall maintain visible monuments identifying the boundary limits of the entire Waste Management Facility.
4. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Board Order.
5. The Discharger shall comply with "Monitoring and Reporting Program R7-2014-0010" and future revisions thereto, as specified by the Colorado River Basin Water Board's Executive Officer.
6. 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.
7. The Discharger shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed by the Discharger to achieve compliance with the Waste Discharge Requirements.
8. 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.

9. The Colorado River Basin Water Board considers the property owner to have a continuing responsibility for correcting any problems that may arise in the future as a result of this waste discharge.
10. The Discharger shall neither cause nor contribute to the concentration of pollution of groundwater via the release of waste constituents in either liquid or gaseous phase.
11. 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 WMF 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.
12. The Discharger shall within 48 hours of a significant earthquake event, 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.
13. 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.
14. 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.
15. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
16. 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.
17. The Discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.
18. 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.

17. The Discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.
18. 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.
19. The Discharger shall maintain assurances of financial responsibility for Post-Closure maintenance activities in accordance with Section 22212 of Title 27.
20. The Preliminary and Final Closure and Post-closure Maintenance Plan (PCPMP) shall satisfy all requirements of Title 27 as specified by the Colorado River Basin Water Board's Executive Officer. The post-closure maintenance period shall be at least thirty (30) years. However, the post-closure maintenance period shall extend as long as the waste poses a threat to water quality.
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 changes in the discharge characteristics.
22. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Executive Officer, proposing modifications to the Monitoring and Reporting Program. The Discharger shall implement any monitoring changes in the revised Monitoring and Reporting Program approved by the Executive Officer upon receipt of a signed copy of the revised Monitoring and Reporting Program.

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 January 16, 2014.

  
Executive Officer