

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-201X-XXXX

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF TULARE
FOR
OPERATION AND CORRECTIVE ACTION
TEAPOT DOME MUNICIPAL SOLID WASTE LANDFILL
TULARE COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. The County of Tulare (hereinafter Discharger) owns and operates the Teapot Dome Municipal Solid Waste Landfill (facility) located in Section 18, T22S, R27E, MDB&M, at the intersection of Road 208 and Avenue 128, about four miles southwest of Porterville, as shown in Attachment A, which is incorporated herein and made part of this Order by reference. The facility is bounded on the east and south by the Friant-Kern Canal. The facility is a municipal solid waste (MSW) landfill regulated under authority given in the Water Code, section 13000 et seq.; California Code of Regulations, title 27, section 20005 et seq. (Title 27); and Code of Federal Regulations, title 40 section 258 (Subtitle D) in accordance with State Water Resources Control Board (State Water Board) Resolution 93-62.
2. The facility consists of one unlined landfill covering 71 acres. The existing permitted landfill area is shown in Attachment B, which is incorporated herein and made part of this Order by reference. The facility is comprised of Assessor's Parcel Numbers (APN) 302-130-01 and 302-130-02. The facility originally started as a burn dump in 1950 and was converted to a landfill in the early 1970's.
3. The Discharger submitted an amended Report of Waste Discharge (ROWD) to establish a corrective action program (CAP) for the landfill. The information in the ROWD has been used in revising these waste discharge requirements (WDRs). The ROWD contains the applicable information required in Title 27.

On 11 July 2003, the Central Valley Water Board issued Order No. R5-2003-0015 in which the landfill waste management unit at the facility was classified as a Class III unit for the discharge of non-hazardous waste, municipal solid waste. This Order continues to classify the landfill unit as a Class III unit in accordance with Title 27. The existing and future landfill units authorized by this Order are described as follows:

<u>Area</u>	<u>Liner/LCRS¹ Components</u>	<u>Unit Classification & Status</u>
71 acres	unlined, no LCRS	Class III, active

¹ LCRS – Leachate Collection and Removal System

4. On-site facilities at the Teapot Dome Municipal Solid Waste Landfill include an active landfill gas extraction system and a landfill gas flare.
5. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated federal MSW regulations under the Resource Conservation and Recovery Act (RCRA), Subtitle D. These regulations are under 40 Code of Federal Regulations section 258, and are hereafter referred to as either "Subtitle D" in reference to the RCRA federal law that required the regulations or "40 C.F.R. section 258.XX". These regulations apply to all California Class II and Class III landfills that accept MSW. State Water Board Resolution 93-62 requires the Central Valley Water Board to implement in WDRs for MSW landfills the applicable provisions of the federal MSW regulations that are necessary to protect water quality, and in particular the containment provisions and the provisions that are either more stringent or that do not exist in Title 27.
6. This Order implements the applicable regulations for discharges of solid waste to land through Prohibitions, Specifications, Provisions, and monitoring and reporting requirements. Prohibitions, Specifications, and Provisions are listed in Sections A through I of these WDRs below, and in the Standard Provisions and Reporting Requirements for Nonhazardous Solid Waste Discharge regulated by Subtitle D and/or Title 27 (SPRRs) dated January 2012. Monitoring and reporting requirements are included in the Monitoring and Reporting Program (MRP) No. R5-201X-XXXX and in the SPRRs. In general, requirements that are either in regulation or otherwise apply to all MSW landfills are considered to be "standard" and are therefore in the SPRRs. Any site-specific changes to a requirement in the SPRRs are included in the applicable section (A through I) of these WDRs, and the requirement in the WDRs supersedes the requirement in the SPRRs.
7. Title 27 contains regulatory standards for discharges of solid waste promulgated by the State Water Board and the California Department of Resources Recovery and Recycling (CalRecycle). In certain instances, this Order cites CalRecycle regulatory sections. Title 27, section 20012 allows the Central Valley Water Board to cite CalRecycle regulations from Title 27 where necessary to protect water quality provided it does not duplicate or conflict with actions taken by the Local Enforcement Agency in charge of implementing CalRecycle's regulations.

WASTE CLASSIFICATION AND UNIT CLASSIFICATION

8. The Discharger proposes to continue to discharge municipal solid waste to one unlined Class III landfill unit at the facility. These classified wastes may be discharged only in accordance with Title 27, Resolution 93-62, and Subtitle D as required by this Order.
9. The active unlined landfill unit at the facility is an "existing unit" under Title 27, as it was permitted before 27 November 1984, and may continue to accept waste in the "Existing Footprint" until ready for closure unless waste receipts do not meet the timeframes and amounts in Title 27, section 21110, or they are required to close sooner to address environmental impacts or other regulatory concerns. The "Existing Footprint" as defined

in Title 27, section 20164 is the area that was covered by waste as of the date that the landfill unit became subject to Subtitle D. The Existing Footprint for the active unlined areas of the landfill is shown on Attachment B.

10. Title 27, section 20690 allows the use of alternative daily cover (ADC) at MSW landfills upon approval by the Local Enforcement Agency (LEA) and concurrence from CalRecycle. Title 27, section 20705 provides the Water Board's regulations for all daily and intermediate cover including that it shall minimize the percolation of liquids through waste and that the cover shall consist of materials that meet the landfill unit classification (Class III). The regulations also require that for non-composite lined portions of the landfill, that any contaminants in the daily or intermediate cover are mobilized only at concentrations that would not adversely affect beneficial uses of waters of the state in the event of a release. For composite-lined portions of the landfill, the regulations require that constituents and breakdown products in the cover material are listed in the water quality protection standard.
11. The Discharger uses a fabrene membrane tarp or a 2.0 mil Enviro Cover plastic film as an ADC. These ADCs were approved by CalRecycle and the LEA prior to May 2005.
12. Landfills propose new ADC materials regularly in order to preserve landfill air space and to beneficially reuse waste materials. Title 27, section 20686 includes regulations for beneficial reuse, including use of ADC. Approval of ADC is primarily handled by the LEA and CalRecycle under Title 27, section 20690. This Order allows any ADC proposed for use at the facility after the adoption of this Order to be approved by Central Valley Water Board staff provided the Discharger has demonstrated it meets the requirements in Title 27, section 20705. The approved ADC materials should then be listed in the facility's WDRs during the next regular update or revision with information about the Discharger's demonstration. This Order also includes a requirement that ADC only be used in internal areas of the landfill unless the Discharger demonstrates that runoff from the particular ADC is not a threat to surface water quality. The demonstration can take sedimentation basins into account.

SITE DESCRIPTION

13. The facility is located on relatively flat terrain.
14. Land uses within one mile of the facility include agriculture and individual residences.
15. There are approximately 45 municipal, domestic, industrial, or agricultural groundwater supply wells within one mile of the facility.
16. The facility is located upon the westward dipping, eastern limb of the asymmetrical geosynclinal trough of the San Joaquin Valley. The facility overlies a basement complex of pre-Tertiary age metasediments, plutonics, and ultramafics. Sequentially overlying the basement complex are approximately 1,000 to 3,500 feet of consolidated and unconsolidated Tertiary marine deposits, continental deposits, and unconsolidated

Quaternary alluvium. The Quaternary age continental deposits and the older and younger alluviums are of significance to the site. The continental deposits are late Pliocene to early Pleistocene in age and consist of poorly permeable, oxidized sandy-silt and clay. Recent older alluvium overlies the continental deposits and consists of interbedded gravel, sand, silty-sand, and clay. The younger alluvium consists of moderately to highly permeable, interbedded fluvial deposits of gravelly-sand, silty-sand, silt, and clay.

17. The measured hydraulic conductivity of the native soils underlying the landfill unit ranges between 1×10^{-4} and 1.7×10^{-3} centimeters per second (cm/s).
18. Based on a site-specific seismic analysis, the controlling maximum probable earthquake (MPE) for the site is a moment of magnitude 6.7 event along the Coalinga Nose Fault at a closest rupture distance of 74 miles from the site. It is estimated that a MPE event would produce a peak ground acceleration of 0.03 g at the site.
19. The facility receives an average of 11.0 inches of precipitation per year as measured at the Porterville Station. The mean pan evaporation is 80.8 inches per year as measured at the Tulare Station.
20. The 100-year, 24-hour precipitation event for the facility is estimated to be 3.42 inches, based on the National Oceanic and Atmospheric Administration Atlas 14, Volume 6.
21. The waste management facility is not within a 100-year flood plain based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, Community-Panel Number 06107C1640E.
22. Storm water evaporation/percolation basins are located northwest of the landfill as shown on Attachment B. The storm water percolation/evaporation basins capture runoff from the facility and retain it on-site.

SURFACE WATER AND GROUNDWATER CONDITIONS

23. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
24. Surface drainage is toward the Tule River in the Tule Delta Hydrologic Area (558.20) of the Tulare Lake Hydrologic Basin.
25. The facility is in Detailed Analysis Unit (DAU) 243 of the Tulare Lake Basin Plan. The designated beneficial uses of the groundwater, as specified in the Basin Plan are municipal and domestic water supply, agricultural supply, industrial service supply, industrial process supply, and wildlife habitat.
26. Based upon the most recent monitoring report (1st Semiannual 2013), the first encountered groundwater ranges from about 75 feet to 98 feet below the native ground surface. Groundwater elevations range from about 278 feet MSL to 314 feet MSL. Three

groundwater zones have been identified beneath the facility. The uppermost zone is unconfined and extends vertically from the water table to about 110 feet below ground surface (bgs). This unconfined aquifer is underlain by a 40-foot thick leaky confining layer. Below the confining layer are the upper and lower semi-confined aquifers. The upper semi-confined aquifer extends below the confining layer to approximately 310 feet bgs. The lower semi-confined aquifer is located directly below the upper semi-confined aquifer and extends to over 400 feet bgs.

27. Monitoring data from the most recent monitoring report (1st Semiannual 2013) indicate background groundwater quality for first encountered groundwater has electrical conductivity (EC) ranging between 260 and 1,300 micromhos/cm, with total dissolved solids (TDS) ranging between 200 and 790 milligrams per liter (mg/L).
28. The direction of groundwater flow in the unconfined groundwater zone is generally toward the southwest and the direction of groundwater flow in the upper semi-confined zone is generally to the west. The estimated average groundwater gradient is approximately 0.007 feet per foot in the unconfined zone and 0.004 feet per foot in the upper semi-confined zone.
29. The facility is in Detailed Analysis Unit (DAU) 243 of the Tulare Lake Basin Plan. The designated beneficial uses of the groundwater, as specified in the Basin Plan are municipal and domestic water supply, agricultural supply, industrial service supply, industrial process supply, and wildlife habitat.

GROUNDWATER AND UNSATURATED ZONE MONITORING

30. The existing groundwater monitoring network for the facility consists of 29 wells (26 on-site and 3 off-site), some of which are seasonally dry. Background monitoring wells consist of M-1A, M-1B, M-1C, M-1S, M-5, M-13A, M-13B, and M-13C. Unconfined groundwater zone monitoring wells consist of M-1A, M-1S, M-2A, M-3A, M-4A, M-5, M-6, M-7, M-8, M-9, M-10A, M-11A, M-12A, M-13A, and M-14A. Upper semi-confined zone monitoring wells consist of M-1B, M-1C, M-3B, M-3C, M-4B, M-10B, M-10C, M-11C, M-13B, M-13C, M-14B, M-15C, and M-16B. There are no monitoring wells in the lower semi-confined zone. The following monitoring wells are also considered corrective action monitoring wells: M-3A, M-3B, M-3C, M-10A, M-10B, M-10C, M-11C, M-15C, and M-16B.
31. Previously, the Discharger conducted semiannual soil-pore gas monitoring from the unsaturated zone wells. Samples were analyzed for methane and volatile organic compounds (VOCs). Since: 1) it is infeasible to install soil-pore liquid sampling devices beneath the closed Unit; 2) the final cover over the Unit and an LFG extraction system will minimize the LFG migration of VOC constituents to groundwater; and 3) a corrective action monitoring program is in operation for VOCs, unsaturated zone detection monitoring is infeasible and unnecessary for the early detection of a release.
32. The Discharger's detection monitoring program for groundwater at the landfill satisfies the requirements contained in Title 27.

33. Volatile organic compounds (VOCs) are often detected in a release from a MSW landfill and are often associated with releases of landfill gas rather than leachate. Since volatile organic compounds are not naturally occurring and thus have no background value, they are not amenable to the statistical analysis procedures contained in Title 27 for the determination of a release of wastes from a landfill unit. Title 27, sections 20415(e)(8) and (9) allows the use of a non-statistical evaluation of monitoring data that will provide the best assurance of the earliest possible detection of a release from a landfill unit in accordance with Title 27, sections 20415(b)(1)(B)2.-4. However, Title 27 does not specify a specific method for non-statistical evaluation of monitoring data.
34. The Central Valley Water Board may specify a non-statistical data analysis method pursuant to Title 27, section 20080(a)(1). Water Code section 13360(a)(1) allows the Central Valley Water Board to specify requirements to protect groundwater or surface waters from leakage from a solid waste site, which includes a method to provide the best assurance of determining the earliest possible detection of a release.
35. In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a landfill unit, the SPRRs specify a non-statistical method for the evaluation of monitoring data for non-naturally occurring compounds. The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a release of non-naturally occurring waste constituents from a landfill unit. The presence of two non-naturally occurring waste constituents above their respective method detection limit (MDL), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL) [a.k.a, laboratory reporting limit (RL)], indicates that a release of waste from a Unit has occurred. Following an indication of a release, verification testing must be conducted to determine whether there has been a release from the landfill unit or the detection was a false detection. The detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.
36. For a naturally occurring constituent of concern, the Title 27 requires concentration limits for each constituent of concern be determined as follows:
 - a. By calculation in accordance with a statistical method pursuant to Title 27, section 20415(e)(8); or
 - b. By an alternate statistical method meeting the requirements of Title 27, section 20415(e)(8)(E).
37. The Discharger submitted a Water Quality Protection Standard (WQPS) report proposing statistical data analysis methods to calculate concentration limits for each monitored constituent in accordance with Title 27. The WQPS report proposed to use Interwell data

analysis to calculate prediction limits for the monitored constituents. The WQPS and approved data evaluation methods are included in MRP No. R5-201X-XXXX.

GROUNDWATER DEGRADATION AND CORRECTIVE ACTION

38. Detection monitoring of the first encountered groundwater zone has detected numerous VOCs along the Point of Compliance. The VOCs detected in groundwater at the Point of Compliance include: vinyl chloride; methylene chloride; tetrachloroethylene (PCE); 1,2-dichloroethylene (1,2-DCE); trichloroethylene (TCE); 1,2-dichloroethane (1,2-DCA); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); 1,1-dichloroethane (1,1-DCA); chloroethane; 1,1,1-trichloroethane (1,1,1-TCA); 1,4-dichlorobenzene (1,4-DCB); 1,3-dichlorobenzene; bis(2-ethylhexyl) phthalate; di-n-butyl phthalate; chloroform; chlorobenzene; methyl chloride; xylenes; benzene; toluene; cis-1, 2- dichloroethylene; 1,1- dichloroethylene; dibromochloropropane (DBCP); chlorodifluoromethane (CFC-22); dichlorofluormethane (CFC-21); diethylether; 1,1-difluoroethane; methyl tert-butyl ether (MTBE); acetone; bromodichloromethane; methyl bromide; chloroprene; trans-1,2-DCE; 1,2-dichloropropane; vinyl acetate; and ethylbenzene. None of the VOCs detected during the First Semiannual 2013 monitoring period exceeded their respective Primary Maximum Contaminant Level (MCL).
39. Inorganic waste constituents (barium, cobalt, manganese, calcium, potassium, and bicarbonate) have previously been detected at concentrations that appeared to statistically exceed their respective background levels in groundwater samples. Statistical analyses of the monitoring results for groundwater samples collected and analyzed during the First Semi-Annual 2013 monitoring period indicate that arsenic; chromium; cobalt; and manganese statistically exceeded their respective background concentration limits in one or more detection monitoring wells. None of these constituents were detected at levels exceeding their respective Primary MCLs. However, manganese was detected at a level exceeding its Secondary MCL (SMCL).
40. Waste Discharge Requirements Order R5-2003-0115 directed the Discharger to complete an evaluation monitoring program (EMP) to adequately delineate the extent of the release and to characterize the release. The results of detection and evaluation monitoring indicate that the organic compound nature of the release consists predominantly of chlorinated volatile organic compounds including: PCE; TCE; cis-1,2-DCE; 1,1-DCE; 1,1-DCA; chloroethane; vinyl chloride; CFC-11; CFC-12; and CFC-22.
41. Trihalomethanes (chloroform; chloromethane; bromodichloromethane; dibromochloromethane; and iodomethane) were found in upgradient background wells and were determined to have originated from sources other than the Unit. The City of Porterville discharged sewage sludge and effluent from the City's waste water treatment plant to the property immediately east and hydraulically upgradient of the landfill and was identified as the source for the trihalomethanes. Discharge to the property ceased in June 2002. Dibromochloropropane was determined to be part of a regional plume and not from the Unit.

42. The final EMP report delineated the extent of impacted groundwater with a concentration of total chlorinated VOCs exceeding 1 µg/L and the magnitude of contamination near the Unit. The Discharger determined that the lateral extent of the VOC plume in the unconfined zone extended approximately 1.7 miles southwest of the point of compliance and approximately 1.1 miles west of the point of compliance. The lateral extent of the VOC plume in the upper semi-confined zone extended approximately 2.0 miles southwest of the point of compliance and approximately 1.1 miles west of the point of compliance. Sampling of the lower semi-confined zone was conducted using private off-site wells and chlorinated VOCs were detected in approximately one-third of the samples. It was determined that the VOC plume extends into some of the wells in the lower semi-confined zone. The lateral extent of the VOC plume in this zone was estimated to extend 1.4 miles to the southwest. Based on statistical analysis, the EMP determined that the plume of inorganic constituents (barium, cobalt, manganese, calcium, potassium, and bicarbonate) did not appear to extend laterally west of the facility boundary.
43. Following completion of the EMP, the Discharger submitted an Engineering Feasibility Study (EFS) for corrective action. Several other updated feasibility studies were subsequently submitted. Central Valley Water Board staff approved the final EFS to establish a corrective action program (CAP) on 6 September 2006.
44. Data in the EFS suggested that groundwater elevations along the eastern edge of the Unit were potentially affected by infiltration from the effluent from the City of Porterville's waste water treatment plant. Until June 2002, the City of Porterville discharged sewage sludge and effluent from the wastewater treatment plant to the property immediately east and hydraulically upgradient of the landfill. Subsequent to the EFS, Central Valley Water Board staff required that the Discharger submit a report verifying that the five-foot separation of groundwater from the base of the waste, as required by section 20240(c) of Title 27, was being maintained. It was determined that a portion of the buried waste had been historically impacted by groundwater but that the required groundwater-waste separation had been maintained since the first quarter of 2003.
45. The Discharger submitted a Groundwater-Waste Separation Mitigation Plan (GWSM Plan), which after subsequent addendums, was approved by Central Valley Water Board staff on 26 February 2008. The GWSM Plan established a groundwater elevation trigger of 340 feet MSL and identified proactive mitigation measures to be implemented in the event that groundwater levels exceed the trigger in monitoring wells M-1A, M-1S, or M-9.
46. Due to the low-levels and decreasing trend in VOCs, monitored natural attenuation (MNA) was approved as a CAP measure in lieu of a pump and treat system. This approval was conditioned on the requirement that the sum of total chlorinated VOCs, excluding trihalomethanes and dibromochloropropane, does not exceed 10 µg/L for two consecutive monitoring periods. The CAP also included the following measures: mitigation of groundwater-waste separation, destruction of the existing water supply well to prevent the ongoing downward movements of waste constituents by eliminating a vertical conduit between the unconfined zone and the upper semi-confined zone, MNA of chlorinated VOCs downgradient of the Unit, performance monitoring of affected downgradient water

supply wells, constructing a new landfill operations water supply well in a location within the plume and pumping the new operations well for use at the site. Water from the new supply well is not treated for use as dust control over the existing waste footprint because the chlorinated VOC concentrations are low (less than 10 micrograms per liter). However, any other use of the water requires treatment.

LANDFILL CLOSURE

47. The Discharger submitted a June 2010 *Preliminary Closure and Postclosure Maintenance Plan* for closure and post-closure maintenance of the unlined landfill unit at the facility.

LANDFILL POST-CLOSURE MAINTENANCE

48. The Discharger submitted a June 2010 *Preliminary Closure and Postclosure Maintenance Plan* for closure and post-closure maintenance of the unlined unit. The plan includes inspection, maintenance, and monitoring of the landfill during the post-closure maintenance period, and includes a post-closure maintenance cost estimate for the entire facility. Inspection and maintenance will include the condition of the final cover, drainage features, groundwater monitoring wells, access roads, landfill gas system, groundwater corrective action system, and site security. The plan will be implemented for a minimum period of 30 years or until the waste no longer poses a threat to environmental quality, whichever is greater.

FINANCIAL ASSURANCES

49. Title 27, sections 21820 and 22206 require a cost estimate for landfill closure. The cost estimate must be equal to the cost of closing the landfill at the point in its active life when the extent and manner of operation would make closure the most expensive. When closing units in phases, the estimate may account for closing only the maximum area or unit of a landfill open at any time. The lump sum estimate is for the cost to close largest future area needing closure at any one time. The total amount of the closure cost estimate in 2013 dollars is \$2.43 million. This Order requires that the Discharger maintain financial assurance with the California Department of Resources Recycling and Recovery (CalRecycle) in at least the amount of the closure cost estimate. As of 2013, the balance of the closure fund was \$2.43 million.
50. Title 27, sections 21840 and 22211 requires a cost estimate for landfill post-closure maintenance. The amount of the cost estimate for post-closure maintenance in 2013 dollars is \$4.56 million. This Order requires that the Discharger maintain financial assurance with CalRecycle in at least the amount of the post-closure maintenance cost estimate adjusted annually for inflation. As of 2013, the balance of the post-closure maintenance fund was \$3.95 million.
51. Title 27, section 22221 requires a cost estimate for corrective action of all known or reasonably foreseeable releases. The Discharger submitted a 22 August 2013 cost estimate of \$0.69 million for corrective action of all known or reasonably foreseeable

releases. This Order requires that the Discharger maintain financial assurance with CalRecycle in at least the amount of the cost estimate adjusted annually for inflation. As of 2013, the balance of the corrective action fund was \$0.69 million.

CEQA AND OTHER CONSIDERATIONS

52. The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resource Code section 21000, et seq., and the CEQA guidelines, in accordance with California Code of Regulations, title 14, section 15301.
53. This order implements:
- a. *The Water Quality Control Plan for the Tulare Lake Basin, Second Edition*;
 - b. The prescriptive standards and performance goals of California Code of Regulations, title 27, section 20005 et seq., effective 18 July 1997, and subsequent revisions;
 - c. State Water Board Resolution 93-62, *Policy for Regulation of Discharges of Municipal Solid Waste*, adopted 17 June 1993, and revised on 21 July 2005.
 - d. The applicable provisions of Subtitle D federal regulations as required by State Water Board Resolution 93-62.
54. Based on the threat and complexity of the discharge, the facility is determined to be classified 1B as defined below: (choose one of each)
- a. Category 1 threat to water quality, defined as, "Those discharges of waste that could cause the long-term loss of a designated beneficial use of the receiving water. Examples of long-term loss of a beneficial use include the loss of drinking water supply, the closure of an area used for water contact recreation, or the posting of an area used for spawning or growth of aquatic resources, including shellfish and migratory fish."
 - b. Category B complexity, defined as, "Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units."
55. Water Code section 13267(b) provides that: "In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharge or discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of having discharged or discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including

costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

56. The technical reports required by this Order and the attached "Monitoring and Reporting Program No. R5-201X-XXXX" are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

PROCEDURAL REQUIREMENTS

57. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.

58. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

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

IT IS HEREBY ORDERED, pursuant to California Water Code sections 13263 and 13267, that Order No. R5-2003-0115 is rescinded except for purposes of enforcement, and that the County of Tulare, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of 'hazardous waste' or 'designated waste' is prohibited. For the purposes of this Order, the term 'hazardous waste' is as defined in California Code of Regulations, title 23, section 2510 et seq., and 'designated waste' is as defined in Title 27.
2. The Discharger shall comply with all Standard Prohibitions listed in Section C of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27 (SPRRs) dated January 2012, which are attached hereto and made part of this Order by reference.

B. DISCHARGE SPECIFICATIONS

1. The Discharger shall only discharge the wastes listed or allowed under the Waste Classification and Unit Classification section in the Findings of this Order.

2. The Discharger may not use any material as alternative daily cover (ADC) that is not listed as approved ADC in the Findings of these WDRs unless and until the Discharger has demonstrated it meets the requirements in Title 27, section 20705, and the Discharger has received approval that it may begin using the material as ADC.
3. The Discharger shall use approved ADC only in internal areas of the landfill that do not drain outside of the limits of the contiguous landfill units unless the Discharger demonstrates that runoff from the particular ADC is not a threat to surface water quality and the demonstration has been approved. This demonstration may take removal of sediment or suspended solids into account for landfills where surface water drains to a sedimentation basin.
4. The Discharger shall, in a timely manner, remove and relocate any wastes discharged at this facility in violation of this Order. If the Discharger is unable to remove and relocate the waste, the Discharger shall submit a report to the Central Valley Water Board explaining how the discharge occurred, why the waste cannot be removed, and any updates to the waste acceptance program necessary to prevent re-occurrence. If the waste is a hazardous waste, the Discharger shall immediately notify the Department of Toxic Substances Control.
5. The Discharger shall comply with all Standard Discharge Specifications listed in Section D of the SPRRs.

C. FACILITY SPECIFICATIONS

1. The Discharger shall comply with all Standard Facility Specifications listed in Section E of the SPRRs.

D. CONSTRUCTION SPECIFICATIONS

1. The Discharger shall comply with all Standard Construction Specifications listed in Section F of the SPRRs.
2. The Discharger shall comply with all Storm Water Provisions listed in Section L of the SPRRs.

E. CLOSURE AND POST-CLOSURE MAINTENANCE SPECIFICATIONS

1. The Discharger shall submit a final or partial final closure and post-closure maintenance plan at least two years prior to proposed closure of any portion of the landfill in accordance with requirements in Section G of the Standard Closure and Post-Closure Specifications in the SPRRs.
2. The Discharger shall obtain revised WDRs prior to closure.

3. The Discharger shall comply with all Standard Closure and Post-Closure Specifications listed in Section G and all Standard Construction Specifications that are applicable to closure in Section F of the SPRRs.

F. FINANCIAL ASSURANCE SPECIFICATIONS

1. The Discharger shall obtain and maintain assurances of financial responsibility with CalRecycle for closure and post-closure maintenance for the landfill in at least the amounts described in Findings 49 and 50, adjusted for inflation annually. A report regarding financial assurances for closure and post-closure maintenance shall be submitted to the Central Valley Water Board by **1 October of each year**. This may be the same report that is submitted to CalRecycle for this purpose. If CalRecycle determines that either the amount of coverage or the mechanism is inadequate, then within 90 days of notification, the Discharger shall submit an acceptable mechanism to CalRecycle and the Central Valley Water Board for at least the amount of the approved cost estimate.
2. The Discharger shall update the preliminary closure and post-closure maintenance plan (PCPCMP) any time there is a change that will increase the amount of the closure and/or post-closure maintenance cost estimate. The updated PCPCMP shall be submitted to the Central Valley Water Board, the Local Enforcement Agency, and CalRecycle. The PCPCMP shall meet the requirements of Title 27, section 21769(b), and include a lump sum estimate of the cost of carrying out all actions necessary to close each Unit, to prepare detailed design specifications, to develop the final closure and post-closure maintenance plan, and to carry out the first thirty years of post-closure maintenance. Reports regarding financial assurance required in F.1 above shall reflect the updated cost estimate.
3. The Discharger shall obtain and maintain assurances of financial responsibility with CalRecycle for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill in at least the amount of the annual inflation-adjusted cost estimate described in Finding 51. A report regarding financial assurances for corrective action shall be submitted to the Central Valley Water Board by **1 October of each year**. This may be the same report that is submitted to CalRecycle for this purpose. If CalRecycle determines that either the amount of coverage or the mechanism is inadequate, then within 90 days of notification, the Discharger shall submit an acceptable mechanism to CalRecycle and the Central Valley Water Board for at least the amount of the approved cost estimate.
4. The Discharger shall comply with all Standard Financial Assurance Specifications listed in Section H of the SPRRs.

G. MONITORING SPECIFICATIONS

1. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone, and in accordance with Monitoring and Reporting Program (MRP) No. R5-201 X-XXXX and the Standard Monitoring Specifications listed in Section I of the SPRRs.
2. The Discharger shall, for any landfill unit in a corrective action monitoring program, comply with the corrective action monitoring program provisions of Title 27, MRP No. R5-201 X-XXXX and the Standard Monitoring Specifications listed in Section I of SPRRs.
3. The Discharger shall comply with the Water Quality Protection Standard as specified in this Order, MRP No. R5-201 X-XXXX and the SPRRs.
4. The concentrations of the constituents of concern in waters passing the Point of Compliance (defined pursuant to Title 27, section 20164 as a vertical surface located at the hydraulically downgradient limit of the landfill unit that extends through the uppermost aquifer underlying the unit) shall not exceed the concentration limits established pursuant to MRP No. R5-201X-XXXX.
5. For each monitoring event, the Discharger shall determine whether the landfill is in compliance with the Water Quality Protection Standard using procedures specified in MRP No. R5-201X-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs.
6. The Discharger shall comply with all Standard Monitoring Specifications and Response to a Release specifications listed in Sections I and J of the SPRRs.

H. CORRECTIVE ACTION SPECIFICATIONS

1. **By 15 June 2015**, the Discharger shall submit a CAP evaluation report that determines whether monitored natural attenuation is effective in reducing VOC concentrations in both the off-site wells and the point of compliance wells and should continue, or whether alternative/additional corrective action methods should be utilized.
2. **By 15 September 2015**, if the CAP evaluation report determines that natural attenuation is unsuccessful in remediating VOCs in groundwater (see Corrective Action Specification H.1), the Discharger shall submit an amended RWD for Executive Officer approval to make appropriate changes to the EFS for a CAP that includes a detailed work plan for the use of alternative/additional corrective action methods.
3. The Discharger shall sample the wells listed in the EFS on a semiannual basis for VOCs. The semiannual sampling results shall be reported and discussed in semi-annual monitoring reports. Sample collection and analysis shall coincide with Groundwater Detection Monitoring A.1 of MRP R5-201X-XXXX.

4. Corrective action measures may be terminated when the Discharger demonstrates to the satisfaction of the Executive Officer that the concentrations of VOCs are reduced to levels below their respective concentration limits throughout the entire zone affected by the release.
5. After suspending the corrective action measures, the Discharger shall demonstrate that the concentration of each VOCs in each sample from each monitoring point remained at or below its concentration limit for at least three consecutive years, beginning immediately after the suspension of corrective action measures.
6. Upon completion of corrective action, the Discharger shall certify, in writing, that corrective action has been completed in compliance with Title 27 and the WDRs. The certification shall be signed by a California Registered Civil Engineer or Professional Geologist.
7. If at any time, either the Discharger or the Executive Officer determines that natural attenuation is unsuccessful in remediating VOCs in groundwater, the Discharger shall, **within 90 days of making the determination, or of receiving written notification from the Executive Officer of such determination**, submit an amended RWD for Executive Officer approval, to make appropriate changes to the EFS for a CAP that includes a detailed work plan for the use of other alternative/additional correction action methods to remediate VOCs.

At a minimum, a determination that the CAP is unsuccessful in remediating VOCs may result if one of the following conditions is met:

- a. Waste constituent concentrations in Point of Compliance groundwater monitoring wells exhibit an increasing trend not originally predicted after implementation of corrective action; or
- b. Point of Compliance groundwater monitoring wells exhibit significant waste constituent concentration increases indicative of a new or renewed release; or
- c. Significant waste constituent concentrations are identified in the monitored off-site wells; or
- d. Waste constituent concentrations are not decreasing at a sufficient rate to meet the remediation objectives.

The amended RWD shall include the following:

- a. A discussion as to why existing corrective action measures have been ineffective or insufficient.
- b. A revised evaluation monitoring plan if necessary to further assess the nature and extent of the release.

- c. A discussion of corrective action needs and alternatives.
 - d. Proposed alternative corrective action measures, as necessary, for:
 - 1) Source control, and/or
 - 2) Groundwater cleanup.
 - e. A plan to monitor the progress of corrective action measures consistent with MRP R5-201X-XXXX.
8. **Within one year** of Executive Officer approval of the amended RWD to make appropriate modifications to the EFS for the CAP or propose an alternate CAP, the Discharger shall implement the modified CAP or the proposed CAP to remediate VOCs.

I. PROVISIONS

The Discharger shall maintain a copy of this Order at the facility, including MRP No. R5-201X-XXXX and the SPRRs, and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.

- 7. The Discharger shall comply with all applicable provisions of Title 27 and Subtitle D that are not specifically referred to in this Order.
- 8. The Discharger shall comply with MRP No. R5-201X-XXXX, which is incorporated into and made part of this Order by reference.
- 9. The Discharger shall comply with the applicable portions of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27, dated January 2012, which are attached hereto and made part of this Order by reference.
- 10. If there is any conflicting or contradictory language between the WDRs, the MRP, or the SPRRs, then language in the WDRs shall supersede either the MRP or the SPRRs, and language in the MRP shall supersede the SPRRs.
- 11. All reports required by this Order shall be submitted pursuant to Water Code section 13267.
- 12. The Discharger shall complete the tasks contained in these waste discharge requirements in accordance with the following time schedule:

Task

Compliance Date

A. Corrective Action

1. Submit a CAP evaluation report that determines whether monitored natural attenuation is effective in reducing VOC concentrations in both the off-site wells and the point of compliance wells and should continue, or whether corrective action methods should be utilized. (see Corrective Action Specification H.1) **By 15 June 2015**

2. If the CAP evaluation report determines that natural attenuation is unsuccessful in remediating VOCs in groundwater (see Corrective Action Specification H.1), the Discharger shall submit an amended RWD for Executive Officer approval to make appropriate changes to the EFS for a CAP that includes a detailed work plan for the use of other corrective action methods. (see Corrective Action Specification H.2) **By 15 September 2015**

3. Submit an amended RWD for Executive Officer approval, to make appropriate changes to the EFS for a CAP and/or propose alternative correction action methods to remediate VOCs, if it is determined by either the Discharger or the Executive Officer, that natural attenuation corrective action methods are unsuccessful. (see Corrective Action Specification H.7) **Within 90 days of making a determination or of receiving written notification of such a determination**

4. Implement the modified CAP or alternative CAP to remediate VOCs. (see Corrective Action Specification H.8) **Within one year of Executive Officer approval of the amended RWD to make appropriate changes to the EFS for a CAP**

B. Financial Assurance Review

1. Annual Review of Financial Assurance for closure and post-closure maintenance. (see Financial Assurance Specification F.1) **By 1 October of each year**

2. Annual Review of Financial Assurance for initiating and completing corrective action. (see Financial Assurance Specification F.3) **By 1 October of each year**

13. The Discharger shall comply with all General Provisions listed in Section K of the SPRRs.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

PAMELA C. CREEDON, Executive Officer

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