

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2018-XXXX

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF MODOC
ALTURAS CLASS III MUNICIPAL SOLID WASTE LANDFILL
OPERATION
MODOC COUNTY

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

1. The County of Modoc (Discharger) owns and operates the Alturas Class III Municipal Solid Waste Landfill (Facility or Alturas Class III Landfill) about two miles southwest of Alturas, in Sections 22 and 23, T42N, R12E, MDB&M, as shown in Attachment A. The Facility is a municipal solid waste (“MSW”) landfill regulated under authority given in Water Code section 13000 et seq.; and California Code of Regulations, title 27 (“Title 27”), section 20005 et seq. in accordance with State Water Resources Control Board (State Water Board) Resolution 93-62.
2. The Facility is on a 162-acre property at the intersection of North West Street and Westside Road, southwest of Alturas, designated as Assessor’s Parcel Numbers (“APN”) 022-130-40 and 022-130-44. Existing landfill area occupies approximately 28 acres. Waste was placed in six unlined waste management units (“WMUs”). A site map for the Facility, included as “Attachment B” is incorporated herein. .
3. The following documents are attached to this Order and hereby incorporated into and made a part of this Order by reference:
 - a. Attachment A – Site Location Map;
 - b. Attachment B – Site Plan;
 - c. Information Sheet; and
 - d. Standard Provisions and Reporting Requirements (“SPRRs”), dated December 2015.
4. On 15 December 1999, the Discharger submitted an amended Report of Waste Discharge (“ROWD”) as part of the Joint Technical Document (“JTD”) for the landfill. The information in the ROWD/JTD has been used in updating these waste discharge requirements (“WDRs”). The ROWD contains the applicable information required in Title 27. The ROWD/JTD and supporting documents contain information related to this update of the WDRs.
5. On 14 June 2001, the Central Valley Water Board issued Order No. 05-01-174 in which the four landfill WMUs at the Facility were classified as “Class III” units for the discharge of non-hazardous waste and MSW. This Order continues to classify the landfill units as “Class III” units in accordance with Title 27.

6. The existing units authorized by this Order are described as follows:

<u>Unit</u>	<u>Area</u>	<u>Liner/LCRS¹ Components</u>	<u>Unit Classification & Status</u>
Unit A	7 acres	Unlined, no LCRS	Class III, inactive ²
Unit B	15 acres	Unlined, no LCRS	Class III, active
Unit C	2.5 acres	Unlined, no LCRS	Class III, inactive
Dead Animal Unit	<1 acre	Unlined, no LCRS	Unclassified, active
Woodash/Metal Unit	2 acres	Unlined, no LCRS	Class III, inactive
Septage Ponds	<1 acre	Unlined, no LCRS	Unclassified, active

¹ "LCRS" – Leachate collection and removal system

² Inactive units have been covered with an interim soil cover until Facility closure.

7. On-site facilities at the Alturas Class III Landfill include: groundwater monitoring wells, public drop-off locations and a transfer station. The transfer station became operational in March 1995 and MSW currently is transported to a landfill near Reno, Nevada unless transportation is not possible due to weather or other unforeseen emergencies. The Discharger plans to operate the Facility for emergency backup disposal until 2047, or until Facility storage capacity is reached.
8. 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 H of these WDRs below, and in the SPRRs. Monitoring and reporting requirements are included in the Monitoring and Reporting Program ("MRP") R5-2018-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 H) of these WDRs, and the requirement in the WDRs supersedes the requirement in the SPRRs.
9. 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-promulgated regulations. 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 ("LEA") in charge of implementing CalRecycle's regulations.

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WASTE CLASSIFICATION AND UNIT CLASSIFICATION

10. The Discharger proposes to continue to discharge waste into the three active units at the Facility. Unit B receives inert construction and demolition waste, green waste and nonhazardous solid waste year-round (on an irregular basis by appointment), and MSW (on an emergency-only basis). The “Dead Animal Unit” receives dead animal carcasses. The “Septage Ponds” receive dewatered sludge from septage and toilet vault wastes. These wastes may be discharged only in accordance with Title 27 and Resolution 93-62 as required by this Order.
11. The Facility has three “Class III” WMUs that are inactive (“Unit A”, “Unit C”, and “Woodash/Metal Unit”). Unit A has been inactive since 1985, Unit C has been inactive since in 1976, and the Woodash/Metal Unit has been inactive since 1989.
12. Active landfill units at the Facility are “existing units” under Title 27 that were 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. The Existing Footprint for the active areas of the Facility is shown on Attachment B.
13. Title 27, section 20690 allows the use of alternative daily cover (“ADC”) at MSW landfills upon approval by the 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). At the time of issuance of this Order, no ADC materials have been approved.
14. 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

15. Topography at the site of the Facility ranges from approximately 4,380 to 4,450 feet above mean sea level (“MSL”) and consists of gently sloping ridges and hills. The Facility generally slopes to the east toward the Pit River. No springs have been observed at the Facility, or within one mile of the perimeter of the Facility.

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16. Land uses within one mile of the Facility include agricultural fields, open space, and federal game refuge to the north, south, east and west. Within the Facility footprint, the Modoc County Sheriff's Department uses an outbuilding to store equipment and vehicles. The outbuilding is locked and located approximately 200 feet to the northeast of Unit A. The nearest residence is located approximately 1/2 mile east of the Facility.
17. There are 39 municipal, domestic, industrial, or agricultural groundwater supply wells that have been identified within one mile of Facility.
18. The Facility is primarily underlain by volcanic deposits belonging to the Warm Springs Tuff member of the Alturas Formation. These deposits include loose, unconsolidated clayey sands, gravels, tuffs, and breccias. A thin layer of soil (one to two feet thick) exists over the Facility. The tuffs and breccias are workable with heavy equipment and contain the waste disposal trenches. Field observations indicate permeability is relatively high and influenced locally by cracks and fissures.
19. The measured hydraulic conductivity of the native soils underlying the landfill units ranges between 5×10^{-5} and 1×10^{-4} centimeters per second ("cm/s").
20. The controlling maximum probable earthquake ("MPE") for the Facility is a moment of magnitude 6.5 event along the Fitzhugh Creek Fault at a closest rupture distance of six miles from the Facility. It is estimated that a MPE event would produce a peak ground acceleration of 0.3g at the Facility with a return period of 475 years.
21. The Facility receives an annual average of 12 inches of precipitation as rainfall and 17 inches as snowfall, as measured at the KAAT Station in Alturas, California. The mean pan evaporation is approximately 51 inches per year as measured at the TLKC Station in Tulelake, California.
22. The 100-year, 24-hour precipitation event for the Facility is estimated to be 3.5 inches, based on precipitation features published by the National Oceanic and Atmospheric Administration ("NOAA") in *NOAA Atlas 2, Volume XI, Isopluvials of 100-Year 24-Hour Precipitation for Northern Half of California in Tenths of an Inch*.
23. The 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 06049C1483F.
24. Storm water sedimentation basins are located along the western perimeter, separating Unit C from the Septage Ponds, as shown on Attachment B. The basins detain storm water for sedimentation control during the rainy season and are normally dry during the summer months. The sedimentation basins typically do not discharge, but may discharge to the Pit River.

SURFACE WATER AND GROUNDWATER CONDITIONS

25. The *Water Quality Control Plan for Sacramento and San Joaquin River Basins, Fourth Edition* ("Basin Plan"), designates beneficial uses, establishes water quality objectives ("WQOs"), and contains implementation plans and policies for all waters of the Basin.

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26. Surface water drainage from the Facility is to the Pit River in the Upper Pit River Hydrologic Area of the Sacramento River Hydrologic Region.
27. The designated beneficial uses of the Pit River as specified in the Basin Plan, are: municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; wildlife habitat; spawning, reproduction, and/or early development.
28. The first encountered groundwater ranges from about four feet to 31 feet below the native ground surface. Groundwater elevations range from about 4,348 feet MSL to 4,356 feet MSL. The principal water-bearing formations in the Alturas Groundwater Basin are lava flows and the Alturas Formation, which contains both confined and unconfined aquifers.
29. Monitoring data indicate background groundwater quality for first encountered groundwater has electrical conductivity ("EC") ranging between 400 and 5,000 micromhos/cm, with total dissolved solids ("TDS") ranging between 200 and 3,000 milligrams per liter ("mg/L").
30. The direction of groundwater flow is generally toward the northwest. The direction of groundwater flow varies seasonally and periodically flows toward the north and northeast. The estimated average groundwater gradient varies from approximately 0.002 to 0.004 feet per foot.
31. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal water supply, agricultural supply, industrial service supply, and industrial process supply.

GROUNDWATER AND UNSATURATED ZONE MONITORING

32. The existing groundwater monitoring network for the Facility's WMUs consists of background monitoring wells OB-5 and OB-6, and detection monitoring wells OB-1 through OB-4 and OB-7. Wells OB-1 through OB-5 were installed in April 1987 into three different geologic formations. Wells OB-1 and OB-5 are screened in volcanic deposits of the Warm Springs Tuff Formation, wells OB-3 and OB-4 are screened in silt and clay deposits of the Alturas Formation, and OB-2 is screened in sand and gravel deposits of intermediate alluvium. Monitoring wells OB-6 and OB-7 were installed in September 2000 into a geologic formation suspected of being similar to the formation monitored by well OB-2. Monitoring well OB-6 was installed off-site on Modoc National Wildlife Refuge property north of the Facility to provide background water quality data. Total depths of the wells range from 15 to 56.5 feet below ground surface.
33. At the time this Order was adopted, the Discharger's detection monitoring program ("DMP") for groundwater at the Facility does not satisfy the requirements contained in Title 27. The current DMP does not have a complete Water Quality Protection Standard ("WQPS). (Cal. Code Regs., tit. 27, §20390.) Concentration limits have not been established and the Facility does not have a written statistical procedure for evaluating the groundwater data as specified in MRP No. R5-2018-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs. Provision 7 requires submittal of an updated WQPS Report.

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34. No unsaturated zone monitoring system exists at the Facility. Title 27, section 20415, subdivision (d)(5) requires unsaturated zone monitoring for all new Units. However, no new WMUs or lateral expansions are planned at the Facility.
35. 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 VOCs 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, section 20415, subdivisions (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, section 20415, subdivisions (b)(1)(B)2.-4. However, Title 27 does not specify a specific method for non-statistical evaluation of monitoring data.
36. The Central Valley Water Board may specify a non-statistical data analysis method pursuant to Title 27, section 20080, subdivision (a)(1). Water Code section 13360, subdivision (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.
37. 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.
38. For a naturally occurring constituent of concern (“COC”), Title 27 requires concentration limits for each COC be determined as follows:
 - a. By calculation in accordance with a statistical method pursuant to Title 27, section 20415, subdivision (e)(8)(A-D); or
 - b. By an alternate statistical method meeting the requirements of Title 27, section 20415, subdivision (e)(8)(E).
39. The Discharger has not submitted a WQPS Report proposing statistical data analysis methods to calculate concentration limits for each monitored constituent in accordance with Title 27. Provision 7 requires submittal of an updated WQPS Report that includes this content.

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GROUNDWATER CONDITIONS

40. Natural variations in water quality have been documented in wells drilled at and near the Facility. For example, TDS can range from about 200 to over 3,000 mg/L. While spatial and seasonal variability exists, trend analysis of Facility monitoring wells has not indicated any increases in monitoring parameters. Groundwater conditions at the Facility have historically shown no indications of a release from any of the WMUs. There have been no indications of leachate influence in groundwater around the Facility.
41. Until 2017, VOCs had not been detected at the Facility since the late 1990s and were infrequently encountered at that time. In the First Half 2017 Groundwater Monitoring Report, the Discharger indicated that low concentrations of gasoline-related VOCs were detected in monitoring wells OB-3 and OB-7, including ethylbenzene, toluene and xylenes. A single semi-volatile organic compound ("SVOC") was also detected in well OB-7 [bis(2-ethylhexyl) phthalate]. A resampling of all Facility monitoring wells in October 2017 did not detect VOCs or SVOCs, suggesting that these detections were a result of laboratory contamination.

LINER PERFORMANCE DEMONSTRATION

42. On 15 September 2000, the Central Valley Water Board adopted Resolution No. 5-00-213 *Request For The State Water Resources Control Board To Review The Adequacy Of The Prescriptive Design Requirements For Landfill Waste Containment Systems To Meet The Performance Standards Of Title 27*. The State Water Board responded, in part, that "a single composite liner system continues to be an adequate minimum standard" however, the Central Valley Water Board "should require a more stringent design in a case where it determines that the minimum design will not provide adequate protection to a given body of groundwater."

In a letter dated 17 April 2001, the Executive Officer notified Owners and Operators of Solid Waste Landfills that "the Board will require a demonstration that any proposed landfill liner system to be constructed after 1 January 2002 will comply with Title 27 performance standards. A thorough evaluation of site-specific factors and cost/benefit analysis of single, double, and triple composite liners will likely be necessary."

43. The Facility's WMUs are unlined and predate the requirements set forth under Title 27, section 20080, subdivision (d) established in 1984. The Discharger has not proposed expansion beyond the existing footprint. Any such expansion proposed in the future must be done in accordance with Title 27 and Resolution 93-62, as required by Facility Specifications and Construction Specifications contained in this Order.

CONSTRUCTION AND ENGINEERED ALTERNATIVE

44. On 17 June 1993, the State Water Board adopted Resolution 93-62 implementing a State Policy for the construction, monitoring, and operation of MSW landfills that is consistent with the federal MSW regulations promulgated under 40 Code of Federal Regulations section 258 (a.k.a, Subtitle D). Resolution 93-62 requires the construction of a specified composite liner system at new MSW landfills, or expansion areas of existing MSW landfills, that receive wastes after 9 October 1993. Resolution 93-62 also allows the Central Valley Water Board to consider the approval of engineered alternatives to the prescriptive standard. Section III.A.b. of Resolution

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93-62 requires that the engineered alternative liner systems be of a composite design similar to the prescriptive standard.

45. Title 27, section 20080, subdivision (b) allows the Central Valley Water Board to consider the approval of an engineered alternative to the prescriptive standard. In order to approve an engineered alternative in accordance with Title 27, section 20080, subdivision (c)(1) or (2), the Discharger must demonstrate that the prescriptive design is unreasonably and unnecessarily burdensome and will cost substantially more than an alternative which will meet the criteria contained in Title 27, section 20080, subdivision (b), or would be impractical and would not promote attainment of applicable performance standards. The Discharger must also demonstrate that the proposed engineered alternative liner system is consistent with the performance goal addressed by the particular prescriptive standard, and provides protection against water quality impairment equivalent to the prescriptive standard in accordance with Title 27, section 20080, subdivision (b)(2).
46. Water Code section 13360, subdivision (a)(1) allows the Central Valley Water Board to specify the design, type of construction, and/or particular manner in which compliance must be met in WDRs or orders for the discharge of waste at solid waste disposal facilities.
47. The Discharger has not proposed expansion beyond the existing footprint. Any such expansion proposed in the future must be done in accordance with Title 27 and Resolution 93-62, as required by the Facility Specifications and Construction Specifications contained in this Order.
48. Closure construction will include placement of a final cover over the six WMUs (Units A, B, and C; Wood Ash/Metal Unit; Dead Animal Unit; and Septage Ponds). The final cover design will be provided with the Final Closure Plan, which shall be submitted for review and approval at least two years prior to actual closure.
49. The 15 December 1999 ROWD does not include a stability analysis for the Facility pursuant to Title 27, section 21750, subdivision (f)(5) because the WMUs pre-date this requirement.

LANDFILL CLOSURE

50. Title 27, section 21090 provides the minimum prescriptive final cover components for landfills consisting of, in ascending order, the following layers:
 - a. Two-foot soil foundation layer.
 - b. One-foot soil low flow-hydraulic conductivity layer, less than 1×10^{-6} cm/s or equal to the hydraulic conductivity of any bottom liner system.
 - c. Geomembrane layer (this layer is required for composite-lined landfills for equivalency to bottom liner).
 - d. One-foot soil erosion resistant/vegetative layer.
51. Title 27 allows engineered alternative final covers provided the alternative design will provide a correspondingly low flow-through rate throughout the post-closure maintenance period.
52. The Discharger has submitted a 15 December 1999 ROWD which included provisions for preliminary closure and post-closure maintenance of the WMUs at the Facility. The Discharger

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plans to operate the Facility for emergency backup disposal until approximately 2047, or until Facility storage capacity is reached. Unit A, Unit C, and the Woodash/Metal Unit stopped receiving waste in 1985, 1976, and 1989, respectively, and have been covered with an interim soil cover until Facility closure. The interim cover consists of one foot of native soils excavated from borrow areas within the Facility. Unit B still receives inert construction and demolition waste, and green waste, and may receive emergency non-hazardous waste or MSW in the event that waste transfer to an off-site landfill is not possible.

53. The Discharger proposes a prescriptive final cover for the unlined landfill units consisting of, in ascending order, the following layers:
 - a. Two-foot soil foundation layer.
 - b. One-foot soil compacted clay soil layer with less than 1×10^{-6} cm/s hydraulic conductivity.
 - c. One-foot soil erosion resistant soil layer, with vegetation.
54. Side slopes for the closed landfill will be sloped at a maximum of 3H:1V, and will include 15-foot wide benches every 50 vertical feet as required by Title 27.
55. A slope stability analysis for the proposed final cover has not been performed. The Standard Closure and Post-Closure Specifications in the SPRRs identify the stability analysis requirements for the final cover.
56. Pursuant to Title 27, section 21090, subdivision (e)(1), this Order requires a survey of the final cover following closure activities for later comparison with iso-settlement surveys required to be conducted every five years.
57. This Order approves the proposed final cover and requires that a final closure and post-closure maintenance plan, design documents, and construction quality assurance ("CQA") plan be submitted for review and approval at least two years prior to actual closure.

LANDFILL POST-CLOSURE MAINTENANCE

58. The Discharger's 15 December 1999 ROWD includes the *Preliminary Closure and Post Closure Maintenance Plan* ("PCPCMP"). The plan includes inspection, maintenance, and monitoring of the Facility 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 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.
59. Once every five years during the post-closure maintenance period, aerial photographic maps of the closed landfill area will be made to identify and evaluate landfill settlement. Iso-settlement maps will be prepared to determine the amount of differential settlement occurring over the previous five years. Pursuant to Title 27, section 21090, subdivision (e)(2), this Order requires iso-settlement maps to be prepared and submitted every five years.
60. The completed final cover will be periodically tested for damage or defects by monitoring surface emissions pursuant to California Code of Regulations, title 17, section 95471, subdivision (c)

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and Title 27, section 21090, subdivision (a)(4)(A). Defects will be repaired and tested for adequacy based on the closure CQA Plan.

FINANCIAL ASSURANCES

61. 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 Discharger's 15 December 1999 ROWD includes a PCPCMP with a cost estimate for landfill closure. The lump sum estimate is for the cost to close the largest future area needing closure at any one time. The total amount of the closure cost estimate in 1999 dollars is \$1,061,900. This Order requires that the Discharger maintain financial assurance with CalRecycle in at least the amount of the closure cost estimate. As of 2014, the lump sum estimate was \$1,696,198, while the balance of the closure fund was \$536,760. This closure fund is an enterprise fund, which is contributed to on a yearly basis. On each anniversary of the establishment of the fund, the minimum fund balance is increased. Based on current landfill capacity and the projected closure date, the balance within the closure fund is adequate.
62. Title 27, sections 21840 and 22211 require a cost estimate for landfill post-closure maintenance. The Discharger's 15 December 1999 PCPCMP includes a cost estimate for landfill post-closure maintenance. The amount of the cost estimate for post-closure maintenance in 1999 dollars is \$471,000. 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 2014, the balance of the post-closure maintenance fund was \$1,153,927.
63. Title 27, section 22221 requires a cost estimate for corrective action of all known or reasonably foreseeable releases. The Discharger submitted a 27 November 2001 cost estimate of \$799,784 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 2014, the balance of the corrective action fund was \$905,182.
64. Title 27, section 22100, subdivision (b) requires owners and operators of disposal facilities that are required to be permitted as solid waste landfills to provide cost estimates for initiating and completing corrective action for known or reasonably foreseeable releases of waste. Title 27, section 22101 requires submittal of a *Water Release Corrective Action Estimate* and a *Non-Water Release Corrective Action Cost Estimate*. The *Water Release Corrective Action Estimate* is for scenarios where there is statistically significant evidence of a release of waste to ground or surface water when comparing point-of-compliance analyte concentrations to background concentrations. The *Non-Water Release Corrective Action Cost Estimate* is for complete replacement of the landfill final cover system, however a site-specific corrective action plan pursuant to Title 27, section 22101, subdivision (b)(2) may be provided in lieu of the final cover replacement cost estimate. Title 27, section 22221 requires establishment of financial assurances in the amount of an approved *Water Release Corrective Action Estimate* or an approved *Non-Water Release Corrective Action Cost Estimate*, whichever is greater.

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CEQA AND OTHER CONSIDERATIONS

65. The action to revise WDRs 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 Title 14, section 15301.
66. This Order implements:
- The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition;*
 - The prescriptive standards and performance goals of California Code of Regulations, title 27, section 20005 et seq., effective 18 July 1997, and subsequent revisions; and
 - 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.
67. Based on the threat and complexity of the discharge, the Facility is determined to be classified 2-B as defined below:
- Category 2 threat to water quality, defined as, "Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of WQOs, cause secondary drinking water standards to be violated, or cause a nuisance."
 - 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."
68. The *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, SWRCB Order WQ 68-16 (hereinafter "Anti-Degradation Policy") was adopted by the State Water Board in October 1968. Anti-Degradation Policy limits the Board's discretion to authorize the degradation of "high-quality waters." This policy has been incorporated into the Board's Basin Plans. "High-quality waters" are defined as those waters where water quality is more than sufficient to support beneficial uses designated in the Board's Basin Plan. Whether or not a water is a high-quality water is established on a constituent-by-constituent basis, which means that an aquifer can be considered a high-quality water with respect to one constituent, but not for others. (SWRCB Order No. WQ 91-10.)
69. Anti-Degradation Policy applies when an activity discharges to high quality waters and will result in some degradation of such high quality waters. When it applies, the Policy requires that WDRs reflect best practicable treatment or control ("BPTC") of wastes and that any degradation of high quality waters (a) will be consistent with the maximum benefit to the people of the State, and (b) will not result in an exceedance of WQOs. If the activity will not result in the degradation of high quality waters, Anti-Degradation Policy does not apply, and the Discharger need only demonstrate that it will use "best efforts" to control the discharge of waste.
70. Anti-Degradation Policy does apply to the discharge of waste to the Alturas Class III Landfill due to the presence of unlined WMUs at the Facility. The requirements of this Order are designed to ensure that any such wastes remain contained at the Facility and will not reach waters of the

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State. The requirements of this Order reflect the Discharger's best efforts to control such wastes. Confirmed detections of VOCs have not occurred since the late 1990s and leachate effects have not been observed in groundwater beneath the Facility. The potential for release of waste constituents is expected to continue to decrease over time. Compliance with this Order, the attached SPRRs, and MRP R5-2018-XXXX represent BPTC of the discharge of waste to waters of the State. Therefore, the Facility complies with the Anti-Degradation Policy.

71. Any degradation that may result from the Facility's discharges to waters of the State would be consistent with the maximum benefit to the people of the State. Avoiding or preventing such degradation would require unearthing and re-engineering the facility at significant expense to the County. From a water quality standpoint, implementing the BPTC measures required under this Order is a more effective use of the Discharger's limited resources.
72. Water Code section 13267, subdivision (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 proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes 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.
73. The technical reports required by this Order and the attached MRP R5-2018-XXXX are necessary to assure compliance with these WDRs. The Discharger owns and operates the Facility that discharges the waste subject to this Order. Typical annual costs of the Facility monitoring program range from \$11,000 to \$16,000 and are commensurate with similar programs at other landfills throughout the state. The Central Valley Water Board finds that, given the necessity of obtaining accurate and up to date information to inform management of this Facility's discharges, these costs bear a reasonable relationship to the benefit and need for the reports required by the MRP.

PROCEDURAL REQUIREMENTS

74. 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 Facility for the discharges of waste to land stated herein.
75. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
76. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
77. 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

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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 that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final 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.

IT IS HEREBY ORDERED, pursuant to California Water Code sections 13263 and 13267, that Order No. 05-01-174 is rescinded except for purposes of enforcement, and that the County of Modoc, 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 cessation of any corrective action measure is prohibited without written Executive Officer approval. If routine maintenance or a breakdown results in cessation of corrective action for greater than 24 hours, the Discharger shall notify Board staff. At the time of issuance of this Order, no corrective action measures were in place.
3. The Discharger shall comply with all Standard Prohibitions listed in Section C of the SPRRs.

B. DISCHARGE SPECIFICATIONS

1. The Discharger shall only discharge the wastes including inert construction and demolition waste, green waste, dead animal carcasses, and septage. The Discharger shall only discharge MSW during emergency conditions when the waste cannot be transported to an off-site landfill.

WASTE ACCEPTANCE BY LANDFILL UNITS						
Title 27 Waste Type	Unit A	Unit B	Unit C	Woodash/Metal Unit	Dead Animal Unit	Septage Ponds
MSW	No	Yes ²	No	No	No	No
Inert (e.g., concrete, cured asphalt, brick)	No	Yes	No	No	No	No

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Title 27 Waste Type	Unit A	Unit B	Unit C	Woodash/Metal Unit	Dead Animal Unit	Septage Ponds
Green waste	No	Yes	No	No	No	No
Liquid septage and toilet vault wastes	No	No	No	No	No	Yes
Special Wastes ¹	No	No	No	No	Yes	No

1. Special wastes as defined by Title 27 (e.g. triple-rinse pesticide containers, tires, large dead animals, medical wastes, Incinerator ash, and agricultural wastes)
2. MSW discharged under emergency conditions only

2. The Discharger may not use any material as ADC until the Discharger has demonstrated it meets the requirements in Title 27, section 20705, and the Discharger has received written 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 in writing. 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 not construct any expansion beyond the existing footprint until the Discharger has submitted a ROWD, received revised WDRs, and all design reports, plans, and specifications and applicable CQA plans have been approved by the Executive Officer.
2. The Discharger shall comply with all Standard Construction Specifications listed in Section F of the SPRRs.

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3. 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 close landfill units with a final cover as proposed in the 15 December 1999 PCPCMP and as approved by this Order. The components of the approved final cover as proposed in the PCPCMP are listed in Finding 53.
3. The Discharger shall obtain revised WDRs prior to closure with any other final cover design than the design or designs approved in this Order, except when modifications are necessary for problematic areas of the final cover needing repair so long as the barrier layer (e.g., compacted clay layer) remains intact, and the modifications are approved by Central Valley Water Board staff.
4. The Discharger shall close the landfill with side slopes at steepness of 3H:1V or less, and top deck areas shall be sloped at three percent or greater.
5. The Discharger shall ensure that the vegetative/erosion resistant layer receives necessary seed, binder, and nutrients to establish the vegetation proposed in the final closure plan. The Discharger shall install necessary erosion and sedimentation controls to prevent erosion and sediment in runoff from the closed landfill during the period the vegetation is being established.
6. 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 Facility in at least the amounts of \$1,696,198 and \$1,153,927, respectively, 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 June 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 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 LEA, and CalRecycle. The PCPCMP shall meet the requirements of Title 27, section 21769, subdivision (b), and include a lump sum estimate of the cost of carrying out all actions necessary to close each WMU, to prepare detailed design specifications, to develop the final closure and post-closure

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maintenance plan, and to carry out the first 30 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 Facility in at least the amount of the annual inflation-adjusted cost estimate of \$905,182. A report regarding financial assurances for corrective action shall be submitted to the Central Valley Water Board by **1 June 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 DMP provisions of Title 27 for groundwater and leachate seeps, and in accordance with MRP R5-2018-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 R5-2018-XXXX, and the Standard Monitoring Specifications listed in Section I of SPRRs.
3. The Discharger shall comply with the WQPS as specified in this Order, MRP R5-2018-XXXX, and the SPRRs.
4. The concentrations of the COCs 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 R5-2018-XXXX.
5. For each monitoring event, the Discharger shall determine whether the Facility is in compliance with the WQPS using procedures specified in MRP R5-2018-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs.
6. As specified in MRP R5-2018-XXXX, the Discharger shall enter all reports and monitoring data into the online GeoTracker database as required by Division 3 of Title 27 and Chapter 30, Division 3 of Title 23.
7. The Discharger shall comply with all Standard Monitoring Specifications and Response to a Release specifications listed in Sections I and J of the SPRRs.

PERMITS

H. PROVISIONS

1. The Discharger shall maintain a copy of this Order at the Facility, including MRP R5-2018-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.
2. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.
3. The Discharger shall comply with MRP R5-2018-XXXX, which is incorporated into and made part of this Order by reference.
4. 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 Title 27.
5. 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.
6. All reports required by this Order shall be submitted pursuant to Water Code section 13267, and shall be prepared by a California-registered Civil Engineer or Certified Engineering Geologist.
7. The Discharger shall complete the tasks contained in these WDRs in accordance with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
A. Water Quality Protection Standard Report	
Submit an updated WQPS Report for review and approval, pursuant to Title 27, subchapter 3, article 1.	1 February 2019
B. Financial Assurances	
1. Submit an updated cost estimate for final closure and post-closure of the Facility	30 June 2018
2. Submit an updated cost estimate for initiating and completing corrective actions associated with known or reasonably foreseeable releases from the Facility	30 June 2018
3. Submit an annual review of Financial Assurance for final closure and post-closure maintenance.	1 June (annually)
4. Submit an annual review of Financial Assurance for initiating and completing corrective action.	1 June (annually)

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<p>C. Final Closure Plans</p> <p>Submit a final or partial final closure and post-closure maintenance plan, design plans, and CQA plan for review and approval (see all Closure and Post-Closure Specifications in Section E, above and Section G of the SPRRs).</p>	<p>Two years prior to closure</p>
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8. The Discharger shall comply with all General Provisions listed in Section K of the SPRRs.
9. The Central Valley Water Board has converted to a paperless office system. All project correspondence and reports required under this Order shall therefore be submitted electronically rather than in paper form, as follows:

All technical reports and monitoring reports required under this Order shall be converted to PDF and uploaded via internet to the State Water Board's GeoTracker database at <http://geotracker.waterboards.ca.gov>, as specified in California Code of Regulations, title 23, section 3892, subdivision (d) and section 3893. Project-associated analytical data shall be similarly uploaded to the GeoTracker database in an appropriate format specified under this Order under a site-specific global identification number. Information on the GeoTracker database is provided at:

http://www.swrcb.ca.gov/ust/electronic_submittal/index.shtm

Notification of the GeoTracker upload shall be emailed to the Central Valley Water Board at: centralvalleyredding@waterboards.ca.gov. To ensure that the submittal is routed to the appropriate staff as quickly as possible, the following information shall be included in the body of the email:

Attention:	Title 27 Compliance & Enforcement Unit Or Title 27 Permitting Unit
Report Title	
GeoTracker Upload ID	
Discharger name:	County of Modoc
Facility name:	Alturas Class III Landfill
County:	Modoc
CIWQS place ID:	205323

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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