

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-201X-XXXX

WASTE DISCHARGE REQUIREMENTS  
FOR  
OROVILLE LANDFILL PROPERTIES, OROVILLE LANDFILL PROPERTIES LLC,  
JACK M. STEEBLES LLC, CAROL ANN SEIDENGLANZ LLC,  
AND STEVEN CONN SEIDENGLANZ LLC  
FOR  
CLEAN-CLOSURE OF  
OROVILLE LANDFILL PROPERTIES CLASS III WOOD WASTE LANDFILL  
BUTTE COUNTY

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

1. Oroville Landfill Properties, Oroville Landfill Properties LLC, Jack M. Steebles LLC, Carol Ann Seidenglanz LLC, and Steven Conn Seidenglanz LLC (hereafter "Discharger") own a Class III landfill located about three miles south of Oroville, in the southwest  $\frac{1}{4}$  of Section 29 and the southeast  $\frac{1}{4}$  of Section 30, T19N, R4E, MDB&M, as shown in Attachment A, which is incorporated herein and made part of this Order by reference. The facility is an industrial 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.
2. The facility is comprised of Assessor Parcel Numbers (APNs) 078-100-015 (45.09 acres), 078-100-046 (38.86 acres), and 078-090-014 (20.71 acres). APNs 078-100-047 and 035-470-012 were also included as being part of the facility in previous waste discharge requirements. However, the Discharger has shown that no waste disposal activities occurred on the latter two parcels, so they have been removed from the requirements in this Order.
3. APNs 078-100-015 and 078-090-014 are owned by Oroville Landfill Properties, Jack M. Steebles LLC, Carol Ann Seidenglanz LLC, and Steven Conn Seidenglanz LLC. APN 078-100-046 is owned by Oroville Landfill Properties LLC, Jack M. Steebles LLC, Carol Ann Seidenglanz LLC, and Steven Conn Seidenglanz LLC.
4. The Discharger purchased the site in September 2002. The previous owner, Louisiana-Pacific Corporation, discharged wood wastes to Units 1 and 2, and ash from a wood-fired cogeneration facility to Unit 4. Unit 3 was sited, but never received waste. Unit 1 stopped receiving wastes in 1988 and Unit 2 stopped receiving wastes in 2001.
5. The approximately 105-acre facility consists of three existing unlined waste management units (Unit) covering approximately 27.5 acres, as shown in Attachment B, which is incorporated herein and made part of this Order by reference. No leachate collection or recovery systems exist at this facility. No permanent gas monitoring or gas extraction systems exist at this facility.
6. The existing landfill units (all unlined) authorized by this Order are described as follows:

Unit	Area	Waste Type/Est. Volume (including cover material)	Unit Status
Unit 1	~ 17.5 acres	Wood Waste/318,000 cy <sup>1</sup>	Inactive
Unit 2	~ 9.5 acres	Wood waste/83,500 cy	Dry weather clean-closure operations (started 2009)
Unit 4	< 1 acre	Co-generation boiler ash/27,600 cy	Inactive

<sup>1</sup>cy = cubic yards

Note that an additional Unit designated number 3 was sited and approved, but it was never constructed or utilized for disposal.

7. Three unlined storm water detention basins exist on-site. Pond #1 is located at the north tip of the facility north of Unit 1, Pond #5 is located below Unit 2 near the west central portion of the facility, and Pond #7 is located at the southeast corner of the facility. The basins detain storm water for sedimentation control during the rainy season and are normally dry during the summer months. When full, the basins discharge into drainages that flow to the Feather River.
8. Chemical constituents found in the wood waste at the facility that have the potential to affect the quality of waters of the State include pentachlorophenol (PCP), formaldehyde, polynuclear aromatic hydrocarbons (PAHs), tannins, and lignins. Formaldehyde in the waste originated from the Louisiana-Pacific Corporation hardboard facility, which used a urea-formaldehyde glue. PAH compounds encountered in the waste may be from water flowing from the adjacent Koppers wood-treating facility or associated with ash that was previously disposed in the landfill. Tannins and lignins are normal decomposition products of wood waste. None of the above constituents have been detected in groundwater beneath the site in concentrations that affect beneficial uses.
9. On 28 September 1990, the Central Valley Water Board issued Waste Discharge Requirements (WDRs) Order 90-266, in which the facility was classified as a Class III waste disposal site for the discharge of wood wastes and ash in accordance with the regulations in effect when the Order was adopted. WDRs Order R5-2005-0027 was issued on 27 January 2005, and required the Discharger to close (cap wastes in place) or clean-close (excavate and remove all residual wastes) the three existing Units. On 4 May 2007, WDRs Order R5-2007-0042 was issued to the Discharger allowing clean-closure of the Units with transportation of recovered wastes to co-generation facilities for use as fuel. This Order supersedes all previous Orders and allows for clean-closure of the three existing Units and recovery of waste materials for use as a soil amendment and/or co-generation fuel. This Order continues to classify the landfill units as Class III units in accordance with Title 27.
10. 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 Standard Provisions and Reporting Requirements (SPRRs) dated January

2012 which are part of this Order. Monitoring and reporting requirements are included in the Monitoring and Reporting Program (MRP) R5-201X-XXXX and in the SPRRs. In general, requirements that are in regulation 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.

11. 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.

### **SITE DESCRIPTION**

12. The landfill is located along the eastern margin of the Sacramento Valley approximately one mile east of the Feather River. The area is characterized by rolling foothills grading eastward into the steeper flanks of the Sierra Nevada Mountains and westward toward the flat expanse of the valley floor.
13. Land uses within 1,000 feet of the facility are zoned industrial.
14. There are 42 municipal, domestic, industrial, or agricultural groundwater supply wells within one mile of the facility.
15. Four major geologic units have been identified beneath the site. The units are the Lone Formation, the Merhten Formation, the Nomlaki Tuff, and the Laguna Formation. With the exception of the Nomlaki Tuff, the units are composed of Cenozoic flood deposits from the current and ancestral Feather River System. The Laguna and Merhten Formations contain water bearing sands and gravels that are commonly separated by interbedded clayey aquitards.
16. Groundwater exists approximately 75 to 140 feet below native ground surface. Groundwater elevations range from 126 feet MSL to 177 feet MSL. Pumping tests from an interval of well-graded sand with clay and gravel identified as Merhten Formation measured a hydraulic conductivity of  $3 \times 10^{-1}$  cm/sec. Geologic logs from site monitoring wells indicate fine-grained sediments are also present beneath the base of the waste management units and above groundwater. The hydraulic conductivity of these sediments is approximately  $3 \times 10^{-5}$  cm/sec.
17. The closest active Holocene fault is the Cleveland Hill Fault located approximately seven miles southeast of the facility. The maximum credible earthquake is estimated to be a ML = 6. The peak horizontal acceleration at the site, considering the maximum credible earthquake, is approximately 0.3g.

18. The climate in the Oroville area generally consists of dry and hot summers with mild winters. The facility receives a mean annual rainfall of 29 inches with nearly 90 percent occurring between November and April. The average annual evaporation is approximately 68 inches.
19. The 100-year, 24-hour precipitation event is estimated to be 5.51 inches, based on Department of Water Resources' Bulletin No. 195 entitled Rainfall Analysis for Drainage Design Volume II Long-Duration Precipitation Frequency Data, dated October 1976.
20. The waste management facility is not within a 100-year flood plain.

### **SURFACE WATER AND GROUNDWATER CONDITIONS**

21. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition (hereafter "Basin Plan"), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
22. Surface drainage from landfill operation areas flows toward the three storm water detention basins on-site. Discharge from the storm water detention basins is to intermittent drainage courses north and west of the facility, which are tributary to the Feather River in the Lower Feather River Hydrologic Area (515.40) of the Sacramento Hydrologic Basin. The Feather River is located approximately one mile west of the site.
23. The designated beneficial uses of the Feather River, as specified in the Basin Plan, are municipal and domestic supply; agricultural supply; hydropower generation; water contact recreation; non-contact water recreation; commercial and sport fishing; warm fresh water habitat; cold fresh water habitat; wildlife habitat; and spawning, reproduction, and/or early development.
24. Monitoring data indicates background groundwater quality has an electrical conductivity (EC) ranging between 200 and 653 micromhos/cm and a total dissolved solids (TDS) concentration ranging between 206 and 290 mg/l.
25. The direction of groundwater flow is toward the south and southwest. The average groundwater gradient is approximately 0.01 feet per foot.
26. 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 SURFACE WATER MONITORING**

27. The current groundwater monitoring system includes four monitoring wells, LF-1A, LF-2, LF-4, and LF-5. Three additional monitoring wells (LF-1, LF-3, and W-2) have previously been included in the groundwater monitoring network. However, these wells are no longer used in the current monitoring system. Monitoring well LF-1 was replaced by monitoring well LF-1A in August 2000 due to an improper screen interval and low groundwater yield. It has been reported that monitoring well LF-3 was abandoned after Unit 1 ceased accepting wastes. Monitoring well W-2 was installed in June 1988 by the United States Environmental Protection

Agency as part of the soil and groundwater investigation at the Koppers Superfund Site located adjacent to the former Louisiana-Pacific Corporation mill. It has been reported that monitoring well W-2 was abandoned after the site investigation was completed, but data demonstrating proper destruction of the well has not been provided. All remaining monitoring wells will be abandoned at the completion of the clean-closure project after the Discharger demonstrates that residual wastes left at the site pose no threat to water quality.

28. Groundwater monitoring well details are provided below:

Well ID	Installation Date	Total Depth	Screen Interval	Well Type
LF-1A	August 2000	138 ft <sup>1</sup>	115 – 135 ft bgs <sup>2</sup>	Background
LF-2	June 1987	162 ft	138 – 158 ft bgs	Compliance
LF-4	June 1987	160 ft	129 – 159 ft bgs	Compliance
LF-5	June 1987	169 ft	138 – 168 ft bgs	Compliance

<sup>1</sup>ft = feet

<sup>2</sup>bgs = below ground surface

29. The Discharger's detection monitoring program for groundwater at the landfill satisfies the requirements contained in Title 27.
30. The waste management units at this landfill are unlined and there is no unsaturated zone monitoring system.
31. The Discharger is enrolled under the State Water Resources Control Board Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit), Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities, WDID No. 5R04I019233. Storm water discharges from the site are monitored in accordance with provisions of the General Permit.
32. Volatile organic compounds (VOCs) are often detected in a release from a 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.
33. 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.

34. 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 Standard Provisions and Reporting Requirements 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.
35. For a naturally-occurring constituent of concern, 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).
36. The Discharger submitted a 19 May 2008 Amended Water Quality Protection Standard (WQPS) report proposing statistical data analysis methods to calculate concentration limits for each monitored constituent in accordance with Title 27. At that time, there was insufficient data available to calculate concentration limits for each inorganic monitoring parameter and constituent of concern. This Order will require the Discharger to update the WQPS report and analyte concentration limits.
37. The Discharger submitted a 27 September 2007 *Sample Collection and Analysis Plan*, which was approved on 18 October 2007.

## **GROUNDWATER CONDITIONS**

38. Low concentrations of Chloroform have been detected at background well LF-1A four times since 2010. Additionally, low concentrations of cis-1,2-Dichloroethene, Trichlorofluoromethane, and Trichloroethene have been detected at compliance well LF-2 in most samples dating back to May 2009. Each of these volatile organic compound (VOC) detections was at estimated concentrations below the method reporting limits. During the second semiannual 2011 monitoring event, the Discharger obtained split samples from compliance well LF-2. The split samples were analyzed by the original laboratory and a second laboratory in an attempt to confirm or deny the relatively consistent estimated

concentrations of VOCs in well LF-2. The second laboratory did not identify any VOCs above method detection limits, but the second laboratory also had method detection limits slightly higher than the first laboratory. During January/February 2012, the Discharger replaced the dedicated pump and sample tubing in well LF-2 in an effort to determine if the older well equipment was contributing to the low VOC concentrations. Results of the June 2012 sampling event found cis-1,2-Dichloroethene at 0.17 µg/L in well LF-2 and chloroform at 0.19 µg/L in well LF-1A, slightly exceeding the method detection limits for both analytes. No other VOCs were identified during this sampling event. The Discharger is still evaluating these low concentration detections and there does not appear to be an increasing trend for the detected analytes.

### **LANDFILL CLEAN-CLOSURE**

39. The Discharger submitted a revised Report of Waste Discharge (ROWD) for Clean-Closure of the Oroville Landfill Properties Class III Wood Waste Landfill dated 20 December 2006. In the ROWD, the Discharger proposed to excavate wood wastes from Units 1 and 2, process and separate the wastes from cover soils on-site, and then haul the recovered wood waste to a facility approved by the Executive Officer for re-use or disposal. The Discharger also proposed to excavate wood ash from Unit 4 and haul the materials to agricultural lands for use as a soil amendment.
40. In accordance with Title 27, section 20950(a)(2)(B), the goal of closure Performance Standards for Units that are clean-closed is to physically remove all waste and contaminated materials from the Unit and from its underlying and surrounding environs, such that the waste in the Unit no longer poses a threat to water quality. Successful completion of clean-closure eliminates the need for a post-closure maintenance period.
41. Clean-closure operations began in 2009 at Unit 2. Current operations involve excavating wood waste during summer months and processing the material through a trommel with 3/8-inch screen. Approximately 80% of the processed material is fine-grained wood waste with some soil, sand, and small gravel mixed in. The recovered fine-grained material is sampled and analyzed to ensure that it is non-hazardous and contains appropriate nutrients. Recovered material stockpiles are stored on-site until laboratory sample results confirm that the material is non-hazardous and appropriate for the proposed end use. Recovered material characterized as non-hazardous is currently being hauled to a compost facility in Mendocino County where it's incorporated into a soil amendment and sold to the public. Other facilities may receive recovered materials deemed to be non-hazardous. This Order requires the Discharger to identify the facility name, location, owner, and volume of material shipped for all material removed from the site. The Discharger has also run pilot tests to pelletize the fine-grained material into small bricks for use as fuel at co-generation power plants. Equipment for pelletizing the fines has been purchased, and it's possible that significant quantities of this material may be marketed for fuel. The remaining 20% of recovered material consists of gravel and cobble up to 10 inches in diameter and wood pieces up to 3 feet in length. Small quantities of other non-hazardous solid waste (aluminum cans, plastic water/soda bottles, metal straps, etc.) recovered during processing of the material is disposed off-site at appropriate disposal facilities. The Discharger is still refining processes to separate the oversized wood pieces from the cobbles. During summer 2012, recovered material separation processes improved to where most of the oversized wood could be separated from the

cobbles. The Discharger anticipates adding a float tank that uses water to remove the rest of the wood pieces. Waste water from the float tank would be used on-site for dust control. Recovered oversized wood pieces will be sold to co-generation power plants as fuel or processed in another manner acceptable to the Executive Officer. Once clean-closure of Unit 2 is completed, operations will move to the larger Unit 1, and then on to Unit 4 for recovery of the boiler ash. When all wastes are recovered from a Unit, confirmation soil samples will be collected and analyzed to determine if residual wastes pose a threat to water quality or human health. The goal of this clean-closure project is to remove all pollutants to concentrations below applicable residential cleanup criteria so that future land use is unrestricted. If pollutants exceed residential land use criteria, then deed restrictions may be applied, which could limit future development of the land.

42. During summer 2012, approximately 20,000 cubic yards of wood waste from Unit 2 was excavated and processed over five weeks. The production rate was approximately 1,000 cubic yards per day. With further development of the production equipment and identification and development of markets for the recovered material, it is expected that the amount of material removed each year will increase significantly.
43. If the Discharger fails to complete clean-closure of each landfill Unit, then residual wastes will be required to be closed in place with post-closure maintenance and monitoring in accordance with all applicable provisions of Title 27.

### **FINANCIAL ASSURANCES**

44. Title 27, sections 21820 and 22206 require a cost estimate for landfill closure. Title 27, sections 21840 and 22211 requires a cost estimate for landfill post-closure maintenance. On 13 July 2006, the Discharger submitted a cost estimate for closing the landfill in the amount of \$1,602,376 and a cost estimate for post-closure maintenance of the landfill in the amount of \$1,427,218.
45. Title 27, section 22221 requires a cost estimate for corrective action of all known or reasonably foreseeable releases. The Discharger submitted an 8 April 2004 cost estimate of \$103,900 for corrective action of all known or reasonably foreseeable releases.
46. On 29 September 2006, the Discharger submitted a Letter of Credit in the amount of \$3,133,494 for closure, post-closure maintenance, and corrective action costs. The Letter of Credit is still active, but it has not been updated for inflation since its issuance.
47. This Order requires that the Discharger maintain financial assurance for closure, post-closure maintenance, and corrective action of all known or reasonably foreseeable releases. Additionally, this Order requires the Discharger to amend the existing Letter of Credit to incorporate information required pursuant to Title 27, section 22243(b) and to adjust the amount of the financial assurances for annual inflation calculated since September 2006. This Order also requires the Discharger to continue to adjust the financial assurances for annual inflation in accordance with Title 27, section 22236.

## CEQA AND OTHER CONSIDERATIONS

48. 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.
49. This order implements:
- a. The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition (and subsequent revisions);
  - 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. The *Porter-Cologne Water Quality Control Act* (as amended 1 January 2004 and subsequent revisions); and
  - d. *State Water Resources Control Board Resolution 68-16, Statement of Policy With Respect to Maintaining High Quality of Waters in California.*
50. Based on the threat and complexity of the discharge, the facility is determined to be classified 2-B as defined below:
- a. 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 water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."
  - 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."
51. 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 discharged 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 proposed to discharge waste outside of its region that could affect the quality of the waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional 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.
52. The technical reports required by this Order and the attached "Monitoring and Reporting Program 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

53. 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. No local agency has expressed any concern regarding clean-closure of the Units at the landfill.
54. 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.
55. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED**, pursuant to Water Code sections 13263 and 13267, that Order R5-2007-0042 is rescinded except for purposes of enforcement, and that Oroville Landfill Properties, Oroville Landfill Properties LLC, Jack M. Steebles LLC, Carol Ann Seidenglanz LLC, and Steven Conn Seidenglanz LLC, their 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' to any part of this facility is prohibited. For the purposes of this Order, the term 'hazardous waste' is as defined in California Code of Regulations, title 22, section 66261.1 et seq., and 'designated waste' is as defined in Water Code section 13173.
2. The discharge of waste to any Unit is prohibited. However, temporary storage of materials recovered during clean-closure of Units 1, 2, and 4 is permitted.
3. The Discharger shall comply with all applicable Standard Prohibitions listed in Section C of the Standard Provisions and Reporting Requirements (SPRRs) dated January 2012 which are attached hereto and made part of this Order by reference.

### B. DISCHARGE SPECIFICATIONS

1. The Discharger shall comply with all applicable Standard Discharge Specifications listed in Section D of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

### C. FACILITY SPECIFICATIONS

1. The Discharger shall manage facility operations so that clean-closure activities and any recovered waste material stockpiled at the site does not cause a release of pollutants, or

waste constituents that could cause a condition of nuisance, degradation, contamination, or pollution of groundwater or surface water to occur, as indicated by the most appropriate statistical or non-statistical data analysis method and retest method listed in this Order, the Monitoring and Reporting Program, or the SPRRs.

2. The Discharger shall maintain a Storm Water Pollution Prevention Plan that is site specific and addresses clean-closure of landfill Units in accordance with State Water Resources Control Board Order No. 97-03-DWQ and subsequent replacement Orders. Any storm water discharge off-site shall be done in accordance with applicable storm water regulations and Monitoring and Reporting Program No. \_\_\_\_\_.
3. The Discharger shall comply with all applicable Storm Water Provisions listed in Section L of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.
4. Surface drainage within the waste management facility shall be directed to one of three storm water detention basins. Additional surface water detention or retention basins may be necessary as clean-closure activities proceed. If new detention or retention basins are proposed, then the Discharger shall submit for Executive Officer review and approval design plans prior to constructing new containment structures.
5. All storm water detention and retention basins shall be operated and maintained to minimize vectors and odors. Freeboard of at least two feet shall be maintained at all times in each basin.
6. The Discharger shall submit for Executive Officer review and approval **by 15 September annually for the life of the clean-closure project and the post-clean-closure monitoring period** a Winterization Plan. The Winterization Plan should describe specific erosion and sediment control best management practices (BMPs) to be implemented for each upcoming wet weather season and include a discussion regarding any proposed clean-closure work activities scheduled during the wet weather season. The Winterization Plan shall also include a site map showing anticipated storm water drainage patterns and locations of major BMPs. **The Winterization Plan shall be implemented by 1 November annually.**
7. The Discharger shall comply with all applicable Standard Facility Specifications listed in Section E of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

#### **D. CONSTRUCTION SPECIFICATIONS**

1. The Discharger shall comply with all applicable Standard Construction Specifications listed in Section F of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

#### **E. CLEAN-CLOSURE AND POST-CLEAN-CLOSURE MAINTENANCE SPECIFICATIONS**

1. **By 1 July 2013**, the Discharger shall submit for Executive Officer review and approval a Waste Characterization Work Plan that is specific for materials to be recovered from each Unit

at the landfill. The Waste Characterization Work Plan shall propose a sampling plan sufficient for classifying recovered materials as non-hazardous waste or hazardous waste. The Waste Characterization Work Plan shall include proposed constituents of concern, a sampling frequency, and appropriate analytical methods for classifying the recovered materials. All materials recovered during clean-closure activities shall be characterized in accordance with an approved Waste Characterization Work Plan.

2. Only recovered materials classified as non-hazardous may be utilized for soil amendments or co-generation power fuel. Any recovered material classified as hazardous waste must be isolated from other recovered materials, labeled as hazardous waste, and otherwise managed appropriately in accordance with all applicable laws and regulations. The Discharger shall provide written notification within seven days of receiving laboratory sample results indicating that recovered materials exceed hazardous waste criteria or are deemed inappropriate for use as a soil amendment or co-generation power fuel.
3. **By 1 May annually**, the Discharger shall provide an operations plan and schedule for all clean-closure work anticipated to be conducted throughout the remainder of the respective year. The operations plan shall identify recovered material stockpile locations, material processing locations, planned excavation areas, and include an assessment prepared by a professional engineer or certified engineering geologist regarding the stability and safety of waste and native slopes.
4. The Discharger shall maintain records of clean-closure activities, including weight and volume measurements for recovered materials removed from each Unit and for materials hauled off-site, all sample analytical results, and disposal receipts for any waste removed from a Unit during clean-closure activities that cannot be re-used. The Discharger shall also identify the name, location, and owner of each facility receiving recovered materials. Records of clean-closure activities shall be submitted in the Annual Monitoring Summary Report, in accordance with the reporting requirements included in Monitoring and Reporting Program No. R5-201X-XXXX.
5. Prior to beginning clean-closure activities in Unit 4 (co-generation boiler ash Unit), the Discharger shall identify potential end uses for recovered ash and submit them to the Executive Officer for review and approval. Ash recovered from Unit 4 may only be hauled off-site after receiving Executive Officer approval for the proposed end use.
6. Recovered material stockpiles shall be managed to prevent erosion and saturation. Stockpiles left on-site after 1 November each year shall be appropriately armored to prevent leachate generation and/or anaerobic decomposition.
7. At the end of each material recovery season and prior to **1 November annually**, waste slopes shall be stabilized, graded to drain toward an appropriately located storm water detention/retention basin, and covered with at least six inches of intermediate soil cover or an alternative cover approved by the Executive Officer.
8. After completion of material recovery operations within a specific Unit, final subgrade slopes shall not exceed a steepness horizontal to vertical ratio of 1.75H:1V and flatter areas shall be sloped at three percent or greater. Any final slope designed to be steeper than 3H:1V shall be

specifically supported in a slope stability analysis in accordance with Title 27, section 21750(f)(5). An appropriate sediment and erosion control plan shall also be implemented at each Unit upon final clean-closure.

9. Decommissioned groundwater monitoring wells that may be encountered in Units 1 or 2 during clean-closure excavation activities shall be properly destroyed under permit from Butte County Environmental Health Department.
10. Post-clean-closure maintenance activities shall occur for a period of at least two years after completing clean-closure of the final Unit at the landfill. Post-clean-closure maintenance activities shall include, at a minimum, standard observations and semiannual groundwater monitoring in accordance with Monitoring and Reporting Program R5-201X-XXXX.
11. The Discharger shall submit a work plan for destruction of each groundwater monitoring well upon successful completion of all clean-closure activities at each Unit as approved by the Executive Officer. The Discharger shall provide documentation verifying that all groundwater monitoring wells have been properly destroyed prior to receiving Central Valley Water Board approval of the landfill clean-closure project.
12. **Within 60 days of completing clean-closure activities in a Unit**, the Discharger shall submit for Executive Officer review and approval a Final Clean-Closure Report for the Unit that was clean-closed. The report shall summarize clean-closure activities completed to date and include all waste characterization and subgrade verification monitoring results. After completing clean-closure of each landfill Unit, including implementation of appropriate erosion and sediment control best management practices, landfill monitoring shall continue for a two year post-clean-closure maintenance period. After completing the two year post-clean-closure maintenance period, the Discharger may request No Further Action Required status from the Executive Officer. If approved, the Waste Discharge Requirements will be rescinded and all remaining financial assurances will be released.
13. The Discharger shall comply with all applicable Standard Closure and Post-Closure Specifications listed in Section G of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

## **F. FINANCIAL ASSURANCE SPECIFICATIONS**

1. The Discharger shall obtain and maintain assurances of financial responsibility for closure and post-closure maintenance for the landfill in at least the amounts of the most current closure and post-closure maintenance cost estimates. If the Executive Officer determines that either the amount of coverage or the financial assurance mechanism is inadequate, then within 90 days of notification, the Discharger shall submit an acceptable mechanism to the Executive Officer for at least the amount of the approved cost estimate.
2. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill. If the Executive Officer determines that either the amount of coverage or the financial assurance mechanism is inadequate, then within 90 days of notification, the Discharger shall

submit an acceptable mechanism to the Executive Officer for at least the amount of the approved cost estimate.

3. The Discharger shall provide **by 1 July 2013** updated cost estimates for closure, post-closure maintenance, and corrective action based on the inflation factor calculations from 2007, 2008, 2009, 2010, 2011, and 2012. Additionally, existing Irrevocable Letter of Credit No. 1654 needs to be amended to incorporate information required pursuant to Title 27, section 22243(b) and the monetary amount of the financial assurance needs to be increased based on the inflation factor calculations dating back to 2007. Provide documentation verifying incorporation of the regulatory language changes required by Title 27 and monetary increases in the amounts of the financial assurance mechanisms **by 1 July 2013**.
4. The Discharger shall submit to the Executive Officer a report **by 1 June of each year** calculating the increase in the closure, post-closure maintenance, and corrective action cost estimates due to the inflation factor for the previous calendar year in accordance with Title 27, section 22236. The Discharger shall increase the monetary amount of each financial assurance mechanism based on this inflation calculation and provide documentation verifying the increase with each annual report.
5. The Discharger may request release of partial closure funds from the closure financial assurance mechanism after completing clean-closure activities, including verification sampling, within a specific Unit. The amount of the release request shall be proportionate to the area of the Unit that has been clean-closed as compared to the total area of the three Units combined. Financial assurances for post-closure maintenance and corrective action shall be maintained until clean-closure activities for the entire landfill and the minimum two-year post-clean-closure maintenance period are completed.
6. The Discharger shall comply with all applicable Standard Financial Assurance Specifications listed in Section H of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

#### **G. MONITORING SPECIFICATIONS**

1. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater in accordance with Monitoring and Reporting Program (MRP) R5-201X-XXXX, and the Standard Monitoring Specifications listed in Section I of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.
2. **By 1 October 2013**, provide an updated Water Quality Protection Standard Report containing updated concentration limits.
3. The Discharger shall comply with the Water Quality Protection Standard as specified in this Order, MRP R5-201X-XXXX, and the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.
4. The concentrations of the monitoring parameters and 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 in the Water Quality Protection Standard Report pursuant to MRP 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 R5-201X-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.
6. The Discharger shall comply with all applicable Standard Monitoring Specifications and Response to a Release Specifications listed in Sections I and J of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

## H. PROVISIONS

1. The Discharger shall maintain a copy of this Order at the facility, including MRP R5-201X-XXXX and the SPRRs dated January 2012 which are part of this Order, 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 R5-201X-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 Subtitle D and/or Title 27, dated January 2012, which are attached hereto and made part of this Order by reference.
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.
7. The Discharger shall comply with all applicable General Provisions listed in Section K of the SPRRs dated January 2012 which are attached hereto and made part of this Order.
8. The Discharger shall complete the tasks contained in these waste discharge requirements in accordance with the following time schedule:

Task

Compliance Date

### A. Clean-Closure

1. Submit a Waste Characterization Work Plan **By 1 July 2013**

for review and approval.  
(see Clean-Closure and Post-Clean-Closure  
Maintenance Specification E.1).

2. Submit an annual clean-closure operations plan and work schedule.  
(see Clean-Closure and Post-Clean-Closure Maintenance Specification E.3).

**By 1 May annually**

3. Submit letter identifying proposed end uses for recovered boiler ash in Unit 4 for review and approval.  
(see Clean-Closure and Post-Clean-Closure Maintenance Specification E.5).

**Prior to beginning clean-closure work in Unit 4**

4. Submit a Groundwater Monitoring Well Destruction Work Plan.  
(see Clean-Closure and Post-Clean-Closure Maintenance Specification E.11).

**At successful completion of clean-closure project for entire landfill facility**

5. Submit Final Clean-Closure Report for each Unit.  
(see Clean-Closure and Post-Clean-Closure Maintenance Specification E.12).

**60 days after completing Unit clean-closure activities**

#### **B. Facility Maintenance**

1. Submit an annual Winterization Plan.  
(see Facility Specification C.6).

**By 15 September annually**

#### **C. Financial Assurances**

1. Submit updated cost estimates and verification of monetary increases to the financial assurance mechanism based on the updated cost estimates for closure, post-closure maintenance, and corrective action.  
(see Financial Assurance Specification F.3).

**By 1 July 2013**

2. Submit an Annual Financial Assurance Report that includes the inflation factor calculation and monetary increase to the financial assurance mechanism based on the inflation factor calculation.  
(see Financial Assurance Specification F.4).

**By 1 June annually**

#### **D. Facility Monitoring**

1. Submit an updated Water Quality Protection Standard Report with updated concentration limits. (see Monitoring Specification G.2). **By 1 October 2013**

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](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

DPS