California Regional Water Quality Control Board
North Coast Region

WASTE DISCHARGE REQUIREMENTS
ORDER NO. R1-2015-0019

for

TRINITY COUNTY
CLOSURE OF
WEAVERVILLE CLASS III SOLID WASTE DISPOSAL SITE AND
OPERATION OF
WEAVERVILLE INERT CELL SOLID WASTE DISPOSAL SITE
WDID No. 1A80193OTRI

Trinity County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter the Regional Water Board) finds that:

1. The Trinity County Solid Waste Division, (hereinafter Discharger) owns and operates the Weaverville Solid Waste Disposal Site (Site), which is comprised of a Class III Solid Waste Disposal Site (SWDS) and an Inert Solid Waste Disposal Site (Inert Cell). The Class III Waste Management Units (WMU) have been operated since 1964, initially as an open burn dump and then converted to a sanitary landfill in the late 1970s. The Inert Cell began operating as a construction debris disposal site in October 2000, after a 0.75 acre clay liner was installed. In 2004, the Discharger began allowing placement of only select inert wastes in the Inert Cell, rather than installing the required engineering controls needed to continue accepting construction debris.

2. The Site is located in Trinity County in Weaverville, California, in the southeast ¼ of Section 6, Township 33 North, Range 9 West, of the Mount Diablo Base Meridian, as shown on Attachments "A", "B", "C", "D," and "E", incorporated herein and made part of this Order. The Site latitude and longitude are 40° 44' 51" North and 122° 55' 45" West, respectively. The Site comprises Trinity County Assessor's Parcel Numbers 24-200-10 and 24-200-33.

3. The Site's facility boundary ("waste management facility" as defined in California Code of Regulations, title 27) includes a total area of approximately 43.6 acres within a portion of two of three adjacent parcels totaling 120 acres owned by the County, and is shown on Attachments B, C, and D. The Class III SWDS footprint occupies 16.6 acres, and the Inert Cell will occupy 2.3 acres

of space at full build-out, for a total waste footprint of approximately 19 acres. The transfer station is located outside of the Site's facility boundary.

4. The Discharger submitted a June 1, 2009 Joint Technical Document (JTD) package, including the June 1, 2009 *Report of Waste Discharge* (ROWD) and the March 10, 2008 *Phase II Final Closure and Post Closure Maintenance Plan* (Closure Plan) prepared by Lawrence and Associates for the closure of the Cell E footprint. The Discharger submitted an updated JTD index, Report of Waste Discharge and closure plan amendments in June 2010. The Closure Plan addresses closure of the remaining 6.5 acres, including all of the Bureau of Land Management (BLM) area (Cell E) and adjacent portions of Cells A, B, and C. The following documents were submitted and stand as supplemental information to complete filing of the WDR application:

   a. *Trinity County Landfill Solid Waste Assessment Report* by Steffen, Robertson, and Kirsten, Inc., 1992.
   b. *Hydrogeologic Investigation and Leachate-Control System Plans of the "BLM" Fill Area* by Lawrence and Associates, June 7, 1996.
   c. *Report of Disposal Site Information* by CH2M-Hill, April 1997.
   d. *Article 5 Monitoring Proposal* by Lawrence and Associates, June 4, 1997, with August 14, 1997 addendum.
   e. *Work Plan for Investigating Cover* by Lawrence and Associates, July 1998.
   f. *CQA Report for Leachate Control System and Erosion Control* by Lawrence and Associates, August 28, 1998.
   g. *Initial Study for the Solid Waste Siting Element, Construction of a Transfer Station, and Changes in Landfill Operation* by Lawrence and Associates, August 1998.
   h. *Engineering Feasibility Study* by Lawrence and Associates, September 1998.
   i. *Design Report and Operations Plan for Inert/Construction Debris Cell* by Lawrence and Associates, April 5, 1999.
   j. *Weaverville Landfill Barrier Layer Installation- Inert Cell* by Lawrence and Associates, January 24, 2001.
   k. *Partial Final Closure Plan for Portions of Cells A through D and Preliminary Closure Plan for the Remainder of the Landfill* by Lawrence and Associates, March 1, 2001, including May 7, 2001 letter with plan corrections. This report includes the *Construction Quality Assurance Report for the Installation of the Partial Final Closure Cap as a Corrective Action* as an appendix.
   l. *Work Plan for Additional Groundwater Investigation* by Lawrence and Associates, March 2003, with December 2005 revision.
   m. *Additional Groundwater Investigation* by Lawrence and Associates, August 2006.
   n. *Landfill-Gas Well Monitoring and Control Program Plan* by Lawrence and Associates, September 18, 2008, with April 22, 2009 addendum.
   o. *Construction Quality Assurance Report for Installation of Passive Gas-Venting Wells LFG-1 and LFG-2* by Lawrence and Associates, December 20, 2013.

REGULATORY HISTORY AND BACKGROUND

5. The Class III disposal site was used regularly until a transfer station was built on the property in 1999. 10.14 acres of the Class III landfill was capped as corrective action in 1999, with the remaining 6.5 acres left for use if waste transfer could not occur from the transfer station to the Anderson Landfill. This remaining landfill capacity is no longer needed, and the landfill cap for the Class III landfill will be completed. The Inert Cell will continue to operate.

6. The original Waste Discharge Requirements (WDRs) show septage ponds within the Class III SWDS footprint at the northern end near Cell D. No information can be found describing these ponds; they may have been incorporated into the Class III SWDS.

7. The Class III Disposal Site consists of five WMUs, Cells A through E. Cell E, also known as the BLM area, is the location of the original burn dump. Once the Site was converted to a sanitary landfill, the other four cells were built. Cells A and B, 0.8 and 2.3 acres, respectively, predate federal Subtitle D regulations, and are lined with 18 to 24-inches of clay, with a hydraulic conductivity of less than 1×10^{-6} cm/sec. Cells C and D, 7.2 and 2.8 acres, respectively, are lined with 24 to 30-inches of clay, with a hydraulic conductivity of less than 4×10^{-8} cm/sec. The 3.6 acre Cell E, the BLM area, was not lined with clay, because it was already underlain by waste from the old burn dump. Waste in Cell E is believed to be lying on native bedrock.

8. Cell E, the BLM area, was not originally owned by Trinity County, although Trinity County operated the burn dump on approximately 3.6 acres of land owned by BLM. In 1996, Trinity County purchased 15 acres from BLM, including the 3.6 acres previously used for disposal. In 1997, after Cells A through D reached capacity, Cell E started accepting additional waste, and averaged 21 tons per day of non-hazardous residential and commercial wastes. This continued until the transfer station was opened and then small amounts of waste were disposed of until November 2001. Cell E and adjacent portions of Cells A, B, and C are the only part of the Class III WMUs not capped.

9. The Inert Cell was constructed in 1999 to allow heavy construction waste to be disposed of onsite rather than being transferred. A 0.75 acre portion of the 2.3 acre WMU has been lined with 1 foot of clay with a hydraulic conductivity less than 1×10^{-6} cm/sec, and 18 inches of gravel operations layer. In 2004, the Discharger started using the Inert Cell for only select inert material which does not require any additional sampling or control measures beyond basic drainage and erosion control requirements.

10. In 1997, an *Article 5 Monitoring Proposal* was developed that showed trace volatile organic compounds and increasing trends in some general mineral constituents. A Corrective Action Plan was developed based on the 1998 *Engineering Feasibility Study* by Lawrence and Associates that determined improvements to the leachate collection and recovery system (LCRS), runoff control, and capping the Class III WMUs were the most feasible option. The Discharger made improvements to facility drainage and to the LCRS in the summer of 1997, and constructed the Phase I partial final closure cap during the summer of 1999. The Class III SWDS is in corrective action.

11. In recent years, methyl tert-butyl-ether (MTBE), tert-butyl alcohol (TBA), and tetrahydrofuran (THF) have been detected in wells both upgradient and downgradient of the Site. The source of this contamination is suspected to be from the Weaverville Airport activities related to firefighting training, but an investigation did not find the source locations (*Additional Groundwater Investigation* by Lawrence and Associates, August 2006). Levels of contamination have continued to drop over time.

12. The Phase II closure cap, including passive gas vent installation, required by this WDR will complete the construction phase of the proposed corrective action. The two passive gas vents were installed in fall 2013. Corrective action will continue to include environmental monitoring and the operation and maintenance of the LCRS and gas vents.

13. The Regional Water Board first regulated the Trinity County Weaverville SWDS by adopting Waste Discharge Requirements (WDRs) under Order No. 80-193, on December 4, 1980. The Order classified the Site as a Class II-2, suitable for municipal refuse under the prevailing regulations of the time. The landfill classification system was later modified and Class II-2 landfills became Class III landfills under the revised nomenclature. The Monitoring and Reporting Program was revised on September 8, 1988.

14. On September 27, 1993, the Regional Water Board adopted Order No. 93-83, General WDRs for Municipal Solid Waste Landfills, which amended existing requirements for municipal solid waste landfills throughout the Region, including those for the County of Trinity, Weaverville SWDS. Thus, discharges at the site are presently governed both by Order No. 80-193 and by General WDRs Order No. 93-83.

15. The Site has been operated as a landfill under WDRs since 1980. Waste disposal prior to 1980 for Weaverville occurred within the footprint of the current Class III WMUs. The waste footprints of the Class III WMUs and the Inert Cell are shown on Attachments B, C, and D.

16. The Discharger constructed a transfer station, south of the Class III SWDS footprint, which began accepting waste on December 6, 1999. Most waste disposal ceased at this time. A small amount of waste was placed in the Class III SWDS between December 1999 and November 2001. No waste has been placed in the Class III SWDS since November 2001.

17. When in operation, the Class III SWDS accepted residential and commercial non-hazardous and inert solid waste. The Class III SWDS has received an estimated 640,000 cubic yards of waste and was receiving approximately 21 tons of waste per day. Waste depth in the Class III SWDS ranges between 10 and 50 feet. The Inert Cell has received approximately 7,576 cubic yards of waste since 2000, with 36 cubic yards being placed since 2004. At the current rate of filling the Inert Cell will not reach capacity until at least 2075. Final closure contours for the Class III landfill are described in the March 2008 *Final Closure and Post-closure Maintenance Plan* by Lawrence and Associates, with June 2010 closure plan amendments, as shown on Attachment C.

18. The Class III WMU areas, as delineated in Attachments B, C, D, and E meet the criteria contained in California Code of Regulations, title 27, for a Class III landfill for non-hazardous solid wastes.

19. Cells A through D are lined with low hydraulic conductivity clay, and Cell E, in the BLM area, is on native soil. The Class III footprint has an LCRS. The LCRS consists of a pre-1996 collection system for which no as-built drawings have been found, and an LCRS system placed in the BLM area in 1997 as part of the corrective action. The entire LCRS system is piped to four storage tanks, which are then plumbed directly to the Weaverville Sanitary District (Sewer District) sanitary sewer. Leachate is pumped into the sewer on a monthly basis, when necessary, by Trinity County personnel. Leachate was sampled twice a year for the Sewer District until 1998. Currently, the Sewer District does not require sampling of the leachate prior to disposal, but reserves the right to request future sampling.

20. On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated federal municipal solid waste (MSW) regulations under the Resource Conservation and Recovery Act (RCRA), Subtitle D (Title 40, Code of Federal Regulations, Parts 257 and 258), hereinafter referred to as "Subtitle D." These regulations apply to all California Class III landfills accepting MSW, including the Trinity County Weaverville SWDS.

21. Effective July 18, 1997, the Water Quality Regulations for Class II and Class III disposal facilities formerly contained in California Code of Regulations, title 23, chapter 15, and the Solid Waste Regulations formerly in California Code

of Regulations, title 14, were re-codified into California Code of Regulations, title 27, chapters 1 through 7, Subdivision 1, Division 2.

SITE DESCRIPTION

22. The Site is located west of the Weaverville Airport, off of Tom Bell Road, on the northwest side of State Route 3, approximately 1.5 miles northeast of the intersection of State Routes 3 and 299, in Weaverville, Trinity County, California. The Site is in the lower northern portion of Weaver Basin, and surface elevations at the Site range from 2,200 to 2,300 feet above mean sea level.

23. Proposed post-closure land use for the Class III waste footprint is undeveloped, non-irrigated open space. The Inert Cell will continue to operate for the foreseeable future. A nonhazardous solid waste transfer station has been constructed south of the Class III SWDS. The Trinity County General Services office is south of the transfer station. The existing WMUs and on-site transfer station facilities are shown in Attachments B, C, D, and E. Transfer station operations will not occur on the footprint of any WMUs.

24. Other areas surrounding the waste footprint are being used for landfill maintenance or other waste storage, such as the new metals storage area and bin storage area that will be built concurrent with the Phase II closure. Trinity County may elect to perform other solid waste-related storage and handling activities outside of the WMUs as long as they do not interfere with post-closure activities at the Class III SWDS or operation of the Inert Cell. Other public, private, or county use of the Site is not planned.

25. A locked gate secures the Site during non-operating hours. The Site grounds include a County office building, transfer station building, gate house, and covered hazardous material storage area. A juvenile detention center is approximately 700 feet north of the SWDS. Surrounding land use is primarily rural residential.

SURFACE WATER

26. The Site is located on and forms a north-south-trending ridge that divides the East Weaver Creek and Five-Cent Gulch (a tributary of East Weaver Creek). Precipitation on the west side of the divide flows into storm water ditches and sedimentation ponds that flow to Five-Cent Gulch then into East Weaver Creek. Precipitation that falls on the east side flows to a drainage swale between the airport and the SWDS which flows through sedimentation ponds and directly to East Weaver Creek.

27. The Site is located in the Five-Cent Gulch watershed tributary of the Weaver Creek Hydrologic Subarea of the Middle Trinity River Hydrologic Area of the Trinity River Hydrologic Unit, within the Klamath River Hydrologic Unit. The Klamath River discharges directly into the Pacific Ocean.

28. The beneficial uses of Five-Cent Gulch, Weaver Creek, and the Trinity River include:

a. MUN - municipal and domestic supply
b. AGR - agricultural supply
c. IND - industrial service supply
d. PRO - industrial process
e. GWR - groundwater recharge
f. FRSH - freshwater replenishment
g. NAV – navigation
h. POW - hydropower generation
i. REC-1 - water contact recreation
j. REC-2 - noncontact water recreation
k. COMM - commercial and sport fishing
l. COLD - cold freshwater habitat
m. WILD - wildlife habitat
n. RARE - rare, threatened or endangered species
o. MIGR - migration of aquatic organisms
p. SPWN - spawning, reproduction, and/or early development
q. AQUA - aquaculture

29. The Site is not located within a 100-year floodplain.

STORM WATER

30. The facility receives an average of 37.4 inches of rainfall per year. The 100-year, 24-hour precipitation event for the facility is 5.5 inches. Drainage facilities and sedimentation ponds are designed to carry flows associated with this event.

31. Storm water from the Site is diverted away from the SWDS by a system of drainage ditches with check dams and sedimentation ponds to control sediment. The SWDS forms a divide and flow to the west of the SWDS discharges to Five-Cent Gulch then into East Weaver Creek, while the flow to the east of the divide discharges directly to East Weaver Creek.

32. Peak flow using the rational method using a 100-year, 24-hour storm would produce an erroneously low peak discharge. Instead, drainage features were designed for peak velocity using Manning's equation, providing a flow design that exceeds California Code of Regulations, title 27 requirements. A storm intensity for a five-minute storm of 0.26 inches per minute was used for drainage calculations.

33. This Order does not replace a need for coverage under a National Pollutant Discharge Elimination System (NPDES) storm water permit, as required by provisions of the Clean Water Act. The County of Trinity, Weaverville Landfill NPDES Permit No. 1 53I003899 has been active since April 3, 1992. This NPDES permit currently covers the landfill and transfer station activities.

34. The Site is located in the lower area of the Weaver Basin, where wet, cool winters and dry, warm summers predominate. Evaporation data from the Trinity Dam, nine miles to the northeast, is 56 inches per year. Dominant wind direction is from the north, with winds generally from the north during clear periods and from the southwest during storm events.

SITE GEOLOGY

35. Quaternary age terrace deposits underlie most of the landfill, with the exception of the BLM area. The terrace deposits consist of clayey sand, gravel and cobbles; locally they may consist of alluvium and colluvium and range from five to 25 feet thick. Drilling conducted in 1995 showed the terrace deposits are not present beneath the BLM area. The terrace deposits may have been removed during hydraulic mining prior to waste placement.

36. The Weaverville Formation underlies the terrace deposits beneath the main landfill and directly underlies the waste in the BLM area. The Weaverville formation consists of an upper unit of pebble and cobble conglomerate with interbeds of sandstone and mudstone, a lower unit of interbedded sandstone, mudstone, claystone, and coal beds. Immediately beneath the landfill, the Weaverville Formation ranges from a clayey siltstone to a clayey, decomposed pebble conglomerate. Aquifers within the Weaverville Formation may occur in gravel zones overlain by claystone, that are confined, or near-surface water that is unconfined (such as found in MW-1). Based on on-site observations, the Weaverville Formation at the Site may have a shallow dip of less than 15 degrees south.

37. Permeabilities in the terrace deposits range from $1x10^{-2}$ cm/sec to $3x10^{-5}$ cm/sec. Permeabilities in the Weaverville Formation range from $1x10^{-4}$ cm/sec to $1x10^{-5}$ cm/sec.

38. The Site is not susceptible to seiches or tsunamis.

39. The Site has a low probability of seismic activity and has no known on-site Holocene faults.

40. The nearest active faults are the Battle Creek Fault zone (70 to 80 miles southeast) and the Mad River Fault (60 miles to the west).

41. The landfill side slopes are 3 to 1 or flatter, there are no significant natural slopes near the Site, and the cap does not have synthetic materials so a seismic and slope stability report is not required.

GROUNDWATER

42. The bottom of the Class III WMUs is less than five feet above naturally occurring high groundwater levels.

43. Shallow groundwater exists in the terrace deposits (shallow aquifer) above the contact with the Weaverville formation (deep aquifer). The shallow zone is unconfined and continuous at the facility, but may not be continuous beyond the facility. The deep aquifer occurs in the Weaverville formation at depths of approximately 70-80 feet below ground surface. The deep aquifer is confined with static water levels that rise to within less than 10 feet of ground surface. The differences in groundwater levels between the shallow and deep aquifer are greater on the east side of the SWDS than on the west side. Typically there is a difference of six to ten feet on the east side and less than 1 foot on the west side. Groundwater generally moves to the southwest in both zones.

44. Groundwater quality data indicate that the landfill affects downgradient groundwater quality to the west of the landfill. Nonhazardous water quality constituents (minerals and general water quality parameters) have been detected at levels that generally exceed background levels in monitoring wells located in this area. Organic compounds have occasionally been detected in the monitoring wells.

45. Five wells, MW-1, MW-5, MW-6, MW-8 and MW-9, were installed from depths of 4.7 to 32.5 feet below ground surface in the first encountered unconfined groundwater of the terrace deposits shallow aquifer. Three wells, MW-2, MW-3, and MW-4B were installed from 73 to 97.5 feet below ground surface in the confined Weaverville Formation deep aquifer.

46. Groundwater monitoring wells MW-1 through MW-4 were installed in 1984; MW-5 and MW-6 were installed by the county in 1987 using a backhoe; MW-7 was never installed; and MW-8 and MW-9 were installed during the Solid Waste Assessment Test (SWAT). MW-4 was replaced by MW-4B in 1995 after MW-4 was damaged by heavy equipment. MW-3 has a shallow seal and may be collecting groundwater from both aquifers. MW-3 is scheduled to be replaced with a new deep aquifer well.

47. Groundwater movement in both the shallow and deep aquifers is to the southwest towards Five-Cent Gulch. Horizontal gradients in the shallow and deep aquifers appear to be approximately 0.030 to 0.070 and 0.040 to 0.070 feet per foot, respectively. The shallow aquifer groundwater flow velocities range from 0.020 feet per day in fine grained sediments to 7.70 feet per day in stream gravels west of the WMUs. The deep aquifer groundwater flow velocities range from 0.002 to 0.110 feet per day.

48. Based on the expected groundwater movement, upgradient wells are MW-1 and MW-8 in the shallow aquifer and MW-2 and MW-4B in the deep aquifer. Downgradient wells are MW-5 and MW-6 in the shallow aquifer and MW-3 in the deep aquifer. Proposed Well MW-3A will be a deep aquifer well in the downgradient direction. The locations of these wells are shown on Attachment B.

49. In addition to the Site's monitoring wells, there are 31 water wells within one mile of the Site. The closest downgradient well, The Brinson Well, has been periodically tested. No impacts have been found at this well.

50. There are two springs about 500 to 700 feet north of the SWDS in the old borrow area. Rate of flow in these springs is estimated to be less than one gallon per minute and typically go dry in the early spring. These springs are upgradient of the SWDS. No springs have been identified downgradient of the SWDS.

51. Beneficial uses of areal groundwater include:

    a. MUN - domestic water supply
    b. AGR - agricultural water supply
    c. IND - industrial service supply
    d. PRO - industrial process supply

ENVIRONMENTAL MONITORING SYSTEMS

52. The current groundwater monitoring network consists of eight groundwater wells in two aquifers, a shallow and deep zone. The shallow zone is defined as wells in the terrace deposits, while the deep zone wells are in the Weaverville Formation. MW-1 is a shallow upgradient background well; MW-2 is a deep upgradient background well; MW-3 is a deep downgradient compliance well; MW-4B (which replaced MW-4) is a deep background well; MW-5 is a shallow downgradient compliance well; MW-6 is a shallow downgradient compliance well; MW-8 is a shallow upgradient background well; and MW-9 is a shallow downgradient compliance well. Gas Probes GP-10 shallow, GP-13 shallow, and GP-14 will be utilized as shallow groundwater well sampling locations. All new groundwater monitoring locations will be sampled quarterly until enough data has been collected to

do statistical analyses. Once this is achieved, sampling frequency will revert to semi-annual. Well locations are shown on Attachment B.

53. There are four storm water/surface water monitoring points designated SW-1 through SW-4. SW-1 and SW-3 are background sampling points and SW-2 and SW-4 are downgradient sampling points. On-site drainage ditches ultimately flow into Five-Cent Gulch and sampling points downgradient of the Class III SDWS are representative of any potential discharge to the creek.

54. Prior to the Phase I closure, the Class III SWDS had a perimeter gas-monitoring network of nine six-foot deep monitoring probes GP-1 through GP-9. Four probes were destroyed during Phase I cap construction and in summer 2000, several additional probes, GP-1A, 2A, 10S, 10D, 11S, 11I, 11D, 12S and 12D, were installed. Probes designated S, I, or D are shallow, intermediate, or deep, respectively. In September 2009, probes GP-13S, GP-13D, and GP-14 were installed in response to new CalRecycle regulations, and the remaining original gas probes were destroyed. The bottoms of the deepest probes, GP-10D, GP-11D, GP-12D, GP-13D and GP-14 are equal in elevation to the bottom of the waste within 1,000 feet of the probe or above the groundwater table, whichever is deepest.

55. There is currently no vadose zone monitoring other than gas monitoring for CalRecycle requirements and the Discharger has proposed to use the gas probe network for vadose zone monitoring.

56. Leachate sampling will occur at the sump upline from the leachate collection tanks; and from LFG-1 and LFG-2, if leachate is present.

CONTROL SYSTEMS

57. The LCRS has been installed at various stages throughout the life of the Class III SWDS. The LCRS was first installed on the west side of Cells C and D the control leachate breakouts. This older section has no as-built plans and drained into a manhole at the southwest corner of Cell C, into a series of tanks, and was disposed of in an evaporation pond during the dry season. In 1997 after the detection of impacts to groundwater, the use of the evaporation pond was discontinued and an LCRS was installed in the BLM area. The system now drains to four alarmed tanks which are then discharged to the sanitary sewer system by Trinity County personnel.

58. In fall 2013, the Discharger installed two passive gas collection wells to the bottom of waste. LFG-1 is in the highest area of the Phase I closure area and LFG-2 is in the BLM area. These wells can be used to monitor leachate in the waste.

59. Existing erosion and sediment control systems include four sedimentation ponds for the west side (Ponds B through E) and two ponds (Ponds G and F) on the east side. Pond A was previously decommissioned and no longer exists. A new sedimentation pond (Pond I) will be installed using the old leachate overflow pond when a new metal storage area is constructed.

CLOSURE AND FINANCIAL ASSURANCES

60. Since Trinity County Weaverville SWDS was not closed prior to the federal deadline (October 9, 1991), the closure requirements of Subtitle D apply.

61. California Code of Regulations, title 27, sections 20950(f) and 20380(b) require that the Discharger establish a formal financial mechanism to fund Site closure, post-closure maintenance, and remediation of the known or reasonably foreseeable release from the facility. Trinity County has a partially funded Trust Fund with the CalRecycle for Closure at the Trinity County Weaverville SWDS. As of May 2010, the fund had $381,432 for a closure cost estimate for Phase II closure of $530,112. The Trust Fund was considered to be fully funded until the Final Closure Plan updated the cost estimate. Post Closure Maintenance is covered by an April 1994 Pledge of Revenue by Trinity County Board of Supervisors, in Resolution No. 20-94. Appendix N of the June 2009 *Joint Technical Document* prepared by Lawrence and Associates, and as amended June 2010, provides a cost estimate for a known or foreseeable release. The Regional Water Board has accepted this cost estimate, and the County has established an environmental insurance policy to provide this financial assurance.

62. The Discharger is required to update approved cost estimates annually to account for inflation, and to submit new policy documents prior to the expiration of the documents currently on file.

63. The *Inert Cell Preliminary Closure and Postclosure Maintenance Plan* is contained in Appendix Q of the June 2009 *Joint Technical Document* prepared by Lawrence and Associates, as amended in June 2010.

64. Inert Cell closure cap will consist of a minimum of 12 inches of soil for a vegetative layer compacted at no less than 90% maximum dry density. The Inert Cell closure cap will be graded at a maximum of three to one, and the top deck will be sloped at a minimum of five percent.

65. Phase I Closure has been described in the March 2001 *Partial Final Closure Plan for Portions of Cells A through D and Preliminary Closure Plan for the Remainder of the Landfill,* including May 2001 corrections, and plans for Phase II final closure activities and Class III SWDS post-closure activities are described in the report titled *Phase II Final Closure and Post-closure*

Maintenance Plan, dated March 2008, with a June 2010 addendum, all prepared by Lawrence and Associates. Phase II Closure will be conducted in accordance with the *Construction Quality Assurance Plan* contained in Appendix Q of the June 2009 *Joint Technical Document* prepared by Lawrence and Associates, as amended June 2010.

66. The Class III SWDS cap consists of a 24-inch minimum thickness foundation layer compacted to no less than 90 percent of maximum dry density, overlain by a12-inch barrier layer of clay with a hydraulic conductivity of less than 1 x 10^{-6} cm/sec, overlain by a 12-inch minimum thickness vegetation layer. The material used will be excavated from on-site borrow areas with the exception of sodium bentonite additive for the barrier layer, if it is found to be necessary. The foundation layer will be compacted to 90 percent relative compaction.

67. The final cap surface is sloped to promote drainage away from the waste footprint. The cap surface has been designed to have a minimum of three percent and a maximum of three to one slope within the limit of waste. Approximately 2,100 cubic yards of additional fill must be added to correct the slopes in Cell E. Because the SWDS slopes are less than three to one and a synthetic cover is not being used, a slope-stability report is not required. Erosion control efforts consisting of seeding the vegetative layer will occur at the end of construction.

68. Two passive landfill gas collection wells were installed in 2013 to the bottom of waste in that location. LFG-1 is in the deepest part of waste in the Phase I closure area, and LFG-2 is with the uncapped portion of Cell E. Two survey monument control points have been established off the waste footprint to the west of the SWDS, and are designated control point 1 and BM4090. The gas system and settlement monuments are shown on Attachment B.

69. A closure report prepared and certified by the Construction Quality Assurance (CQA) Officer must be submitted under penalty of perjury to the Regional Water Board and other appropriate agencies. The report, at a minimum, will include the certificate of closure; daily summary reports; material acceptance reports; final CQA documentation; laboratory testing results; field testing results; and an as-built topographic map of the capped area, prepared at a scale of one-inch to 100 feet, with a contour interval of one foot.

PROCEDURAL REQUIREMENTS AND OTHER CONSIDERATIONS

70. The Trinity County Solid Waste Division submitted the August 1998 *Initial Study for the Solid Waste Siting Element, Construction of a Transfer Station, and Changes in Landfill operations at the Weaverville Landfill,* prepared by

Lawrence and Associates, to the Trinity County Planning Department. The Negative Declaration, which included the Phase I Partial Final Closure Work, was approved by the Trinity County Planning Department in October of 1998. A second Initial study was completed for the Phase II closure. The *Initial Study and Mitigated Negative Declaration for the Phase II Closure Construction at the Weaverville Landfill,* prepared by Lawrence and Associates, were approved by Trinity County General Services in October 2010. These Negative Declarations were approved to satisfy the requirements of the California Environmental Quality Act (CEQA). The Regional Water Board, acting as a responsible agency under CEQA, has considered this Negative Declaration pursuant to title 14, California Code of Regulations, section 15096.

71. This Order implements:

    a. *The Water Quality Control Plan for the North Coast Region (Basin Plan)*; and
    b. The prescriptive standards and performance goals of California Code of Regulations, title 27, chapters 1 through 7, subdivision 1, division 2, effective July 18, 1997, and subsequent revisions.
    c. The prescriptive standards and performance criteria of the RCRA regulations in Title 40, Subtitle D, Code of Federal Regulations Part 258.

72. The Basin Plan includes water quality objectives and receiving water limitations.

73. State Water Resources Control Board Resolution No. 93-62, *Policy for Regulation of Discharges of Municipal Solid Waste*, was adopted on June 17, 1993.

74. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge, and has provided them with an opportunity to submit their written comments and recommendations.

75. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

76. The permitted discharge is consistent with the provisions of State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California.* The impact on existing water quality will be insignificant.

THEREFORE, IT IS HEREBY ORDERED that WDRs Order No. 80-193 is rescinded and General Order No. 93-83 is amended to delete County of Trinity, Weaverville Solid Waste Disposal Site, Class III Waste Management Unit. It is further ordered that the Discharger, in

order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of any waste not specifically regulated by this Order is prohibited.

2. The discharge of solid and liquid wastes at this landfill is prohibited. Water may be discharged in amounts reasonably necessary for dust control, compaction, fire control, and the establishment and maintenance of vegetation.

3. The Discharger shall not cause the concentration of any Constituent of Concern (COC) to exceed its respective concentration limit in any monitored medium. The concentration limit for each monitoring parameter shall be set at the background concentration. Data analysis shall be performed in accordance with the approved Monitoring and Reporting Program.

4. The discharge of "hazardous wastes" and "designated wastes" at this facility, as defined in California Code of Regulations, title 27 is prohibited. The discharge of leachate at this facility is prohibited.

5. The discharge of wastes, including leachate, waste-derived gas, trash, rubbish, refuse, bark, sawdust, or other solid wastes to surface waters, surface water drainage systems, or groundwater is prohibited.

6. The discharge of waste to surface waters or within 50 feet of surface waters is prohibited.

7. The discharge of wastes into ponded water from any source is prohibited.

8. Ponding of liquids, including rainfall runoff and leachate, over solid waste disposal cells is prohibited.

9. The discharge of wastes to any portion of storm water control system is prohibited.

10. The discharge of any waste in any manner not specifically described or quantified in the findings and regulated by this Order is prohibited.

11. Creation of a pollution, contamination, or nuisance, as defined by California Water Code section 13050, is prohibited.

B. GENERAL SPECIFICATIONS

1. The discharge of wastes shall not cause water quality degradation by allowing a measurably significant increase over background or baseline concentrations, as determined by either statistical or non-statistical methods in accordance with Monitoring and Reporting Program No. R1-2015-0019.

2. 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 WDRs 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) [also known as the 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. Using 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 that would occur from using one non-naturally occurring waste constituent above its MDL as a trigger.

3. Leachate collection and removal systems shall be operated so as to minimize the buildup of leachate in the landfill and to ensure that wastes in the landfill are not saturated.

4. Any leachate generated and collected at the Site shall be handled and disposed of in a manner approved by the Executive Officer of the Regional Water Board (Executive Officer).

5. Materials used to construct or to repair leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate through the systems over the closure and post-closure maintenance period. Materials shall have sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used on the landfill.

6. Surface drainage from tributary areas or internal site drainage shall not contact or percolate through wastes discharged at the Site.

7. Precipitation and drainage control systems for storm water runoff shall be designed and constructed to limit, to the greatest extent possible, ponding, inundation, erosion, slope failure, washout and overtopping from precipitation conditions of a 100-year, 24-hour storm event, and for the peak flows from a 25–year, 24-hour storm event.

8. Precipitation and drainage control systems for storm water run-on shall be designed and constructed to limit, to the greatest extent possible, ponding, inundation, erosion, slope failure, washout and overtopping from precipitation conditions of a 25-year, 10-minute storm event.

9. Surface drainage from tributary areas and internal Site drainage from surface or subsurface sources shall not contact or percolate through wastes discharged at this Site. Drainage ditches shall be located, to the maximum extent practicable, so that they do not cross over the landfill. Site drainage over the landfill shall be contained in man-made drainage conveyance structures such as corrugated metal pipe or in drainage ditches which are lined with at least one foot of compacted soil having an in-place permeability of 1×10^{-6} cm/sec or less.

10. By October 1 annually any necessary construction, maintenance, or repairs of drainage control facilities shall be completed to minimize erosion and prevent flooding at the Site. All disturbed areas shall be seeded with an appropriate vegetation mixture to minimize erosion and sedimentation. Rainfall runoff from seeded areas shall be channeled through sedimentation basins or other appropriate structures to minimize sedimentation in surface drainage courses downgradient of the Site. The Discharger shall inspect erosion control measures before (see specifics in B.10), during and after major storms or at least once a month through the wet season. Sedimentation basins and other appropriate structures shall be cleaned out during the rainy season as necessary to maintain adequate sedimentation capacity. By October 15, annually, the Discharger shall submit a report to the Executive Officer describing measures taken to comply with this provision.

11. No later than 24 hours prior to a likely rain event, the Discharger shall ensure erosion controls are functional and effective. A likely rain event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation at the Site area. The Discharger shall print and keep for record a copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the Site location at http://www.srh.noaa.gov/forecast).

C. CLOSURE SPECIFICATIONS

1. Waste Management Unit (WMU) containment structures shall be designed, constructed, and operated to prevent inundation or washout due to floods with a 100-year return period. WMU containment structures shall be constructed and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under 100-year, 24-hour precipitation conditions.

2. All WMU containment structures and erosion and drainage control systems shall be designed and constructed under the direct supervision of a California registered professional civil engineer, or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of California Code of Regulations, title 27. Designs shall include a Construction Quality Assurance Plan, the purpose of which is to:

   a. demonstrate that the structures have been constructed according to the specifications and plans approved by the Regional Water Board, and

   b. provide quality control on the material and construction practices used to construct the structures and to prevent the use of inferior products and/or materials that do not meet the approved design plans and specifications.

3. Materials used for final cover construction or repair shall have appropriate physical and chemical properties to ensure containment of wastes over the closure and post-closure maintenance period. Construction quality assurance information and as-built drawings shall be submitted to the Regional Water Board within 60 days of final cover construction or repair.

4. Final cover of the Class III WMUs shall consist of at least two feet of compacted foundation material, overlain by a one foot barrier layer of compacted clayey soil having a permeability of no greater 10^{-6} cm/sec. The barrier layer shall be overlain by a one-foot vegetative layer of native soil. Permeability of final cover shall be determined in the field and in the laboratory using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the final cover meet the permeability and compaction requirements. Final cover materials shall be designed and constructed to function with a minimum of maintenance.

5. Final cover of the Inert Cell shall consist of a minimum of 12 inches of soil, for a vegetative layer compacted at no less than 90% maximum dry density. The Inert Cell closure cap will be graded at a maximum of three to one, and the top deck will be sloped at a minimum of five percent.

6. Installation of final cover shall be under the direct supervision of a California registered professional civil engineer or certified engineering geologist. Materials and construction techniques shall meet the specifications and requirements in the final closure plan.

7. Vegetation shall be established immediately upon completion of the final cover. Vegetation shall be selected to require a minimum of irrigation and maintenance. Rooting depth shall not exceed the vegetative soil thickness.

8. Closed landfill units shall be graded to at least a three-percent grade and maintained to prevent ponding and infiltration.

9. Final cover shall conform to criteria specified in Construction Specifications contained in this Order. The Discharger shall install a sufficient number of permanent survey monuments on and near the landfill from which elevation of the disposal cells can be determined. Such monuments shall be installed by a California licensed surveyor or registered professional civil engineer.

10. Closure of each WMU shall be performed under the direct supervision of a California registered professional civil engineer or certified engineering geologist. Appropriate documents will be maintained by the Discharger, and provided at the request of the Executive Officer, to document that supervision.

11. All containment structures shall meet the general criteria set forth in California Code of Regulations, title 27, section 20320.

12. All containment structures shall meet the requirements of California Code of Regulations, title 27, sections 20310 through 20370.

D. INERT CELL OPERATION

1. The Inert Cell encompasses 2.3 acres, as shown on Attachments B, C, and D.

2. The current operation area of the Inert Cell is lined with one foot of clay with a hydraulic conductivity of less than 1×10^{-6} cm/sec, and has an 18-inch gravel operations layer.

3. The Inert Cell shall be designed, constructed, and operated to ensure wastes will be a minimum of 5 feet above the highest anticipated elevation of underlying groundwater.

4. Surface and subsurface drainage from outside the Inert Cell shall be diverted from the Inert Cell.

5. Waste acceptance shall be limited to uncontaminated soil, rock, unpainted brick, cured asphalt concrete chunks, cinder block, and concrete. Exceptions may be granted on a case-by-case basis by the Executive Officer, if the Discharger can demonstrate that the material will not decompose or have the potential to cause any water quality issues.

6. Prior to September 1 of each year, the Inert Cell will be evaluated for drainage of the waste. All grading necessary for the Inert Cell shall be completed prior to October 1.

7. No later than 24 hours prior to a likely rain event, the Discharger shall ensure the erosion controls are in place. A likely rain event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation at the Site area. The Discharger shall print and keep for record a copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the Site location at http://www.srh.noaa.gov/forecast.

E. PROVISIONS

1. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its contents.

2. The Discharger shall comply with these WDRs and the attached Monitoring and Reporting Program No. R1-2015-0019, incorporated herein by reference. A violation of the Monitoring and Reporting Program is a violation of these WDRs.

3. The Discharger shall comply with the attached General Monitoring and Reporting Provisions, which are hereby incorporated into this Order. A violation of any of the standard provisions and reporting requirements is a violation of these WDRs.

4. The Discharger may file a written request, including appropriate supporting documents, with the Executive Officer proposing modifications to Monitoring and Reporting Program No. R1-2015-0019. The Discharger shall implement any changes in the revised Monitoring and Reporting Program upon receipt from the Executive Officer of a signed copy of the revised Monitoring and Reporting Program.

5. The Discharger shall further comply with all applicable provisions of title 27 and Subtitle D not specifically referred to in this Order.

6. Leachate collection and removal systems shall be operated to prevent the buildup of leachate in the landfill and to minimize conditions of saturated garbage. Leachate removed from the landfill shall be discharged into above ground structurally sound storage tanks. Storage tanks shall have a berm or other revetment of adequate size and integrity to contain the largest potential discharge of leachate from the storage tanks.

7. The Discharger shall report as a part of each regularly scheduled monitoring report the volume of leachate collected each month since the previous monitoring report, in accordance with California Code of Regulations, title 27, section 20340(h).

8. In accordance with California Code of Regulations, title 27, section 20340(d), any leachate collection and removal system shall be tested annually to demonstrate proper operation. Results shall be compared with earlier tests made under comparable conditions. The results shall be submitted with the next regularly scheduled monitoring report. Given that the current leachate collection system is sealed and cannot directly receive the introduction of test liquids, documentation and comparison of monthly leachate flow volumes is an acceptable means to ensure that the leachate collection system is operating.

9. By October 1 annually any necessary construction, maintenance, or repairs of drainage control facilities shall be completed to minimize erosion and prevent flooding at the Site. All disturbed areas shall be seeded with an appropriate vegetation mixture to minimize sedimentation. Rainfall runoff from seeded areas shall be channeled through sedimentation basins or other appropriate structures to minimize sedimentation in surface drainage courses downgradient of the Site. The Discharger shall inspect erosion control measures before (see specifics in E.10), during and after major storms or at least once a month through the wet season. Sedimentation basins and other appropriate structures shall be cleaned out during the rainy season as necessary to maintain adequate sedimentation capacity. By October 15, annually, the Discharger shall submit a report to the Executive Officer describing measures taken to comply with this provision.

10. No later than 24 hours prior to a likely rain event, the Discharger shall ensure the erosion controls are functional and effective. A likely rain event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation at the Site area. The Discharger shall print and keep for record a copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the Site location at http://www.srh.noaa.gov/forecast.

11. Prior to any construction, the Discharger shall obtain any and all permits required under federal, state, or local laws.

12. During times of active closure construction or any periods of repair to the waste containment, drainage, or monitoring facilities, legible copies of the daily CQA field notes and summary reports shall be submitted to the Regional Water Board via facsimile at (707) 523-0135 or email to Gina.Morrison@waterboards.ca.gov by noon the following weekday. The document shall be addressed to the Regional Water Board, Land Disposal Unit, and include the name of the staff person assigned to the Site.

13. A closure report prepared and certified by the Construction Quality Assurance (CQA) Officer shall be prepared and submitted, under penalty of perjury, to the Regional Water Board and other appropriate agencies in accordance with California Code of Regulations, title 27, sections 20324(c), 20324(d), and 21880. The report, at a minimum, shall include the certificate of closure; daily summary reports; material acceptance reports; final CQA documentation; laboratory testing results; field testing results; and an as-built topographic map of the capped area, prepared at a scale of one-inch to 100 feet, with a contour interval of one foot.

14. By January 2016 the Discharger shall produce and submit to the Regional Water Board an iso-settlement map accurately depicting the estimated total change in elevation of the final cover's low-hydraulic-conductivity layer for the Phase I Closure Area. By January 2022, and at least every five years thereafter, the Discharger shall produce and submit to the Regional Water Board an iso-settlement map accurately depicting the estimated total change in elevation of the final cover's low-hydraulic-conductivity layer for the entire Class III SWDS footprint (both the Phase I and Phase II closure areas). For each portion of the landfill that is closed at the time of iso-settlement mapping, this iso-settlement map shall show the total lowering of the surface elevation of the final cover, relative to the baseline topographic map submitted in the original Closure Report for that phase of closure, and shall indicate all areas where visually noticeable differential settlement may have been obscured by grading operations. The map shall be drawn to the same scale and contour interval as the topographic map in the Closure Report for that phase of closure, but showing the current topography of the final cover, and featuring overprinted isopleths indicating the total settlement to date. Land surveying rather than aerial surveying may be substituted to produce the iso-settlement map [Cal. Code Regs., tit. 27, § 21090(e)(2)]. This map shall be made by, or under the direction of, a professional civil engineer or certified engineering geologist and shall be stamped and signed.

15. The Discharger shall note on a map of the landfill the approximate location and outline of any areas where differential settlement is visually obvious prior to conducting periodic grading operations on the closed landfill. [Cal. Code Regs., tit. 27, § 21090(e)(4).] This information shall be included in the Annual Monitoring Report as well as each five-year iteration of the iso-settlement map. The map shall show all areas where differential settlement has been noted since the previous

map submittal, and shall highlight areas of repeated or severe differential settlement. Map notations and delineations made pursuant to this paragraph need not be surveyed, so long as all areas where differential settlement was visually identifiable prior to regradings can be relocated. Such notation and delineation shall be made by, or under the supervision of, a California registered professional civil engineer or registered geologist.

16. Throughout the post closure maintenance period, the Discharger shall [Cal. Code Regs., tit. 27, § 21090(c)]:

    a. maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement or other adverse factors;
    b. continue to operate the leachate collection and removal system as long as leachate is generated and detected;
    c. continue to operate and maintain the passive gas ventilation well as long as gas is generated and detected;
    d. maintain monitoring systems and monitor the ground water, surface water, and the unsaturated zone in accordance with applicable requirements of Article 1, Chapter 3, Subchapter 3, Subdivision 1 (Cal. Code Regs., tit. 27, § 20380 *et seq*.);
    e. prevent erosion and related damage of the final cover due to drainage; and
    f. protect and maintain surveyed monuments.

17. The Discharger shall provide proof to the Regional Water Board within sixty days after completing final closure that the deed to the landfill facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:

    a. the parcel has been used as a municipal solid waste landfill;
    b. land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the landfill; and
    c. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, the responsibility for carrying out such work falls to the property owner.

18. The Discharger shall obtain and maintain adequate assurances of financial responsibility for closure, post closure maintenance, and corrective action for all known and reasonably foreseeable releases from a WMU at the facility in accordance with California Code of Regulations, title 27, sections 20380(b), 20950, 22210, 22211, 22212, 22220, 22221, and 22222.

19. By January 15, 2020, 2025, and every five years thereafter, for the term of this permit, the Discharger shall provide as part of the Annual Monitoring Report an updated post-closure costs and corrective action cost estimate to the Regional Water Board for review. The Discharger shall demonstrate to the CalRecycle and report to the Regional Water Board that it has established an acceptable financial assurance mechanism described in California Code of Regulations, title 27, section 22228 in at least the amount of the cost estimate approved by the Executive Officer. The Executive Officer may delete the requirement of submitting updated cost estimates, with the exception of inflation adjustments, upon finding that the need for further corrective action is unlikely and that post-closure costs are likely to remain constant.

20. The Discharger is required to update approved cost estimates annually to account for inflation, in accordance with California Code of Regulations, title 27, section 22236.

21. The Discharger shall maintain an emergency response plan as required in California Code of Regulations, title 27, section 21860.

22. In the event that the Regional Water Board determines that the Discharger has failed to pay or is failing to perform corrective action as required by law, the Regional Water Board may request that CalRecycle direct the Discharger to pay from the pledged revenue such amounts as are necessary to ensure sufficient corrective action. The Discharger shall be obligated to use such funds for corrective action in accordance with the directive of the Regional Water Board.

23. The Discharger shall maintain waste containment facilities and precipitation and drainage control systems throughout the post-closure maintenance period. The Discharger shall immediately notify the Regional Water Board of any flooding, equipment failure, slope failure, or other change in Site conditions that could impair the integrity of waste or leachate containment facilities or of precipitation and drainage control structures.

24. The Discharger shall continue to monitor each WMU, surface drainage, and underlying medium throughout the post-closure maintenance period, per Monitoring and Reporting Program No. R1-2015-0019. Monitoring shall continue until the Regional Water Board determines that the Site no longer threatens water quality.

25. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with Monitoring and Reporting Program No. R1-2015-0019, as required by Sections 13750 through 13755 of the California Water Code.

26. Monitoring points and Points of Compliance for groundwater, leachate, and landfill gas shall be as listed in the Monitoring and Reporting Program No. R1-2015-0019 for the Site. Potential leachate seeps, if encountered, shall be sampled in accordance with Monitoring and Reporting Program No. R1-2015-0019.

27. The Discharger shall provide Regional Water Board staff a minimum of **one week** notification prior to commencing any field activities related to the installation, repair, or abandonment of monitoring devices, and a minimum 48 hour notification prior to the collection of samples associated with a detection monitoring program, evaluation monitoring program, or corrective action program.

28. The Water Quality Protection Standard for organic compounds which are not naturally occurring and not detected in background groundwater samples shall be taken as the detection limit of the analytical method used (i.e., US EPA Methods 8260 and 8270). The repeated detection of one or more non-naturally occurring organic compounds in samples above the Water Quality Protection Standard from detection monitoring wells is evidence of a release from the WMU.

29. For any given monitored medium, the samples taken from all monitoring points and background monitoring points to satisfy the data analysis requirements for a given reporting period shall all be taken **within a span not to exceed 15 days**, unless a longer time period is approved, and shall be taken in a manner that ensures sample independence to the greatest extent feasible. Specific methods of collection and analysis must be identified. Sample collection, storage, and analysis shall be performed according to the most recent version of US EPA Methods, such as the latest editions, as applicable, of: (1) Methods for the Analysis of Organics in Water and Wastewater US EPA 600 Series), (2) Test Methods for Evaluating Solid Waste (SW-846, latest edition), and (3) Methods for Chemical Analysis of Water and Wastes (US EPA 600/4-79-020), and in accordance with the approved Sample Collection and Analysis Plan.

30. If methods other than US EPA-approved methods or Standard Methods are used, the exact methodology shall be submitted for review and approval prior to use.

31. The **methods of analysis and the detection limits** used must be appropriate for the expected concentrations. For the monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., "trace" or "ND") in data from background monitoring points for that medium, the analytical method having the lowest method detection limit (MDL) shall be selected from among those methods which would provide valid results in light of any matrix effects or interferences.

32. **"Trace" results** - results falling between the MDL and the practical quantitation limit (PQL) - shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run.

33. **MDLs and PQLs** shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being quoted from US EPA analytical method manuals. In relatively interference-free water, laboratory-derived MDLs and PQLs are expected to closely agree with published US EPA MDLs and PQLs.

34. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived MDL/PQL values, the results shall be flagged accordingly, along with estimates of the detection limit and quantitation limit actually achieved. The **MDL shall always be calculated such that it represents the lowest achievable concentration associated with a 99% reliability of a nonzero result**. The PQL shall always be calculated such that it represents the lowest constituent concentration at which a numerical value can be assigned with reasonable certainty that it represents the constituent's actual concentration in the sample. Normally, PQLs should be set equal to the concentration of the lowest standard used to calibrate the analytical procedure.

35. All **QA/QC data** shall be reported, along with the sample results to which they apply, including the method, equipment, analytical detection and quantitation limits, the percent recovery, an explanation for any recovery that falls outside the QC limits, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recoveries. The accompanying sample results shall be appropriately flagged in cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks).

36. Unknown chromatographic peaks shall be reported, flagged, and tracked for potential comparison to subsequent unknown peaks that may be observed in future sampling events. Identification of unknown chromatographic peaks that recur in subsequent sampling events may be required.

37. The statistical method shall account for data below the practical quantitation limit (PQL) with one or more statistical procedures that are protective of human health and the environment. Any PQL validated pursuant to California Code of Regulations, title 27, section 20415(e)(7) that is used in the statistical method shall be **the lowest concentration (or value) that can be reliably achieved** within limits of precision and accuracy specified in the WDRs for routine

laboratory operating conditions that are available to the facility. The Discharger's technical report, pursuant to California Code of Regulations, title 27, section 20415(e)(7), shall consider the PQLs listed in Appendix IX to Chapter 14 of Division 4.5 of California Code of Regulations, title 22, for guidance when specifying limits of precision and accuracy. For any given constituent monitored at a background or downgradient monitoring point, an indication that falls between the MDL and the PQL for that constituent (hereinafter called "trace" detection) shall be identified and used in appropriate statistical or nonstatistical tests. Nevertheless, for a statistical method that is compatible with the proportion of censored data (trace and ND indications) in the data set, the Discharger can use the laboratory's concentration estimates in the trace range (if available) for statistical analysis, in order to increase the statistical power by decreasing the number of "ties".

38. If the Discharger determines that there is measurably significant evidence of a release from the WMUs, as defined in California Code of Regulations, title 27, section 20164 the Discharger:

    a. shall immediately notify the Regional Water Board verbally and take all necessary corrective actions. Written notification by certified mail shall be provided within 7 days of occurrence. [Cal. Code Regs., tit. 27, §20420(j)(1)]
    b. can immediately initiate the verification procedure pre-approved by the Regional Water Board to verify the release. [Cal. Code Regs., tit. 27, § 20420(j)(2)]

39. Immediately following detection of a release, or after completion of the retest, the Discharger:

    a. Shall immediately sample all Monitoring Points in the affected medium at the WMUs and determine the concentration of all COCs. [Cal. Code Regs., tit. 27, § 20420(k)(1)]
    b. Within 90 days of determining measurably significant evidence of release, submit an amended ROWD to establish an evaluation monitoring program, in accordance with California Code of Regulations, title 27, section 20420(k)(5).
    c. Within 180 days of verifying measurably significant evidence of a release from a WMU, submit an engineering feasibility study for a corrective action program. The corrective action program shall, at a minimum, meet the requirements of California Code of Regulations, title 27, section 20430. [Cal. Code Regs., tit. 27, §20420(k)(6)]

40. The Regional Water Board may make an independent finding that there is a measurably significant evidence of release. The Regional Water Board shall send written notification of such a determination to the Discharger by certified mail, return receipt requested. The Discharger shall comply with all provisions of

California Code of Regulations, title 27, section 20420 and Provisions in this Order that are required in response to a measurably significant evidence of release.

41. The Discharger shall report to the Regional Water Board by certified mail the results of both the initial statistical test and the results of the verification procedure, as well as all concentration data from samples collected for use in these tests within seven days of the last laboratory analysis of the samples collected for the verification procedure. [Cal. Code Regs., tit. 27, §20415(e)(8)(E)(6)]

42. If the Discharger verifies that there has been a measurably significant release from the WMUs, the Discharger may demonstrate that a source other than the WMUs caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis or the data analysis protocol. [Cal. Code Regs., tit. 27, §20420(k)(7)] The Discharger may make this demonstration in addition to or in lieu of submitting an amended ROWD and an engineering feasibility study pursuant to California Code of Regulations, title 27, section 20420(k)(5) and California Code of Regulations, title 27, section 20420(k)(6). The Discharger is not relieved of the requirements specified in California Code of Regulations, title 27, Sections 20420(k)(5) and (k)(6) unless the demonstration report is accepted by the Executive Officer. In making a demonstration, the Discharger shall:

    a. Within 7 days of determining measurably significant evidence of a release, submit a report to the Regional Water Board by certified mail stating that the Discharger intends to make a demonstration pursuant to California Code of Regulations, title 27, section 20420(k)(7)(A).
    b. Within 90 days of determining measurably significant evidence of a release, submit a report to the Regional Water Board that demonstrates that a source other than the WMU caused the apparent release. [Cal. Code Regs., tit. 27, §20420(k)(7)(B)]
    c. Within 90 days of determining measurably significant evidence of a release, submit an amended ROWD to make any appropriate changes to the detection monitoring program. [Cal. Code Regs., tit. 27, §20420(k)(7)(C)]

43. If the Discharger determines that there is significant physical evidence of a release, as described in California Code of Regulations, title 27, section 20385(a)(3) or that the detection monitoring program does not meet the requirements of California Code of Regulations, title 27, section 20420, the Discharger shall:

    a. notify the Regional Water Board by certified mail within 7 days of such a determination [Cal. Code Regs., tit. 27, §20420(l)(1)]; and
    b. within 90 days of such a determination, submit an amended ROWD to the Regional Water Board to make any appropriate changes to the program [Cal. Code Regs., tit. 27, §20420(1)(2)]

44. Any time that the Regional Water Board determines that the detection monitoring program does not satisfy the requirements of California Code of Regulations, title 27, section 20420 the Regional Water Board shall send written notification of such a determination to the Discharger by certified mail, return receipt requested. The Discharger shall, within 90 days after receipt of notification by the Regional Water Board, submit an amended ROWD to make any appropriate changes to the program. [Cal. Code Regs., tit. 27, §20420(m)]

COMPLIANCE TIME SCHEDULE

45. Pursuant to Section 13267(b) of the California Water Code, the Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. R1-2015-0019, in accordance with the following time schedule:

Action	**Compliance Date**
The Discharger shall submit a work plan for the installation of new groundwater well(s)	November 1, 2015
The Discharger shall submit a completion report for the monitoring system changes.	November 1, 2016
The Discharger shall prepare an iso-settlement map of the Phase I Closure Area per Provision No. 14.	January 15, 2016
The Discharger shall prepare an iso-settlement map of the Phase I and II Closure Areas per Provision No. 14.	January 15, 2022 and every five years thereafter
The Discharger shall submit a revised Sample Collection and Analysis Plan	January 31, 2017
The Discharger shall submit the Certification of Closure (Cal. Code Regs, tit. 27, § 21880) for the Class III SWDS within 180 days of the completion of construction activities, but no later than the compliance date shown.	March 31, 2018

46. The Discharger shall notify the Regional Water Board in writing of any proposed change of ownership or responsibility for construction, operation, closure or post-closure maintenance of the WMU. This notification shall be given prior to the effective date of the change, and shall include a statement by the new Discharger that construction, operation, closure, and post-closure maintenance will be performed in compliance with any existing WDRs and any revisions thereof. The Regional Water Board shall amend the existing WDRs to name the new Discharger.

47. After notice and opportunity for hearing, this Order may be terminated or modified for cause, including but not limited to:

    a. violation of any term or condition in this Order;
    b. obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts; or
    c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

48. The Discharger shall remove and relocate any wastes discharged at this Site in violation of this Order.

49. Severability

    Provisions of these WDRs are severable. If any provision of these requirements is found to be invalid, the remainder of these requirements shall not be affected.

50. Operation and Maintenance

    The Discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the Discharger to achieve compliance with the WDRs.

51. Change in Discharge

    The Discharger shall promptly report to the Regional Water Board any material change in the character, location, or volume of the discharge.

52. Signatory Requirements

    a. All applications, reports, or information submitted to the Regional Water Board Executive Officer shall be signed by either a principal executive officer, ranking elected official, or a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:

        i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
        ii. the manager of one or more manufacturing, production, or operating facilities, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. Reports required by this Order, other information requested by the Regional Water Board may be signed by a duly authorized representative provided:

   i. The authorization is made in writing by a person described in paragraph (a) of this provision;
   ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   iii. the written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative.

c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

53. Change in Ownership

In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the following items by letter, a copy of which shall be forwarded to the Regional Water Board:

a. existence of this Order, and
b. the status of the Discharger's annual fee account.

54. Vested Rights

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the

Discharger from his liability under federal, state, or local laws, nor create a vested right for the Discharger to continue the waste discharge.

55. Inspections

The Discharger shall permit authorized staff of the Regional Water Board:

a. entry upon premises in which a waste source is located or in which any required records are kept;
b. access to copy any records required to be kept under terms and conditions of this Order;
c. to inspect monitoring equipment or records; and
d. to sample any discharge.

56. Noncompliance

In the event the Discharger is unable to comply with any of the conditions of this Order due to:

a. breakdown of waste treatment equipment;
b. accidents caused by human error or negligence; or
c. other causes such as acts of nature;

the Discharger shall notify the Executive Officer by telephone as soon as it or its agents have knowledge of the incident and shall confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance, and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

57. Accidental Spills and Incident Reporting

The Discharger shall provide and comply with its Emergency Response Plan for any accidental spill or incident (Cal. Code Regs., tit. 37, § 21132). The Discharger shall immediately report the incident of unintentional or accidental spills and diligently act to abate the effects of the discharge. Written confirmation of the incident is required within two weeks of the discharge. Emergency Response Plans shall be reviewed, updated, and submitted to the Regional Water Board by October 2017, 2022, and every five years thereafter.

58. Monitoring

The Discharger shall comply with the Monitoring and Reporting Program No. R1-2015-0019 and any modifications to this document as specified by the Executive Officer. The document is attached to this Order and incorporated herein. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.

General Monitoring and Reporting Provisions require sampling and analysis performance criteria in addition to compliance reporting criteria and timeframes.

59. Revision of Requirements

The Regional Water Board will review this Order periodically and may revise requirements when necessary.

60. This Regional Water Board requires the Discharger to file a ROWD at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

Certification

I, Mathias St. John, 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, North Coast Region, on June 18, 2015.

David F. Leland for

Digitally signed by David F. Leland
Date: 2015.06.22 16:03:14 -07'00'

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Matthias St. John
Executive Officer