

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2015-0081

WASTE DISCHARGE REQUIREMENTS  
FOR  
NORTHERN RECYCLING, LLC  
NORTHERN RECYCLING COMPOST - ZAMORA  
YOLO COUNTY

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

1. Northern Recycling, LLC (hereafter, "Discharger") owns and operates the Northern Recycling Compost - Zamora facility (hereafter, "facility"), a composting facility in Yolo County. The facility began operating in 2001 under a general conditional waiver of waste discharge requirements for green waste composting (Order No. 96-031). The facility was owned and operated by Grover Landscape Services from 2001 until 2008. The facility property was formerly a livestock feedlot until 1998 and contains five ponds that were formerly used for manure storage.
2. The facility is located at 11220 County Road 94 in Zamora.
3. As shown in Attachment A, which is incorporated herein and made part of this Order by reference, the facility is on a portion of a 104.52-acre parcel in Section 29, T11N, R1E, MDB&M, corresponding to Assessor's Parcel Number 55-200-04.
4. On 14 January 2013, the Discharger submitted a Report of Waste Discharge (ROWD) to obtain individual waste discharge requirements (WDRs) in order to expand the area of the facility and to accept additional feedstocks (primarily food waste), but the expansion plans have been withdrawn. The Discharger no longer proposes to expand the area of the facility from 56 acres. Instead, the Discharger proposes to continue composting green waste from residential and commercial sources using various windrow composting methods on compacted soil pads with hydraulic conductivity of  $1 \times 10^{-5}$  centimeters per second (cm/s) or less. In the ROWD, the Discharger proposed to construct one-foot thick compacted soil pads with hydraulic conductivity of  $1 \times 10^{-6}$  cm/s or less for the composting and storage areas. The  $1 \times 10^{-6}$  hydraulic conductivity requirement was requested to be revised by the Discharger due to draft regulations of the statewide composting general order requiring  $1 \times 10^{-5}$  cm/s, and this order requires the composting and storage area pads to be constructed to meet the  $1 \times 10^{-5}$  cm/s hydraulic conductivity requirement.
5. The Discharger will construct one composite-lined runoff Retention Pond and one composite-lined Detention Basin for leachate and contact water drainage from the pad areas, and one composite-lined Overflow Pond for additional storage capacity when needed. The Overflow Pond will be constructed in the area of one of the former manure

storage ponds. The proposed site plan is shown in Attachment B, which is incorporated herein and made part of this Order by reference.

6. Solid Waste Facility Permit (Facility No. 57-AA-0029) for this activity with the Yolo County Environmental Health Department.
7. The Discharger has permits from the Yolo-Solano Air Quality Management District for stationary equipment sources that include a Permit to Operate P-64-09(a1) for a pilot-scale covered aerated static pile (ASP) system. The permit allows up to 30 tons per day of green waste and with up to 40% food waste (12 tons per day of food waste) to be composted using the pilot-scale covered ASP system. The permit also allows grape pomace to be accepted for composting three consecutive months of the year (starting on the first day it is accepted). The ROWD states that the Discharger will apply for additional air permits for the facility expansion. However, the facility expansion plans have been withdrawn and the ASP system will not be expanded.
8. The Discharger has coverage under the general Industrial Storm Water Permit 97-03-DWQ under WDID #5S57I023540, and has a Storm Water Pollution Prevention Plan (SWPPP) for the current composting operation. The new Industrial General Permit 2014-0057-DWQ (IGP) becomes effective on 1 July 2015, and the Discharger will be required to obtain coverage under this new permit.

### **WASTES AND THEIR CLASSIFICATION**

9. The Discharger currently uses or accepts the following feedstocks, additives, and amendments for composting:
  - a. Water from the onsite water supply well.
  - b. Water from the onsite ponds.
  - c. Green waste.
  - d. Food waste with small amounts of paper waste (up to 12 tons per day to the pilot-scale covered ASP system).
  - e. Grape pomace (three consecutive months per year).
  - f. Plant wastes.
  - g. Plant material from agricultural sources such as orchards, crop residues, and rice hulls.
  - h. Untreated wood wastes and oversized wood material (generally processed and sent to biomass power plants).
  - i. Animal bedding and manure.
  - j. Gypsum (primarily from gypsum wallboard).
  - k. Lime.
  - l. Agricultural minerals.

10. The Discharger proposes to accept the following additional feedstocks for composting after site upgrades are completed:
  - a. Non-recyclable paper.
  - b. Waxed cardboard.
  - c. Anaerobic digestion digestate.
  - d. Compostable plastics.
  
11. The Discharger proposes to accept or use the following additional additives or amendments for composting after site upgrades are completed:
  - a. Wood chips.
  
12. California Code of Regulations, title 27 ("Title 27"), section 20005 et seq. establishes a waste classification system. Wastes are classified as either inert wastes, nonhazardous solid wastes, or designated wastes. Inert wastes pose minimal risk to water quality, nonhazardous solid wastes present a greater risk than inert wastes, and designated wastes pose the greatest risk to water quality. The wastes specified in Findings 9 through 11 would generally meet the definition of nonhazardous solid wastes when discharged to a Class III municipal solid waste landfill that accepts only inert and nonhazardous wastes. Title 27, section 20200(a)(1) allows the Central Valley Water Board to find that, "...a particular waste constituent or combination of constituents presents a lower risk of water quality degradation than indicated by classification according to this article." Therefore, to the extent that a particular compostable waste, additive, or amendment, as specified in Finding 9 through 11, could be characterized as designated waste, such waste types will be regulated as a nonhazardous solid waste under this Order pursuant to Title 27, section 20200(a)(1) because the wastes present a lower risk to water quality than typical designated wastes when managed as required by this Order.
  
13. The key requirements of this Order include the construction of compacted soil pads with hydraulic conductivity of  $1 \times 10^{-5}$  cm/s or less; and composite-lined Retention Pond, Detention Basin, and Overflow Pond. These requirements are as proposed by the Discharger in the ROWD. The attached Monitoring and Reporting Program (MRP) additionally requires quarterly monitoring of the Retention Pond, Detention Basin, and Overflow Pond when liquids are present in the ponds. The Central Valley Water Board may revise this Order with more stringent requirements if monitoring indicates the threat to water quality is greater than expected.

## **SITE DESCRIPTION**

14. The site is located about one mile south of the town of Zamora and about one mile west of Interstate 5 at the base of the Dunnigan Hills that lie immediately to the west of the site. The site is generally flat with the surrounding area sloping from west to east. The natural elevation of the site is approximately 80 to 85 feet above mean sea level (MSL).

Smith Creek is to the south of the facility boundary and runs through the parcel on which the facility is located as shown on Attachment B.

15. Land uses within 1,000 feet of the facility are agricultural and include orchards and vineyards to the north and east, and livestock grazing to the west and south. A residence is located approximately 1,200 feet south of the proposed expanded facility boundary and 600 feet south of the parcel boundary.

### **SITE GEOLOGY**

16. According to the ROWD, the site is located on the western limit of the Sacramento Valley adjacent to the Dunnigan Hills. Soils beneath the site are mapped as silt-clay loam of the Tehama Group on the western portion of the site, gravelly loam of the Corning Group on the western portion of the site, and clay of the Sehorn Group in the southeastern portion of the site along Smith Creek. Onsite soils have a moderate infiltration rate and are well drained. The surface soils are slightly weak, porous, and compressible and exhibit randomly arrayed desiccation cracks generally associated with expansive soils. Laboratory tests on surface soils achieved permeabilities of between  $10^{-7}$  and  $10^{-8}$  cm/s.

### **PRECIPITATION**

17. The facility receives an average of 17.94 inches of precipitation per year as measured at the Woodland 1 MNM gauge between the years 1873 and 2001. The gauge is located about 8 miles from the site. The 25-year, 24-hour storm event for the site is 3.98 inches and the 100-year, 24-hour event is 5.02 inches based on data obtained online from the National Oceanic and Atmospheric Administration. The mean pan evaporation is 82.68 inches per year based on data from the Western Regional Climate Center.
18. According to the ROWD, the facility is not within the 100-year floodplain based on the 18 June 2010 Floodplain Map No. 06113C0275G issued by the Federal Emergency Management Agency.

### **GROUNDWATER AND SURFACE WATER**

19. There is one onsite water supply well located near the entrance to the facility that was installed in 1971. The well is used for industrial purposes only, primarily as the water source for the composting operation. According to the driller's report, groundwater was first encountered at a depth of 60 feet below ground surface (bgs) and then rose to 47 feet bgs upon development of the well. The highest recorded groundwater elevation in the closest Department of Water Resources well to the site is 35 feet bgs.
20. The beneficial uses of groundwater, as specified in *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin

Plan), are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

21. The ROWD contains groundwater quality data from the onsite supply well that indicates groundwater has been impacted with nitrate from the former livestock feedlot and former manure storage ponds at the site. A sample from the well in 2008 showed nitrate as nitrogen at 9.8 milligrams per liter (mg/L) which is just below the Maximum Contaminant Level (MCL) of 10 mg/L. Five samples collected in 2011 and 2012 had concentrations of nitrate as NO<sub>3</sub> ranging from 38 to 62 mg/L. The MCL for nitrate as NO<sub>3</sub> is 45 mg/L.
22. The ROWD contains a 27 April 2012 *Water Supply Assessment* in Appendix C to assess whether the onsite supply well has capacity for the anticipated water to be used at the expanded facility. The current water usage is 6 million gallons per year. The report concludes that the supply well has sufficient capacity for the facility.
23. Surface water from the facility currently drains to unlined retention ponds. This Order requires that the Retention Ponds, Detention Basin, and Overflow Pond will be lined. This Order requires at least two feet of freeboard to be maintained in the Retention Ponds, Detention Basin, and Overflow Pond at all times.
24. The Discharger has coverage under the General NPDES Permit for industrial activities (NPDES General Permit No. 97-03-DWQ). The new Industrial General Permit 2014-0057-DWQ (IGP) becomes effective on 1 July 2015, and the Discharger will be required to obtain coverage under this new permit.
25. Runoff containing leachate cannot be discharged under the IGP. The IGP only allows discharges of storm water from areas where Best Management Practices (BMPs) are being implemented such as covering the compost piles and preventing contact of storm water with wastes. Surface water in the surrounding area drains to the Colusa Basin Drain, then into the Yolo Bypass, then into the Port of Sacramento Deep Water Ship Channel, and then to the Sacramento River just north of Rio Vista.
26. The designated beneficial uses of the Colusa Basin Drain, as specified in the Basin Plan, are agricultural supply; water contact recreation; warm fresh water habitat; spawning, reproduction, and/or early development; migration of aquatic organisms; and wildlife habitat.

### **PROPOSED FACILITY CONSTRUCTION AND IMPROVEMENTS**

27. The ROWD contains a 14 November 2012 geotechnical study report in Appendix C that has information on engineering properties of site soils and recommendations for design parameters for construction of site containment features. The study reports soils information from test pits and borings from studies in the existing and expansion areas conducted in 2009 and 2012. Based on the results of the study, the report recommends the removal and replacement of 1 to 3 feet of existing weak, porous, compressible

clayey surface soils and heterogeneous fill in the pad and pond areas; improvements to the stability of the existing pond slopes and embankments; and the construction of liners in the pond bottoms due to the permeability of the existing soils.

28. **Pads for Composting and Storage Areas.** In the ROWD, the Discharger proposed to construct one-foot thick compacted soil pads with hydraulic conductivity of  $1 \times 10^{-6}$  cm/s or less for the composting and storage areas. The  $1 \times 10^{-6}$  hydraulic conductivity requirement was requested to be revised by the Discharger due to draft regulations of the composting general order requiring  $1 \times 10^{-5}$  cm/s, and this order requires the composting and storage area pads to be constructed to meet the  $1 \times 10^{-5}$  cm/s hydraulic conductivity requirement. The pads will be sloped a minimum of one percent for drainage and will be protected from desiccation. The pad surface, the one-foot compacted soil layer, and pad subgrade will be constructed in such a way as to allow equipment to operate without damage. The areas to receive this pad design are shown on Attachment B as follows:
- a. Windrow, curing, processing, or compost storage areas.
  - b. Finished compost screening and storage areas.
  - c. Green waste processing and/or storage area.
  - d. Tipping area.
29. **Retention Pond, Detention Basin, and Overflow Pond.** The Discharger proposes to construct three new composite-lined ponds (Retention Pond, Detention Basin, and Overflow) to collect contact water from the composting and storage areas, as shown on Attachment B. The composite liner system for each of the ponds will consist of a 40-mil geomembrane (60-mil if high-density polyethylene [HDPE]) immediately overlying a one-foot compacted soil layer with hydraulic conductivity of  $1 \times 10^{-6}$  cm/s or less (or a geocomposite clay liner [GCL]). The liner system will be installed over a prepared base after removal of existing inferior soils as recommended in the geotechnical study report. This Order requires a pan lysimeter monitoring device installed under the lowest point of each pond.
30. This Order requires the Discharger to construct the proposed compost pads and pond liner systems by 1 December 2016 and prior to accepting the additional feedstocks for composting. This Order also requires that the Discharger submit a design report and Construction Quality Assurance (CQA) Plan for construction of the composting pads and pond liners and to submit a final construction report and CQA report documenting that they were constructed as required following construction.
31. Prior to construction, this Order requires that the Discharger obtain coverage under the General NPDES Permit for construction activities (Order 2009-0009-DWQ) and to prepare a SWPPP for construction activities.

## POND CAPACITY AND WATER BALANCE

32. The Discharger proposes to construct the Retention Pond and Detention Basin with capacity for a 25-year, 24-hour storm event. The one Overflow Pond will have additional capacity for average annual rainfall, plus a 100-year, 24-hour storm event. This Order requires all ponds to be designed and operated to manage all wastewater and precipitation from a minimum 25-year return annual total precipitation value distributed monthly in accordance with the average (mean) precipitation values<sup>1</sup> and to maintain at least two feet of freeboard at all times.
33. The ROWD contains water balance calculations for the ponds in Appendix C. The water balance includes components for evaporation and for water usage for composting from 16 April through 15 November of each year. The water balance calculations show that the ponds will have capacity for the average annual rainfall, plus a 100-year, 24-hour storm event. The water balance model results do not meet the requirements of this Order to contain the 25-year return annual total precipitation value distributed monthly in accordance with the average (mean) precipitation values. The Discharger shall submit a revised water balance model that meets the requirements of this Order. The facility drainage ditches will be designed for a 25-year, 24-hour storm event.

## CEQA AND OTHER LEGAL REFERENCES

34. A Mitigated Negative Declaration was certified by Yolo County on 5 December 2000 in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Mitigated Negative Declaration describes the project as the operation of the existing composting facility. Compliance with this Order will prevent significant impacts to water quality.
35. This Order implements:
  - a. The Basin Plan.
  - b. State Water Resources Control Board (State Water Board) Resolution 68-16, the *Policy with Respect to Maintaining High Quality Waters of the State*.
36. Based on the threat and complexity of the discharge, the facility is determined to be classified 2-C 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

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<sup>1</sup> Climate data may be found from the Department of Water Resources Flood Management website at [http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate\\_data/](http://www.dwr.water.ca.gov/floodmgmt/hafoo/csc/climate_data/) under *Precipitation*, then *Monthly Historical Rain Data*. Distribute the *SUM* value for *RP 25* by month by using the *Average* values percent breakdown by month.

violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.

- b. Category C complexity, defined as, “Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 or the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.”
37. California Water Code (CWC) section 13267 states, in part, “(a) *A regional board, in establishing...waste discharge requirements... may investigate the quality of any waters of the state within its region*” and “(b) (1) *In conducting an investigation..., the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state 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. In requiring these reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify evidence that supports requiring the person to provide the reports.*”
  38. The technical reports required by this Order and the attached Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. Northern Recycling, LLC is responsible for the discharges of waste at the facility subject to this Order and are, therefore, subject to CWC Section 13267(b).
  39. Section 402 of the Clean Water Act [33 U.S.C. §1342(p)] and regulations adopted by the U.S. Environmental Protection Agency (40 CFR §122.26) require that facilities which discharge storm water associated with industrial activity be regulated by a National Pollutant Discharge Elimination System (NPDES) permit. The State Water Board has adopted a General NPDES Permit for industrial activity (NPDES General Permit No. 97-03-DWQ). The new Industrial General Permit 2014-0057-DWQ becomes effective on 1 July 2015, and the Discharger will be required to obtain coverage under this new permit. Accordingly, composting operations are included in Standard Industrial Classifications 2875 and 2879. Persons engaged in mixing fertilizers from purchased fertilizer materials (2875) or in manufacturing soil conditioners (2879) must, as a condition of this Order, obtain coverage and comply with the conditions of that General Permit.

## PROCEDURAL REQUIREMENTS

40. 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.
41. 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.
42. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
43. 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 CWC 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 the 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.

**IT IS HEREBY ORDERED**, pursuant to California Water Code sections 13263 and 13267, that Northern Recycling, LLC and its agents, assigns and successors, 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. DISCHARGE PROHIBITIONS

1. The discharge of wastes defined as "hazardous" at the facility, is prohibited. For the purposes of this Order, the term "hazardous" is as defined in Title 27.
2. The discharge of wastes defined as "designated" at the facility, is prohibited except for the feedstocks, additives, and amendments cited in Findings 9 through 11 of this Order. For the purposes of this Order, the term "designated" is as defined in Title 27.
3. The discharge of wastes, feedstocks, additives, or amendments that are not listed in Findings 9 through 11 of this Order is prohibited.

4. Any volume of any feedstock, additive, amendment, or compost (active, curing, or final product) exceeding those specified in this Order is prohibited.
5. Use of any feedstock, additive, amendment, or material, other than those described in this Order is prohibited.
6. Landfilling of any waste at the facility is prohibited.
7. Storage, processing, or composting of green/food waste outside of the storage, processing, and composting pad areas as shown on Attachment B, and as defined in Facility Specification C.4, is prohibited.
8. The discharge of liquid waste at the facility, other than runoff or leachate from storage, composting, or processing to the Retention Pond, Detention Basin or Overflow Pond as shown on Attachment B is prohibited.
9. Ponding of liquids on the composting pad areas, as defined in Facility Specification C.4 below, is prohibited.
10. The discharge or storage of drilling mud; biosolids; non-compostable plastic; glass; metal; waste edible oil, petroleum oil, or grease; mixed solid waste; wood containing lead-based paint, wood preservative, or ash from such wood; construction and demolition debris; asbestos; animal carcasses; liquid wastes other than those of food origin; medical wastes as defined in the Health and Safety Code section 117690; septage; sludge, including but not limited to sewage sludge, water treatment sludge, and industrial sludge; wastes classified as "designated" as defined in Water Code section 13173; or wastes classified as "hazardous" as defined in California Code of Regulations, title 22, section 66261.3 at the facility is prohibited.
11. Discharges of feedstocks, additives, amendments, or wastes to lands not owned, leased, or otherwise controlled by the Discharger for the purposes of composting is prohibited.
12. Discharge of wastes to surface waters is prohibited, except as authorized by an NPDES permit.
13. Discharge of wastes including overflow, wastewater, or bypass from transport, treatment, storage, or disposal systems to adjacent drainages or adjacent properties is prohibited.
14. Use of biosolids as a feedstock with concentrations of a metal that exceeds the ceiling concentration for the metal presented in 40 Code of Federal Regulations section 503.13 (Table 1), as a feedstock is prohibited.

15. Use of biosolids as an additive or amendment is prohibited.
16. Concentration of constituents in any detention pond (i.e. Retention Pond, Detention Basin, and Overflow Pond) that results in hazardous constituent concentration levels, as defined in California Code of Regulations, title 22, section 66261.3 is prohibited.

## **B. DISCHARGE SPECIFICATIONS**

1. The Discharger shall implement composting in a manner that does not cause, or threaten to cause, a condition of contamination, pollution or nuisance (including odor), as defined in the California Water Code section 13050.
2. The discharge of wastes shall not cause water quality degradation.
3. The Discharger shall not discharge any of the feedstocks, additives, or amendments listed in Findings 10 and 11 at the facility (other than food waste to the pilot-scale covered ASP system) until the facility is upgraded as proposed with the required pads and composite-lined ponds and the final construction report has been approved by Central Valley Water Board staff. In the event that the facility is not upgraded as required by **1 December 2016**, the Discharger shall submit an amended ROWD with information necessary for revised WDRs or must obtain coverage under any statewide composting order that may exist at that time.
4. Wastes shall only be discharged into, and shall be confined to, units specifically designed for their containment as described in this Order.
5. The Discharger shall conduct a load-checking program as proposed in Section 4.1 of the 10 January 2013 ROWD. Each incoming load shall be checked and any materials or wastes discovered during the load-checking program that are not allowed by this Order shall be removed from the facility for proper recycling or disposal at a properly permitted facility as proposed in the ROWD.
6. The Discharger shall not use any additives or amendments other than those listed in Finding 11, and shall limit their use (other than water from the supply well or ponds) to no more than 30% additives/amendments by volume.
7. The Discharger shall, within **72 hours**, remove and relocate any wastes discharged at this facility in violation of this Order. If the Discharger is unable to remove and relocate the waste, the Discharger shall submit a report to the Central Valley Water Board within **two weeks** explaining how the discharge occurred, why the waste cannot be removed, and any updates to the waste acceptance program necessary to prevent re-occurrence.

## C. FACILITY SPECIFICATIONS

1. The pad, liner, and pond sizing requirements of this Order shall become effective when the Discharger begins accepting the additional feedstocks, additives, and amendments as listed in Findings 10 and 11. Prior to upgrading the facility as required, the Discharger may continue composting the feedstocks, additives, and amendments as listed in Finding 9. The upgrades shall be completed by **1 December 2016** unless the Discharger submits an amended ROWD or obtains coverage under any statewide composting order that may exist as that time.
2. Compost pads and ponds shall be designed and constructed under the direct supervision of a California registered civil engineer, or a certified engineering geologist, and shall be certified by that individual as meeting the requirements of this Order prior to waste discharge.
3. Prior to construction, all pad and pond areas shall have unsuitable soils removed as recommended in the ROWD. The design report for the expansion project shall include specifications for removing unsuitable soils.
4. **Compost Pad Design** — The compost pad areas, as shown on Attachment B as “Windrow, Curing, Processing, or Compost Storage Areas”, “Green Waste Processing and/or Storage Area”, “Finished Compost Screening and Storage Areas”, and “Tipping Area” shall be designed and constructed with pads that include the following:
  - a. A one-foot thick compacted soil layer with hydraulic conductivity of  $1 \times 10^{-5}$  cm/s or less.
  - b. An all-weather surface that allows equipment to operate without damage and does not allow desiccation.
  - c. Be sloped a minimum of one percent (1%) for drainage.A design report shall be submitted pursuant to ¶D.4. prior to construction of compost pad areas.
5. Composting pads and slabs and their respective containment structures shall be designed and constructed to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping.
6. **Pond Design** — The Retention Pond, Detention Basin, and Overflow Pond, as shown on Attachment B, shall be designed and constructed as follows:
  - a. Include a composite liner system consisting of at least a 40-mil geomembrane (60-mil if HDPE) immediately overlying a low-hydraulic conductivity soil layer

consisting of at least one foot of compacted soil with hydraulic conductivity of  $1 \times 10^{-6}$  cm/s or less (or a GCL).

- b. The Retention Pond, Detention Basin, and Overflow Pond, when taken in total, shall be sized to contain leachate and runoff from the remaining pad areas from a minimum 25-year return annual total precipitation value distributed monthly in accordance with the average (mean) precipitation values.
  - c. The Retention Pond, Detention Basin, and Overflow Pond must be designed and constructed with a pan lysimeter monitoring device under the lowest point of the pond.
7. **Drainage Ditch Design** — Drainage ditches that convey leachate and runoff from the pad areas to the ponds shall be designed and constructed to the same standards as the compost pads (or shall consist of concrete) and shall accommodate flow from at least a 25-year, 24-hour storm event. Ditches must be properly sloped to prevent ponding and kept free and clear of debris to allow for continuous flow of liquid. Ditches must be adequately protected from erosion, and must not cause, threaten to cause, or contribute to conditions resulting in contamination, pollution, or nuisance. Ditches must be inspected and cleaned out prior to the wet season every year.
  8. Areas used for receiving, processing, or storing feedstocks, additives, amendments, or compost (active, curing, or final product) must be designed, constructed, and maintained to control and manage all run-on, runoff, and precipitation which falls onto or within the boundaries of these areas, from a 25-year, 24-hour peak storm event at a minimum.
  9. Areas used for receiving, processing, or storing feedstocks, additives, amendments, or compost (active, curing, or final product) must be protected from inundation by surface flows associated with a 25-year, 24-hour peak storm event at a minimum.
  10. Berms must be designed, constructed, and maintained to prevent run-on and run-off from a 25-year, 24-hour peak storm event at a minimum. Berms must be adequately protected from erosion, and must not cause, threaten to cause, or contribute to conditions resulting in contamination, pollution, or nuisance.
  11. The Discharger shall install and maintain an onsite rainfall gauge and shall record and report data as required in the attached MRP. Onsite rainfall data shall be used to determine if the site has experienced rainfall that exceeds the pond design criteria.
  12. The Discharger shall maintain containment and control structures (e.g., berms, pads, ponds, and run-on/run-off control structures) in good working order.

13. The Discharger shall maintain at least two feet of freeboard in the Retention Pond, Detention Basin, and the Overflow Pond at all times.
14. Dissolved oxygen in the Retention Pond, Detention Basin, and Overflow Pond shall not be less than 1.0 milligrams per liter to prevent objectionable odors.
15. The Retention Pond, Detention Basin, and Overflow Pond shall be managed to prevent the breeding of mosquitoes.
16. The Retention Pond, Detention Basin, and Overflow Pond shall be managed as described in the facility's Water and Wastewater Management Plan.
17. By **31 August** of each year, the Discharger shall conduct an annual inspection of the operation in order to assure that the site has been prepared for the rainy season to repair damage to the pad and pond liners and to prevent ponding on the pads. The Discharger shall take photos of any problem areas before and after repairs. All wet weather preparations shall be completed by **1 November** of each year. The Discharger shall include a synopsis of these preparations in the next Annual Monitoring Report required under ¶D.3. of this Order.
18. The Discharger shall allow Central Valley Water Board staff to:
  - a. Enter the facility during normal working hours;
  - b. Copy any record relating to the design or operation of the facility;
  - c. Sample any waste, additives, discharge, run-on or run-off; and
  - d. Take recordings, photographs, or videotapes of the facility and its operation.
19. At closure, all wastes, residual wastes and adjacent natural geologic materials contaminated by wastes, shall be completely removed from the facility. Closure shall be conducted under the direct supervision of a California registered civil engineer or a certified engineering geologist.
20. Composting operations shall be setback at least 100 feet from the nearest surface water body and/or the nearest water supply well.
21. Additives and amendments must be handled, stored, and processed in the manner specified in this Order.
22. All feedstocks, additives, amendments, and compost (active, curing, or final product) must not cause, threaten to cause, or contribute to conditions of pollution, contamination, or nuisance. These discharges must comply with the applicable Basin Plan requirements.
23. All feedstocks, additives, amendments, and compost (active, curing, or final product) from a composting operation that are exposed to precipitation or run-on

having the potential to either produce contaminated non-process wastewater or leachate must be located on containment structures constructed as required by this Order.

24. Dischargers must submit a Water and Wastewater Management Plan that describes how wastewater will be managed to prevent discharge. The plan must describe the design, operations, and maintenance of the systems, including water balance calculations and assumptions.
25. Process wastewater, contaminated non-process wastewater, and leachate shall be handled as wastewater and managed in accordance with an approved Water and Wastewater Management Plan.

#### **D. REQUIRED REPORTS AND NOTICES**

1. At least **120 days** prior to terminating operations or to initiating any change in the facility, its location, its ownership, its operations, or the waste being processed (other than as described in this Order), the Discharger shall submit an amended ROWD proposing and substantiating such change.
2. Upon the occurrence of any event that could threaten public health, create a nuisance, threaten surface or ground water quality, or otherwise result in a violation of this Order, the Discharger shall notify Central Valley Water Board staff within **48 hours** of the event by telephone or electronic mail, and follow-up the initial notification with written documentation of the event within **10 working days** of the incident.
3. The Discharger shall submit Annual Monitoring Reports to the Central Valley Water Board as required by MRP No. R5-2015-0081, which is attached to this Order and hereby incorporated by reference.
4. The Discharger shall submit a Water and Wastewater Management Plan by **15 September 2015**. The Water and Wastewater Management Plan shall describe how water and wastewaters will be managed in accordance with this Order. Information must include a description of and/or plan illustrating all precipitation controls, containment structures, (i.e., conveyance systems for storm water and/or wastewaters, detention ponds), best management practices, and contingency plan including:
  - a. A storm water conveyance system for controlling run-on and runoff.
  - b. A description of how process water is obtained and used.
  - c. A description of how the operation collects and manages wastewater.  
Information may include, but is not limited to, quantity that is reused back into

- the process, description of wastewater treatment systems, other water quality permits, and best management practices (i.e. covering materials) that reduce the production of wastewater.
- d. A water balance demonstrating compliance with the design, construction and operation requirements of this Order for the Retention Pond, Detention Basin, and Overflow Pond.
5. The Discharger shall submit a design report for construction of the compost pads and ponds for Central Valley Water Board staff review and approval at least **60 days** prior to constructing these facilities. The design report shall propose liner systems that meet the requirements of this Order and include a CQA Plan to ensure proper testing and quality assurance of liner materials and compacted soil pads.
  6. The Discharger shall submit a final construction report documenting that the compost pads and ponds have been constructed in accordance with the approved design report and CQA Plan no more than **60 days** after completion of construction. The Discharger shall not discharge food waste, grape pomace, cannery wastes, anaerobic digestion digestate, or any other feedstocks, additives, or amendments at the facility that were not listed in the 2001 ROWD when the facility obtained coverage under the now expired Conditional Waiver 96-031 until the final construction report is approved by Central Valley Water Board staff.

## E. PROVISIONS

1. The Discharger shall comply with these WDRs and the attached MRP R5-2015-0081, and any revisions thereto as ordered by the Executive Officer. A violation of the MRP is a violation of these waste discharge requirements.
2. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated November 2013, which is attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referred to as "Standard Provision(s)."
3. The Discharger shall submit reports required by this Order pursuant to California Water Code section 13267. Failure to submit the reports by the due dates shown may lead to enforcement action pursuant to California Water Code section 13268.
4. The Discharger shall file a Notice of Intent (NOI) with the State Water Board for coverage under the General NPDES permit for construction activities (NPDES General Permit No. 2009-0009-DWQ) prior to construction at the facility, and shall submit a SWPPP to the Central Valley Water Board in accordance with the requirements of the General NPDES Permit.

5. The Discharger shall maintain coverage under the General NPDES permit for industrial activities (NPDES General Permit No. 97-03-DWQ), and shall maintain a SWPPP in accordance with the requirements of the General NPDES Permit. The SWPPP shall include all information, plans, and practices required by the General NPDES Permit for the proposed expanded facility prior to operation of the expanded facility. The new Industrial General Permit 2014-0057-DWQ becomes effective on 1 July 2015, and the Discharger will be required to obtain coverage under this new permit.
6. The Discharger shall maintain waste containment facilities and precipitation and drainage control systems, and shall immediately notify the Central Valley Water Board of any flooding equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or of precipitation and drainage control structures.
7. The Discharger shall maintain legible records of the volume of green/food waste discharged at the facility and the manner and location of discharge. Such records shall be maintained at the facility or the facility's administration office until the completion of site closure. These records shall be available for review by representatives of the Central Valley Water Board and of State Water Board at any time during normal business hours.
8. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order prior to the change in ownership. A copy of that notification shall be sent to the Central Valley Water Board.
9. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
10. The Central Valley Water Board will review this Order periodically and will revise these requirements when necessary.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 5 June 2015.

*ORIGINAL SIGNED BY*

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PAMELA C. CREEDON, Executive Officer

AAH/WMH

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2015-0081

FOR

NORTHERN RECYCLING, LLC  
NORTHERN RECYCLING COMPOST - ZAMORA  
YOLO COUNTY

Northern Recycling, LLC (hereafter "Discharger") shall submit reports required by this Monitoring and Reporting Program (MRP) and the applicable portions of the Standard Provisions and Reporting Requirements dated November 2013 pursuant to California Water Code section 13267. Compliance with this MRP is ordered by the WDRs and the Discharger shall not implement any changes to this MRP unless a revised MRP is issued by the Central Valley Water Board or the Executive Officer.

**POND MONITORING**

The Discharger shall monitor and sample water in the ponds in accordance with Table 1. Sample collection shall follow standard USEPA protocol. The leak detection monitoring device (i.e. pan lysimeter) shall be checked monthly for liquid. Upon detection of liquid in a previously dry monitoring device Discharger shall notify the Board within 48 hours; collect a sample and analyze the liquid for the constituents listed in Table 1; remove the liquid from the device; and continue to monitor weekly. If liquid reappears, another sample must be collected and analyzed for the constituents in Table 1. If the liquid is confirmed to be wastewater, the Discharger must submit a Response Action Plan within 30 days for review and approval by the Board.

<b>TABLE 1 – POND MONITORING PROGRAM</b>		
<b><u>Parameter</u></b>	<b><u>Units</u></b>	<b><u>Frequency</u></b>
<b>Field Parameters</b>		
Freeboard	Feet & Tenths	Weekly/Monthly <sup>1</sup>
Dissolved Oxygen	mg/L	Weekly <sup>2</sup>
Specific Conductance	µmhos/cm	Quarterly <sup>3</sup>
pH	std. units	Quarterly <sup>3</sup>
<b>Monitoring Parameters</b>		
Total Dissolved Solids	mg/L	Quarterly <sup>3</sup>
Total Fixed Dissolved Solids	mg/L	Quarterly <sup>3</sup>
Total Nitrogen	mg/L	Quarterly <sup>3</sup>
<p><sup>1</sup> Weekly from 1 October to 31 May and Monthly from 1 June to 30 September for <b>all ponds</b>.</p> <p><sup>2</sup> Dissolved oxygen shall be measured weekly in <b>all ponds</b>. Dissolved oxygen shall not be less than 1.0 milligram per liter to prevent odors.</p> <p><sup>3</sup> One sample collected between 1 January to 31 March, one sample collected between 1 April to 30 June, one sample collected between 1 July to 30 September, and one sample between 1 October and 31 December of each year from the <b>Retention Pond, the Detention Basin, and the Overflow Pond</b>.</p>		

### **FACILITY MONITORING**

The Discharger shall conduct facility monitoring as follows:

**a. Quarterly Inspections**

- 1) Operations Areas – Perform quarterly inspections of the working surfaces, berms, ditches, facility perimeter, erosion control best management practices (BMPs), and any other operational surfaces approved by this Order. The Discharger shall include the following observations in the Annual Monitoring Report:
  - a. Date and time of inspections, along with the name of the inspector;
  - b. Evidence of areas of deficiency such as cracking or subsidence in the working surfaces;
  - c. Evidence of ponding over the working surfaces and within ditches (show affected area on a map);
  - d. Effectiveness of erosion control BMPs;
  - e. Maintenance activities associated with, but not limited to, the working surfaces, berms, ditches, and erosion control BMPs;

- f. Evidence of any water or wastewater leaving or entering the facility, estimated size of affected area, and estimated flow rate (show affected area on a map);
- g. Integrity of drainage systems during the wet season; and
- h. Photographs of observed and corrected deficiencies.

2) Wastewater Management System - Perform quarterly inspections of the wastewater management system and submit the following observations and records in the Annual Monitoring Report:

- a. Date and time of inspections along with name of inspector;
- b. The overall condition of the wastewater management system (i.e. pond liner, storage tank construction, municipal wastewater connection points);
- c. The available capacity within storage systems and the current volume of wastewater (gallons) or solids (cubic yards) contained;
- d. Presence of odors from the wastewater management system –
- e. characterization, source, and distance from source;
- f. Volume of wastewater treated and discharged, if applicable; and
- g. Volume of wastewater disposed at an off-site treatment system and name and location of the wastewater treatment facility, if applicable.

b. **Annual Facility Inspection**

By **31 August** of each year, the Discharger shall conduct an annual inspection of the operation in order to assure that the site has been prepared for the rainy season to repair damage to the pad and pond liners and to prevent ponding on the pads. The Discharger shall take photos of any problems areas before and after repairs. All wet weather preparations shall be completed by **1 November** of each year. Annual facility inspection reporting shall be submitted as required in the Reporting section of this MRP.

c. **Discharge Monitoring**

The Discharger shall maintain records of the following for reporting purposes:

- 1) The volume of pond water hauled to a permitted facility from each pond during the reporting period.
- 2) The additives and amendments used during the reporting period.

3) Verification of the load checking program.

d. **Rainfall Monitoring**

The Discharger shall monitor rainfall from an onsite rainfall gauge year round.

e. **Standard Observations**

The Discharger shall conduct Standard Observations at the facility in accordance with this section of the MRP. Standard observations shall be conducted in accordance with the following schedule:

<u>Frequency</u>	<u>Season</u>
<b>Weekly</b>	Wet: <b>1 October to 31 May</b>
<b>Monthly</b>	Dry: <b>1 June to 30 September</b>

The Standard Observations shall include:

- 1) Evidence of ponded water, rutting, or desiccation on any of the pads or drainage ditches. These areas shall be noted on a facility map.
- 2) Evidence of erosion issues throughout the property.

Results of Standard Observations shall be submitted as required in the Reporting section of this MRP.

f. **Storm Events**

The Discharger shall inspect all precipitation, diversion, and drainage facilities for damage within **7 days** following major storm events. Necessary repairs shall be completed within **30 days** of the inspection. The Discharger shall report any damage and subsequent repairs including photographs of the problem and repairs in the Annual Monitoring Report.

## **REPORTING**

The Discharger shall report field and laboratory test results in Annual Monitoring Reports. The Discharger shall submit the Annual Monitoring Reports to the Central Valley Water Board by **1 February** of each year. The Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. A discussion of the monitoring results shall precede the tabular summaries.

As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional engineer or geologist (or their subordinate) and signed, and if required stamped, by the registered professional.

The Discharger must submit reports in a searchable, electronic format (i.e., Portable Document Format (PDF) and Electronic Deliverable Format (EDF) via the State Water Board's Internet GeoTracker system at <<http://geotracker.waterboards.ca.gov/>> as required by this Order. In

addition, analytical data shall be uploaded to the GeoTracker database under a site-specific global identification number. Information on the GeoTracker database is provided at: [http://www.swrcb.ca.gov/ust/electronic\\_submittal/index.shtml](http://www.swrcb.ca.gov/ust/electronic_submittal/index.shtml).

Each Annual Monitoring Report is to include the following information:

- a. A transmittal letter explaining the essential points of the previous year's operation shall accompany each report. At a minimum, the transmittal letter shall identify any violations found since the last report was submitted and a description of the actions taken or planned for correcting those violations, including any references to previously submitted time schedules. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter.
- b. A summary of the facility's state of compliance with Waste Discharge Requirements (WDRs) Order R5-2015-0081 during the Annual reporting period.
- c. A map or aerial photograph showing the locations of observation stations and monitoring points;
- d. Tabular and graphical summaries of all water quality data collected during the year, including storm water monitoring if applicable.
- e. A discussion about the monitoring data and standard observations along with tabulated **cumulative** pond monitoring data, pond freeboard levels, and onsite rainfall data. The report shall document completion of all standard observations and any necessary repairs. The report shall include information about pond levels relative to the water balance in the ROWD and any offsite discharge of pond water at a wastewater treatment plant or under the Industrial Storm Water Permit, including sampling results.
- f. A summary discussion of the pilot scale covered aerated static pile (ASP) project including permit compliance with the air management district and the determination to continue pilot scale testing.
- g. Monitoring information must include at a minimum:
  - 1) The date, identity of sample, monitoring point from which the sample was collected, and time of sampling or measurement;
  - 2) The name of the individual(s) who performed the sampling or measurements;
  - 3) Date and time that analyses were started and completed;
  - 4) The analytical techniques or method used, including method of preserving the sample and the identity and volume of reagents used; and
  - 5) Field instrument calibration logs.

- h. A discussion of the required discharge monitoring including the volumes of water hauled to a permitted facility from each pond, a list of additives and amendments used, and verification that the load checking program was conducted as required by the WDRs.
- i. All historical monitoring data collected during the previous 5 years, and for which there are detectable results, including data for the previous year, shall be submitted in tabular form and in a digital file format.
- j. A copy of the laboratory analytical reports and chain of custody.
- k. Results and discussion from the quarterly facility inspections including the minimum requirements listed in "Facility Monitoring, Section a" of this MRP.
- l. Results and discussion from the annual facility inspection including:
  - 1) The observation date and time of the inspection, along with the name of the inspector;
  - 2) The type of deficiency/non-compliance observed;
  - 3) The cause for the deficiency/noncompliance;
  - 4) Map showing the area of deficiency/noncompliance;
  - 5) The corrective actions undertaken, or planned to resolve the deficiency/non-compliance, including the date and time of repairs;
  - 6) The measures undertaken by the Discharger to prevent the recurrence of the observed deficiency/noncompliance; and
  - 7) Photographs of the observed deficiencies/noncompliance with corresponding location on the map.
- m. A summary and certification of completion of inspections and maintenance of the working surfaces, berms, ditches, erosion and sediment control BMPs, or other containment structures.
- n. An evaluation and certification of completion of inspections and maintenance on the effectiveness of the wastewater handling facilities including results of the annual testing of wastewater, capacity issues, nuisance conditions, and system problems.
- o. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with this Order.
- p. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

- q. Documentation of completion of the annual facility inspection, maintenance, and repairs as required by the Section C. Facility Specifications of the WDRs, and this MRP.
- r. A discussion of any events that threatened public health, created a nuisance, threatened surface or ground water quality, or otherwise resulted in a violation of this Order addressed during the prior year, under Section D. Required Report and Notices of the WDRs, together with the Discharger's response to each such event.
- s. All other reports required by this Order and other information required by the Board must be signed by a designated person including,
  - 1) For a corporation - by a principal executive officer of at least the level of vice president;
  - 2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively;
  - 3) For a municipality, state, federal, or other public agency - by either a principal executive officer or ranking elected official;
  - 4) For a military facility - by the base commander or person with authority and responsibility for environmental matters at the facility; or
  - 5) A duly authorized representative of that person. An individual is a duly authorized representative only if:
    - a) The authorization is made in writing by a person described in paragraph (a) above;
    - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
    - c) The written authorization is submitted to the Regional Water Board.
- t. Any person signing a document under this section must make the following certification:

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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."

The results of any monitoring done more frequently than required at the locations specified in the MRP shall also be reported to the Central Valley Water Board.



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

STANDARD PROVISIONS AND REPORTING REQUIREMENTS  
FOR  
WASTE DISCHARGE REQUIREMENTS  
FOR  
INDUSTRIAL FACILITIES REGULATED BY TITLE 27  
(Title 27, § 20005 et seq.)

NOVEMBER 2013

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**A. APPLICABILITY**

1. These Standard Provisions and Reporting Requirements (SPRRs) are applicable to Class II surface impoundments, waste piles, and land treatment units that are regulated by the Central Valley Regional Water Quality Control Board (hereafter, Central Valley Water Board) pursuant to the provisions of California Code of Regulations, title 27 ("Title 27"), section 20005 et seq.
2. "Order," as used throughout this document, means the Waste Discharge Requirements (WDRs) to which these SPRRs are incorporated.
3. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, and do not protect the Discharger from liabilities under federal, state, or local laws. This Order does not convey any property rights or exclusive privileges.
4. The provisions of this Order are severable. If any provision of this Order is held invalid, the remainder of this Order shall not be affected.
5. If there is any conflicting or contradictory language between the WDRs, the Monitoring and Reporting Program (MRP), or the SPRRs, then language in the WDRs shall govern over either the MRP or the SPRRs, and language in the MRP shall govern over the SPRRs.
6. If there is a site-specific need to change a requirement in these SPRRs for a particular facility, the altered requirement shall be placed in the appropriate section of the WDRs and will supersede the corresponding SPRRs requirement. These SPRRs are standard and cannot be changed as part of the permit writing process or in response to comments, but they will be periodically updated on an as-needed basis.
7. Unless otherwise stated, all terms are as defined in Water Code section 13050 and in Title 27, section 20164.

## **B. TERMS AND CONDITIONS**

1. Failure to comply with any waste discharge requirement, monitoring and reporting requirement, or Standard Provisions and Reporting Requirement, or other order or prohibition issued, reissued, or amended by the Central Valley Water Board or the State Water Board, or intentionally or negligently discharging waste, or causing or permitting waste to be deposited where it is discharged into the waters of the state and creates a condition of pollution or nuisance, is a violation of this Order and the Water Code, which can result in the imposition of civil monetary liability [Wat. Code, § 13350(a)]
2. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to [Wat. Code, § 13381]:
  - a. Violation of any term or condition contained in this Order;

- b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
  - c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge; or
  - d. A material change in the character, location, or volume of discharge.
3. Before initiating a new discharge or making a material change in the character, location, or volume of an existing discharge, the Discharger shall file a new report of waste discharge (ROWD), or other appropriate joint technical document (JTD), with the Central Valley Water Board [Wat. Code, § 13260(c) and § 13264(a)]. A material change includes, but is not limited to, the following:
  - a. An increase in area or depth to be used for solid waste disposal beyond that specified in waste discharge requirements;
  - b. A significant change in disposal method, location, or volume (e.g., change from land disposal to land treatment);
  - c. A change in the type of waste being accepted for disposal; or
  - d. A change to previously-approved liner systems or final cover systems that would eliminate components or reduce the engineering properties of components.
4. Representatives of the Central Valley Water Board may inspect the facilities to ascertain compliance with the waste discharge requirements. The inspection shall be made with the consent of the owner or possessor of the facilities or, if the consent is refused, with a duly issued warrant. However, in the event of an emergency affecting the public health or safety, an inspection may be made without consent or the issuance of a warrant [Wat. Code, §13267(c)].
5. The Central Valley Water Board will review this Order periodically and will revise these waste discharge requirements when necessary [Wat. Code, § 13263(e) and Title 27, § 21720(b)].
6. Except for material determined to be confidential in accordance with California law and regulations, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Central Valley Water Board [Wat. Code, § 13267(b)]. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.
7. A discharge of waste into the waters of the state is a privilege, not a right. No discharge of waste into waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge [Wat. Code, § 13263(g)].

8. Technical and monitoring reports specified in this Order are requested pursuant to the Water Code [§13267(b)]. Failure to furnish the reports by the specified deadlines or falsifying information in the reports, are misdemeanors that may be liable civilly in accordance with §13268(b) of the Water Code [Wat. Code, §13268(a)].

### **C. STANDARD PROHIBITIONS**

1. The discharge of wastes which have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the waste management unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products, which, in turn:
  - a. require a higher level of containment than provided by the unit; or
  - b. are 'restricted wastes'; or
  - c. impair the integrity of containment structures;is prohibited [Title 27, § 20200(b)].
2. The discharge of wastes outside of a waste management unit or portions of a unit specifically designed for their containment is prohibited.
3. The discharge of waste to a closed waste management unit is prohibited.
4. The discharge of waste constituents to the unsaturated zone or to groundwater is prohibited, except within the treatment zone at a land treatment unit.
5. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or groundwater is prohibited.

### **D. STANDARD DISCHARGE SPECIFICATIONS**

1. The Discharger is responsible for accurate characterization of wastes, including a determination of whether or not wastes will be compatible with containment features and other wastes at the waste management unit and whether or not the wastes are required to be managed as a hazardous waste [Title 27, § 20200(c)] or designated waste [Title 27, § 20210].
2. Leachate collected from a waste management unit shall be discharged to the unit from which it came, or discharged to an appropriate waste management unit in accordance with Title 27 and in a manner consistent with the waste classification of the liquid [Title 27, § 20200(d) and § 20340(g)].
3. Wastes shall be discharged only into waste management units specifically designed for their containment and/or treatment, as described in this Order.
4. The discharge shall remain within the designated disposal area at all times.

5. The discharge of waste shall not cause a nuisance condition [Wat. Code, § 13050(m)].

#### **E. STANDARD FACILITY SPECIFICATIONS**

1. All waste management units shall be designed, constructed, and operated to ensure that wastes, including leachate, will be a minimum of 5 feet above the highest anticipated elevation of underlying groundwater [Title 27, § 20240(c)], including the capillary fringe.
2. Surface and subsurface drainage from outside of a waste management unit shall be diverted from the unit [Title 27, § 20365(e)].
3. The Discharger shall **immediately** notify the Central Valley Water Board staff of any slope failure occurring at a waste management unit. Any failure which threatens the integrity of containment features or the waste management unit shall be promptly corrected in accordance with an approved method [Title 27, § 21710(c)(2)].
4. The Discharger shall **immediately** notify Central Valley Water Board staff of any flooding, unpermitted discharge of waste off-site or outside of waste management units, equipment failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
5. The Discharger shall maintain in good working order any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.
6. The Discharger shall lock all groundwater monitoring wells with a lock on the well cap or monitoring well box. All monitoring devices shall be clearly labeled with their designation including all monitoring wells, LCRS risers, and lysimeter risers and shall be easily accessible for required monitoring by authorized personnel. Each monitoring device shall be clearly visible and be protected from damage by equipment or vehicles.
7. The Discharger shall maintain the depth of the fluid in the sump of each waste management unit at the minimum needed for efficient pump operation (the depth at which the pump turns on given the pump intake height and maximum pump cycle frequency).
8. Each LCRS shall be tested at least annually to demonstrate proper operation. The results of the tests shall be compared with earlier tests made under comparable conditions [Title 27, § 20340(d)].
9. The Discharger shall maintain a *Storm Water Pollution Prevention Plan and Monitoring Program and Reporting Requirements* in accordance with State

Water Board Order No. 97-03-DWQ (or most recent general industrial storm water permit), or retain all storm water on-site.

## **F. STANDARD CONSTRUCTION SPECIFICATIONS**

1. The Discharger shall submit for review and approval at least **90 days** prior to proposed construction, design plans and specifications for new Class II waste management units that include the following:
  - a. Detailed construction drawings showing all required liner system components, the LCRS, leachate sump, unsaturated zone monitoring system, and access to the LCRS for required annual testing.
  - b. A Construction Quality Assurance (CQA) Plan prepared by a California-registered civil engineer or certified engineering geologist, and that meets the requirements of Title 27, section 20324.
  - c. A geotechnical evaluation of the area soils, evaluating their use as the base layer or reference to the location of this information in the ROWD/JTD [Title 27, § 21750(f)(4)].
  - d. Information about the seismic design of the proposed new waste management unit (or reference to the location of this information in the ROWD/JTD) in accordance with Title 27, section 20370.
  - e. A revised water quality monitoring plan for groundwater detection monitoring (or information showing the existing plan is adequate) in accordance with Title 27, section 20415.
  - f. An Operation Plan (or reference to the location of this information in the ROWD/JTD) meeting the requirements of Title 27, sections 21760(b) and 20375(b).
2. All containment structures shall be designed by, and construction shall be supervised by, a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards, or approved engineered alternative design, in accordance with this Order prior to waste discharge.
3. The Discharger shall not proceed with construction until the construction plans, specifications, and all applicable construction quality assurance plans have been approved. Waste management units shall receive a final inspection and approval of the construction by Central Valley Water Board staff before use of the unit commences [Title 27, § 20310(e)].
4. Any report, or any amendment or revision of a report, that proposes a design or design change that might affect a waste management unit's containment

features or monitoring systems shall be approved by a California registered civil engineer or a certified engineering geologist [Title 27, § 21710(d)].

5. Materials used in containment structures shall have appropriate chemical and physical properties to ensure that such structures do not fail to contain waste because of pressure gradients, physical contact with waste or leachate, chemical reactions with soil or rock, climatic conditions, the stress of installation, or because of the stress of daily operations [Title 27, § 20320(a)].
6. Waste management units and their respective containment structures shall be designed and constructed to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping [Title 27, § 20365(a)].
7. The Discharger shall design storm water conveyance systems for Class II units for a 1,000-year, 24-hour storm event [Title 27, § 21750(e)(3)].
8. All Class II waste management units shall be designed to withstand maximum credible earthquake without damage to the foundation or to the structures that control leachate, or surface drainage, or erosion [Title 27, § 20370(a)].
9. The Discharger shall perform stability analyses that include components to demonstrate the integrity of the waste management unit foundation, final slopes, and containment systems under both static and dynamic conditions throughout the life of the unit [Title 27, § 21750(f)(5)].
10. New Class II Units, other than LTUs and expansions of existing Class II units, shall have a 200 foot setback from any known Holocene fault. [Title 27, § 20250(d)].
11. Liners shall be designed and constructed to contain the fluid, including waste, and leachate [Title 27, § 20330(a)].
12. Hydraulic conductivities shall be determined primarily by appropriate field test methods in accordance with accepted civil engineering practice. The results of laboratory tests with both water and leachate, and field tests with water, shall be compared to evaluate how the field permeabilities will be affected by leachate. It is acceptable for the Discharger to use appropriate compaction tests in conjunction with laboratory hydraulic conductivity tests to determine field permeabilities as long as a reasonable number of field hydraulic conductivity tests are also conducted [Title 27, § 20320(c)].
13. Hydraulic conductivities specified for containment structures other than the final cover shall be relative to the fluids (leachate) to be contained. Hydraulic conductivities for the final cover shall be relative to water [Title 27, § 20320(b)].

14. A test pad for each barrier layer and any final cover shall be constructed in a manner duplicating the field construction. Test pad construction methods, with the designated equipment, shall be used to determine if the specified density/moisture-content/hydraulic conductivity relationships determined in the laboratory can be achieved in the field with the compaction equipment to be used and at the specified lift thickness [Title 27, § 20324(g)(1)(A)].
15. The Discharger shall ensure proper preparation of the subgrade for any liner system that includes a GCL so as to provide a smooth surface that is free from rocks, sticks, or other debris that could damage or otherwise limit the performance of the GCL.
16. The Discharger shall propose an electronic leak location survey of the top liner for any new waste management unit in the construction quality assurance plan unless the Discharger demonstrates that a leak location survey is not needed.
17. Leachate collection and removal systems are required for Class II surface impoundments [Title 27, § 20340(a)].
18. The LCRS shall be designed, constructed, maintained, and operated to collect and remove twice the maximum anticipated daily volume of leachate from the waste management unit [Title 27, § 20340(b)].
19. Leachate collection and removal systems shall be designed and operated to function without clogging through the life of the waste management unit.
20. The leachate sump, leachate removal pump, and pump controls shall be designed and set to maintain a fluid depth no greater than the minimum needed for efficient pump operation [Title 27, § 20340(c)].
21. All construction of liner systems and final cover systems shall be performed in accordance with a Construction Quality Assurance Plan certified by a registered civil engineer or a certified engineering geologist [Title 27, § 20323].
22. The Construction Quality Assurance program shall be supervised by a registered civil engineer or a certified engineering geologist who shall be designated the CQA officer [Title 27, § 20324(b)(2)].
23. The Discharger shall ensure that a third party independent of both the Discharger and the construction contractor performs all of the construction quality assurance monitoring and testing during the construction of a liner system.
24. The Discharger shall notify Central Valley Water Board staff at least **14 days** prior to commencing field construction activities including construction of a new Class II waste management unit, construction of a final cover (for units closed

as a landfill), or any other construction that requires Central Valley Water Board staff approval under this Order.

25. The Discharger shall submit for review and approval at least **60 days** prior to proposed discharge, final documentation required in Title 27 Section 20324(d)(1)(C) following the completion of construction of a new Class II waste management unit. The report shall be certified by a registered civil engineer or a certified engineering geologist and include a statement that the liner system was constructed in accordance with the approved design plans and specifications, the CQA Plan, the requirements of the WDRs, and that it meets the performance goals of Title 27. The report shall contain sufficient information and test results to verify that construction was in accordance with the design plans and specifications, the construction quality assurance plan, and the performance goals of Title 27.
26. The Discharger shall not discharge waste onto a newly constructed liner system until the final documentation report has been reviewed and an acceptance letter has been received.

#### **G. STANDARD CLOSURE AND POST-CLOSURE SPECIFICATIONS**

1. The final closure and post-closure maintenance plan for the waste management unit shall include at least the following: an itemized cost analysis, closure schedule, any proposed final treatment procedures, map, changes to the unit description presented in the most recent ROWD, future land use, and a construction quality assurance plan [Title 27, § 21769(c) & (d)].
2. Closure of each waste management unit shall be under the direct supervision of a registered civil engineer or certified engineering geologist [Title 27, § 20950(b)].
3. The final cover of waste management units closed as a landfill shall be designed, graded, and maintained to prevent ponding and soil erosion due to high run-off velocities [Title 27, § 21090(b)(1)(A)].
4. The final grading design shall be designed and approved by a registered civil engineer or certified engineering geologist [Title 27, § 21090(b)(1)(C)].
5. All final cover designs shall include a minimum 1-foot thick erosion resistant vegetative layer or a mechanically erosion-resistant layer [Title 27, § 21090(a)(3)(A)(1 & 2)].
6. Areas with slopes greater than ten percent, surface drainage courses, and areas subject to erosion by wind or water shall be designed and constructed to prevent such erosion [Title 27, § 21090(b)(2)].

7. The Discharger shall design storm water conveyance systems for Class II units that are closed as a landfill for a 1,000-year, 24-hour storm event [Title 27, § 21750(e)(3)].
8. Construction or repair of a final cover system's low-hydraulic conductivity layer is to be carried out in accordance with an approved construction quality assurance plan [Title 27, § 21090(b)(1)(E)].
9. Within **30 days** of completion of all closure activities, the Discharger shall certify that all closure activities were performed in accordance with the most recently approved final closure plan and CQA Plan, and in accordance with all applicable regulations. The Discharger shall also certify that units that are closed as a landfill shall be maintained in accordance with an approved post-closure maintenance plan [Title 27, § 21710(c)(6)].
10. The post-closure maintenance period for units closed as a landfill shall continue until the Central Valley Water Board determines that wastes remaining in the landfill unit(s) no longer pose a threat to water quality [Title 27, § 20950(a)(1)].
11. The Discharger shall periodically inspect and identify problems with the final cover including areas that require replanting, erosion, areas lacking free drainage, and any areas damaged by equipment operations [Title 27, § 21090(a)(4)(B)].
12. The Discharger shall repair any cover promptly in accordance with a cover repair plan to be included in the final post-closure maintenance plan [Title 27, § 21090(a)(4)(C)].

#### **H. STANDARD FINANCIAL ASSURANCE PROVISIONS**

1. The Discharger shall establish an irrevocable fund (or provide other means) for closure to ensure closure of each Class II unit in accordance with an approved closure plan [Title 27, § 20950(f) and § 22207(a)].
2. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known and reasonably foreseeable releases from the waste management unit [Title 27, §20380(b) and § 22222].

#### **I. STANDARD MONITORING SPECIFICATIONS**

1. The water quality monitoring program shall include appropriate and consistent sampling and analytical procedures and methods designed to ensure that monitoring results provide a reliable indication of water quality at all monitoring points and background monitoring points [Title 27, § 20415(e)(4)].

2. All monitoring systems shall be designed and certified by a registered geologist or a registered civil engineer [Title 27, § 20415(e)(1)].
3. All monitoring wells shall be cased and constructed in a manner that maintains the integrity of the monitoring well bore hole and prevents the bore hole from acting as a conduit for contaminant transport [Title 27, § 20415(b)(4)(A)].
4. All sample chemical analyses of any material shall be performed by a laboratory certified by the California Department of Health Services [Wat. Code, § 13176(a)].
5. A Detection Monitoring Program for a new Class II waste management unit shall be installed, operational, and one year of monitoring data collected from background monitoring points prior to the discharge of wastes [Title 27, § 20415(e)(6)].
6. Background for water samples shall be represented by the data from all samples taken from applicable background monitoring points during that reporting period (at least one sample from each background monitoring point).
7. The Discharger shall submit for approval, establish, and maintain an approved Sample Collection and Analysis Plan. The Sample Collection and Analysis Plan shall at a minimum include:
  - a. Sample collection procedures describing purging techniques, sampling equipment, and decontamination of sampling equipment;
  - b. Sample preservation information and shipment procedures;
  - c. Sample analytical methods and procedures;
  - d. Sample quality assurance/quality control (QA/QC) procedures;
  - e. Chain of Custody control; and
  - f. Sample analysis information including sample preparation techniques to avoid matrix interferences, method detection limits (MDLs), practical quantitation limits (PQLs) and reporting limits (RLs), and procedures for reporting trace results between the MDL and PQL.

If required by the Executive Officer, the Discharger shall modify the Sample Collection and Analysis Plan to conform with this Order.

8. 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 30 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 USEPA Methods, such as the latest editions, as applicable, of: (1) Methods for the Analysis of Organics in Water and Wastewater (USEPA 600 Series), (2) Test Methods for Evaluating Solid Waste (SW-846, latest edition), and (3) Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and in accordance with the approved Sample Collection and Analysis Plan. Appropriate sample preparation techniques shall be used to minimize matrix interferences.

9. If methods other than USEPA-approved methods or Standard Methods are used, or there is a proposed alternant USEPA method than the one listed in the MRP, the proposed methodology shall be submitted for review and approval prior to use, including information showing its equivalence to the required method.
10. 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 MDL shall be selected from among those methods which would provide valid results in light of any matrix effects or interferences.
11. The laboratory reporting limit (RL) for all reported monitoring data shall be set no greater than the practical quantitation limit (PQL).
12. **"Trace" results** - results falling between the MDL and the PQL - shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run.
13. Laboratory data shall not be altered or revised by the Discharger. If the Discharger observes potential lab errors, it shall identify the issue in the monitoring report and shall describe steps that will be taken to prevent similar errors in the future.
14. **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 USEPA analytical method manuals. In relatively interference-free water, laboratory-derived MDLs and PQLs are expected to closely agree with published USEPA MDLs and PQLs. MDLs and PQLs shall be reported.

15. 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 in the laboratory report 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.
16. 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 signature of a responsible person from the laboratory. **Sample results shall be reported unadjusted for blank results or spike recoveries.** In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged, but the analytical results shall not be adjusted.
17. 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.
18. The sampling interval of each monitoring well shall be appropriately screened and fitted with an appropriate filter pack to enable collection of representative groundwater samples [Title 27, § 20415(b)(4)(B)].
19. All borings are to be logged during drilling under the direct supervision of a registered geologist or registered civil engineer with expertise in stratigraphic well logging [Title 27, § 20415(e)(2)].
20. Soils are to be described according to the Unified Soil Classification System [Title 27, § 20415(e)(2)(A)]. Rock is to be described in a manner appropriate for the purpose of the investigation [Title 27, § 20415(e)(2)(B)].
21. The Discharger shall submit a work plan for review and approval at least **60 days** prior to installation or abandonment of groundwater monitoring wells.

22. The Discharger shall provide Central Valley Water Board staff a minimum of **one week** notification prior to commencing any field activities related to the installation or abandonment of monitoring devices.
23. The water quality protection standard shall consist of the constituents of concern (COC), concentration limits, and the point of compliance. The water quality protection standard shall apply during the active life of the waste management unit, closure period, post-closure maintenance period, and any compliance period under Title 27, section 20410 [Title 27, § 20390].
24. The point of compliance at which the water quality protection standard applies is a vertical surface located at the hydraulically downgradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit [Title 27, § 20405].
25. The compliance period is the minimum period of time during which the Discharger shall conduct a water quality monitoring program and is the number of years equal to the active life of the waste management unit plus the closure period [Title 27, § 20410(a)].
26. The groundwater monitoring system shall include a sufficient number of monitoring points, installed at appropriate locations, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater that has not been affected by a release from the waste management unit [Title 27, § 20415(b)(1)(A)].
27. The Detection Monitoring Program shall include a sufficient number of monitoring points, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance to allow the detection of a release from the waste management unit [Title 27, § 20415(b)(1)(B)1.].
28. Additional monitoring points shall be added as necessary to provide the best assurance of the **earliest possible detection** of a release from the waste management unit [Title 27, § 20415(b)(1)(B)2.].
29. The Detection Monitoring Program shall also include a sufficient number of monitoring points installed at appropriate depths and locations to yield groundwater samples from other aquifers or perched zones not already monitored to provide the **earliest possible detection** of a release from the waste management unit [Title 27, § 20415(b)(1)(B)3. and 4., and §20420(b)].
30. A surface water monitoring system shall be established to monitor each surface water body that could be affected by a release from the waste management unit [Title 27, § 20415(c)].

31. An unsaturated zone monitoring system shall be established for each waste management unit [Title 27, § 20415(d)].
32. The Discharger shall notify Central Valley Water Board staff within **seven days** if fluid is detected in a previously dry LCRS, unsaturated zone monitoring system, or if a progressive increase is detected in the volume of fluid in a LCRS [Title 27, § 21710(c)(3)].
33. Driller's logs for all monitoring wells shall to be submitted to the Central Valley Water Board and the Department of Water Resources [Wat. Code, § 13751 and Title 27, § 20415(b)(3)].
34. Groundwater elevation, temperature, electrical conductivity, turbidity, and pH are to be accurately measured at each well each time groundwater is sampled [Title 27, § 20415(e)(13)].
35. The groundwater flow rate and direction in the uppermost aquifer and in any zones of perched water and in any additional portions of the zone of saturation being monitored shall be determined at least quarterly [Title 27, § 20415(e)(15)].
36. The Discharger shall graph all analytical data from each monitoring point and background monitoring point and shall submit the graphs to the Central Valley Water Board annually [Title 27, § 20415(e)(14)].
37. For each waste management unit, the Discharger shall collect all data necessary for selecting appropriate data analysis methods for establishing background values for each constituent of concern and for each monitoring parameter [Title 27, § 20420(c)]. The Discharger shall propose a data analysis method that includes a detailed description of the criteria to be used for determining "measurably significant" (as defined in Title 27, section 20164) evidence of a release from the waste management unit and determining compliance with the water quality protection standard [Title 27, § 20415(e)(6) and (7)].
38. For statistical analysis of data, the Discharger shall use one of the methods described in Title 27, section 20415(e)(8)(A)-(E). A non-statistical data analysis method can be used if the method can achieve the goal of the particular monitoring program at least as well as the most appropriate statistical method [Title 27, § 20415(e)(8)]. The Discharger shall use a statistical or nonstatistical data analysis method that complies with Title 27, section 20415(e)(7, 8, 9, and 10), to compare the concentration of each constituent of concern or monitoring parameter with its respective background concentration to determine whether there has been a measurably significant evidence of a release from the waste management unit. For any given monitoring point at which a given constituent has already exhibited a measurably significant indication of a release at that

monitoring point, the Discharger may propose to monitor the constituent, at that well, using a concentration-versus-time plot.

39. The Discharger may propose an alternate statistical method [to the methods listed under Title 27, section 20415(e)(8)(A-D)] in accordance with Title 27, section 20415(e)(8)(E), for review and approval.
40. 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 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 or an approved Sample Collection and Analysis Plan for routine laboratory operating conditions that are available to the facility. The Discharger's technical report (Sample Collection and Analysis Plan and/or Water Quality Protection Standard Report), pursuant to Title 27, section 20415(e)(7), shall consider the PQLs listed in Appendix IX, Article 19 to Chapter 14 of Division 4.5 of Title 22, CCR, 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 a "trace" detection) shall be identified and used in appropriate statistical or non-statistical 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".
41. 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 (e.g., USEPA methods 8260 and 8270).
42. Alternate statistical procedures may be used for determining the significance of analytical results for common laboratory contaminants (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) if part of an approved water quality protection standard. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Central Valley Water Board staff.
43. **Confirmation of Measurably Significant Evidence of a Release.** Whenever a constituent is detected at a detection monitoring point at a concentration that exceeds the concentration limit from the water quality protection standard, the Discharger shall conduct verification sampling to confirm if the exceedance is due to a release or if it is a false-positive (unless previous monitoring has already confirmed a release for that constituent at that monitoring point). An

exceedance of the concentration limit from the water quality protection standard is considered measurably significant evidence of a release that must be either confirmed or denied. There are two separate verification testing procedures:

- a. Standard Monitoring Specification I.44 provides the procedure for analytes that are detected in less than 10% of the background samples such as non-naturally occurring constituents like volatile organic compounds; and
- b. Standard Monitoring Specification I.45 provides the procedure for analytes that are detected in 10% or greater of the background samples such as naturally occurring constituents like chloride.

**44. Verification Procedure for Analytes Detected in Less than 10% of**

**Background Samples.** The Discharger shall use the following non-statistical method for all analytes that are detected in less than 10% of the background samples. The non-statistical method shall be implemented as follows:

- a. **Initial Determination of Measurably Significant Evidence of a Release.** Identify each analyte in the **current** detection monitoring point sample that exceeds either its respective MDL or PQL, and for which a release has not been previously confirmed. The Discharger shall conclude that the exceedance provides a preliminary indication of a release or a change in the nature or extent of the release, at that monitoring point, if **either**:
  - 1) The data contains two or more analytes that equal or exceed their respective MDLs; or
  - 2) The data contains one or more analyte that equals or exceeds its PQL.
- b. **Discrete Retest** [Title 27, § 20415(e)(8)(E) and § 20420(j)(1-3)]:
  - 1) In the event that the Discharger or Central Valley Water Board staff concludes (pursuant to paragraph I.44.a., above) that there is a preliminary indication of a release, then the Discharger shall **immediately** notify Central Valley Water Board staff by phone or e-mail and, within **30 days** of such indication, shall collect two new (retest) samples from the monitoring point where the release is preliminarily indicated and analyze them for the constituents that caused the need for the retest.
  - 2) **Confirmation of a Release.** As soon as the retest data are available, the Discharger shall conclude that measurably significant evidence of a release is confirmed if (not including the original sample) two or more analytes equal or exceed their respective MDLs or if one or more analyte equals or exceeds its PQL. The Discharger shall then:

- a) **Immediately** verbally notify the Central Valley Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail **within seven days** of the verbal notification; and
- b) Carry out the requirements of Section J, **RESPONSE TO A RELEASE** if a release has been confirmed.
- c) Add any five-year analyte that is confirmed per this method to the monitoring parameter list such that it is monitored during each regular monitoring event.

45. **Verification Procedure for Analytes Detected in 10% or Greater of the Background Samples.** The Discharger shall use either a statistical or non-statistical method pursuant to Title 27, section 20415(e)(8)(E) for all analytes that are detected in 10% or greater of the background samples. The Discharger shall use one of the statistical methods required in Title 27, section 20415(e)(8)(E) unless another method has been proposed by the Discharger in a Water Quality Protection Standard Report (or equivalent report) and approved by the Central Valley Water Board in a Monitoring and Reporting Program pursuant to Title 27, section 20415(e)(8)(A-D)] or section 20415(e)(8)(E). The method shall be implemented as follows:

- a. **Initial Determination of Measurably Significant Evidence of a Release.**  
The Discharger shall compare the value reported by the laboratory for each analyte to the statistically-derived concentration limit from the most recent report (Annual Monitoring Report or Water Quality Protection Standard Report) that uses the approved statistical procedure. If the value exceeds the concentration limit for that constituent, the Discharger shall conclude that there is measurably significant evidence of a release [Title 27, § 20420(i)].
- b. **Retest Method** [Title 27, § 20415(e)(8)(E) and § 20420(j)(1-3)].
  - 1) In the event that the Discharger or Central Valley Water Board staff concludes (pursuant to paragraph 1.45.a., above) that there is a preliminary indication of a release, then the Discharger shall **immediately** notify Central Valley Water Board staff by phone or e-mail and, within **30 days** [Title 27, § 20415(e)(8)(E)(3)] of such indication, the Discharger shall implement a verification procedure/retest option, in accordance with Title 27, sections 20415(e)(8)(E) and 20420(j)(2). The verification procedure shall include either a single “composite” retest (i.e., a statistical analysis that augments and reanalyzes the data from the monitoring point that indicated a release) or shall consist of at least two “discrete” retests (i.e., statistical analyses each of which analyzes only newly-acquired data from the monitoring point that indicated a release) [Title 27,

§ 20415(e)(8)(E)]. The Discharger may use an alternate method previously approved by the Central Valley Water Board and included in the Monitoring and Reporting Program. The verification procedure shall comply with the requirements of Title 27, section 20415(e)(8)(E) in addition to the performance standards of Title 27, section 20415(e)(9). The retest samples shall be collected from the monitoring point where the release is preliminarily indicated and shall be analyzed for the constituents that caused the need for the retest. For any indicated monitoring parameter or constituent of concern, if the retest results of one or more of the retest data suites confirm the original indication, the Discharger shall conclude that measurably significant evidence of a release has been confirmed.

- 2) **Confirmation of a Release.** As soon as the retest data are available, the Discharger shall evaluate the results pursuant to paragraph I.45.b.1, above and shall:
  - a) **Immediately** verbally notify the Central Valley Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail **within seven days** of the verbal notification; and
  - b) Carry out the requirements of Section J, **RESPONSE TO A RELEASE** if a release has been confirmed.
  - c) Add any five-year analyte that is confirmed per this method to the monitoring parameter list such that it is monitored during each regular monitoring event.

46. **Physical Evidence of a Release.** If the Discharger determines that there is a significant **physical** evidence of a release, the Discharger shall immediately verbally notify Central Valley Water Board staff and provide written notification **by certified mail within 7 days** of such determination, and within **90 days** shall submit an amended report of waste discharge to establish an Evaluation Monitoring Program [Title 27, § 20385(a)(3) and § 20420(l)(1) & (2)].

## J. **RESPONSE TO A RELEASE**

1. **Measurably Significant Evidence of a Release Has Been Confirmed.** If the Discharger has confirmed that there is measurably significant evidence of a release from a waste management unit pursuant to Standard Monitoring Specification I.44 or I.45, then the Discharger shall:
  - a. **Immediately** sample all monitoring points in the affected medium at that waste management unit and determine the concentration of all monitoring parameters and constituents of concern for comparison with established

concentration limits. Because this constituent of concern scan does not involve statistical testing, the Discharger will need to collect and analyze only a single water sample from each monitoring point in the affected medium [Title 27, § 20420(k)(1)].

- b. **Within 90 days** of confirming measurably significant evidence of a release, the Discharger shall submit an amended report of waste discharge to establish an Evaluation Monitoring Program meeting the requirements of Title 27, sections 20420(k)(5)(A-D), including but not limited to the results of sampling pursuant to paragraph J.1.a, above. The Evaluation Monitoring Program shall be designed for the collection and analysis of all data necessary to assess the nature and extent of the release and to determine the spatial distribution and concentration of each constituent throughout the zone affected by the release [Title 27, § 20420(k)(5) and § 20425(b)].
- c. **Within 180 days** of confirming measurably significant evidence of a release, the Discharger shall submit to the Central Valley Water Board an initial engineering feasibility study for a Corrective Action Program necessary to meet the requirements of Title 27, section 20430. At a minimum, the initial engineering feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern [Title 27, § 20420(k)(6)].
- d. If the Discharger confirms that there is measurably significant evidence of a release from the waste management unit at any monitoring point, the Discharger may attempt to demonstrate that a source other than the waste management unit caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in groundwater, surface water, or the unsaturated zone. The Discharger may make a demonstration pursuant to Title 27, section 20420(k)(7) in addition to or in lieu of submitting both an amended report of waste discharge or an engineering feasibility study; however, the Discharger is not relieved of the requirements and due dates of Title 27, sections 20420(k)(6) & (7) unless Central Valley Water Board staff agree that the demonstration successfully shows that a source other than the waste management unit caused the evidence of a release or that the evidence resulted from error in sampling, analysis, or statistical evaluation or from natural variation in groundwater, surface water, or the unsaturated zone. In order to make this demonstration, the Discharger shall notify the Central Valley Water Board by certified mail of the intent to make the demonstration **within seven days** of determining measurably significant evidence of a release, and shall submit a report **within 90 days** of determining measurably significant evidence of a release [Title 27, § 20420(k)(7)].

- e. **Within 90 days** of the date that the Evaluation Monitoring Program from paragraph J.1.b is approved (the date is it established), the Discharger shall complete and submit the following:
  - i) **Results and Assessment for the Evaluation Monitoring Program.** A report with the results and assessment based on the approved Evaluation Monitoring Program [Title 27, § 20425(b)].
  - ii) **Updated Engineering Feasibility Study.** An updated engineering feasibility study for corrective action based on the data collected to delineate the release and data from the ongoing monitoring program required under Title 27, section 20425(e) [Title 27, § 20425(c)].
  - iii) **Amended ROWD for a Corrective Action Program.** An amended report of waste discharge to establish a Corrective Action Program meeting the requirements of Title 27, section 20430 based on the data collected to delineate the release and based on the updated engineering feasibility study [Title 27, § 20425(d)].

## K. GENERAL PROVISIONS

1. In the event the Discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the Discharger shall notify the appropriate Central Valley Water Board office by telephone **as soon as** it or its agents have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing **within two weeks**. The written notification shall state the nature, time, and cause of noncompliance, and shall describe the measures being taken to prevent recurrences and shall include a timetable for corrective actions.
2. All reports and transmittal letters shall be signed by persons identified below:
  - a. For a corporation: by a principal executive officer of at least the level of senior vice-president.
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor.
  - c. For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected or appointed official.
  - d. A duly authorized representative of a person designated in a, b or c above if:
    - 1) The authorization is made in writing by a person described in a, b, or c of this provision;

- 2) 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 Unit, superintendent, or position of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  - 3) The written authorization is submitted to the Central Valley Water Board.
- e. Any person signing a document under this Section shall make the following certification:
- “I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”
3. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature, extent, and impact of the noncompliance.
  4. The owner of the waste management facility shall have the continuing responsibility to assure protection of waters of the state from discharged wastes and leachate generated by discharged waste during the active life, closure, and any post-closure maintenance period of the waste management units and during subsequent use of the property for other purposes.
  5. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order shall not be regarded as a defense for the Discharger’s violations of this Order.
  6. The Discharger shall notify the Central Valley Water Board of a material change in; the types, quantity, or concentrations of wastes discharged; site operations and features; or proposed closure procedures, including changes in cost estimates. This notification shall be given a reasonable time before the changes are made or become effective. No changes shall be made without Central Valley Water Board approval following authorization for closure pursuant to the site Notification of Closure [Title 27, § 21710(a)(4)].
  7. The Discharger shall maintain legible records of the volume and type of each waste discharged at each waste management unit or portion of a unit, and the manner and location of discharge. Such records shall be maintained by the Discharger until the beginning of the post-closure maintenance period. These

records shall be on forms approved by the State Water Board or Central Valley Water Board and shall be maintained at the waste management facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the State Water Board or Central Valley Water Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Central Valley Water Board [Title 27, § 21720(f)].

8. In the event of any change in landowner or the operator of the waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Central Valley Water Board.
9. In the event of any change of ownership or responsibility for construction, operation, closure, or post-closure maintenance of the waste discharge facilities described in this Order, the Discharger shall notify the Central Valley Water Board prior to the effective date of the change and shall include a statement by the new Discharger that construction, operation, closure, or post-closure maintenance will be in compliance with this Order and any revisions thereof [Title 27, § 21710(c)(1)].
10. To assume ownership or operation under this Order, the succeeding owner or operator must apply in writing to the Central Valley Water Board requesting transfer of the Order within **14 days** of assuming ownership or operation of this facility. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory requirements contained in General Provision K.2 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. Transfer of this Order shall be approved or disapproved by the Central Valley Water Board.

#### **L. STORM WATER PROVISIONS**

1. The Discharger shall design storm water conveyance systems for Class II units for a 1,000-year, 24-hour storm event [Title 27, § 21750(e)(3)].
2. Waste management units and their respective containment structures shall be designed and constructed to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under the precipitation conditions for the unit [Title 27, § 20365(a)].
3. Precipitation on Class II waste piles which is not diverted by covers or drainage control systems shall be collected and managed through the LCRS, which shall

be designed and constructed to accommodate the precipitation conditions for each class unit [Title 27, § 20365(b)].

4. Diversion and drainage facilities shall be designed, constructed, and maintained to [Title 27, § 20365(c)]:
  - a. Accommodate the anticipated volume of precipitation and peak flows from surface runoff and under the precipitation conditions for the waste management unit.
  - b. Effectively divert sheet flow runoff laterally, via the shortest distance, into the drainage and collection facilities.
  - c. Prevent surface erosion through the use of energy dissipators where required to decrease the velocity of runoff, slope protection, and other erosion control measures where needed to prevent erosion.
  - d. Control and intercept run-on, in order to isolate uncontaminated surface waters from water that might have come into contact with waste.
  - e. Take into account:
    - i) For closed waste management units and for closed portions of units, the expected final contours of the closed unit, including its planned drainage pattern.
    - ii) For operating portions of waste management units other than surface impoundments, the unit's drainage pattern at any given time.
    - iii) The possible effects of the waste management unit's drainage pattern on and by the regional watershed.
    - iv) The design capacity of drainage systems of downstream and adjacent properties by providing for the gradual release of retained water downstream in a manner which does not exceed the expected peak flow rate at the point of discharge if there were no waste management facility.
  - f. Preserve the system's function. The Discharger shall periodically remove accumulated sediment from the sedimentation or detention basins as needed to preserve the design capacity of the system.
5. Collection and holding facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm or otherwise managed to maintain the design capacity of the system [Title 27, § 20365(d)].
6. Surface and subsurface drainage from outside of a waste management unit shall be diverted from the unit [Title 27, § 20365(e)].

7. Cover materials shall be graded to divert precipitation from the waste management unit, to prevent ponding of surface water over wastes, and to resist erosion as a result of precipitation [Title 27, § 20365(f)].
8. Any drainage layer in a final cover shall be designed and constructed to intersect with the final drainage system for the waste management unit in a manner promoting free drainage from all portions of the drainage layer [Title 27, §20365(f)].

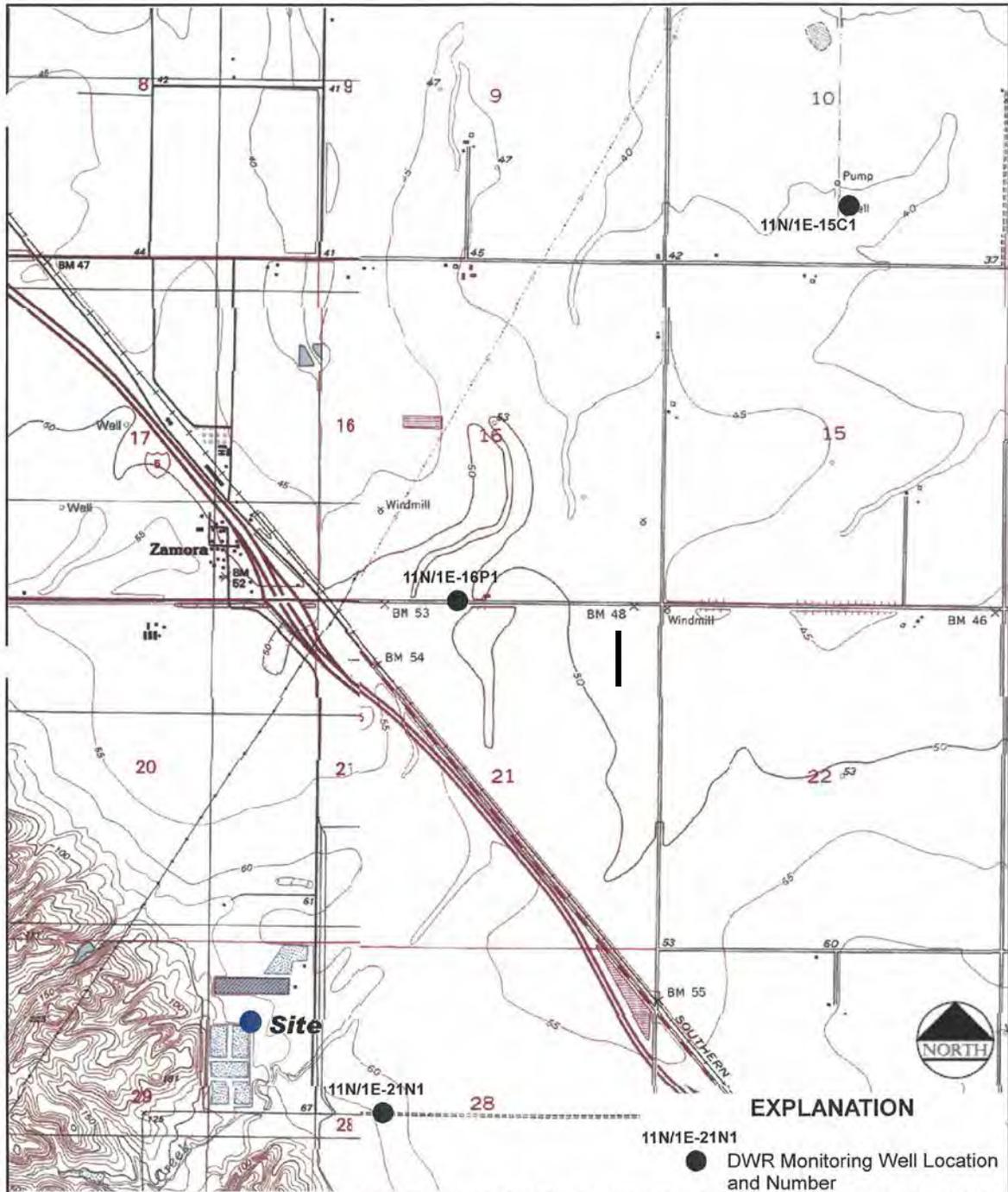
## **INFORMATION SHEET**

ORDER R5-2015-0081  
NORTHERN RECYCLING, LLC  
NORTHERN RECYCLING COMPOST, ZAMORA FACILITY  
YOLO COUNTY

### **NORTHERN RECYCLING, LLC; NORTHERN RECYCLING COMPOST - ZAMORA; Yolo County**

Northern Recycling, LLC (Discharger) submitted a Report of Waste Discharge for new waste discharge requirements (WDRs) for the expansion of an existing composting facility and to accept food waste for composting at the facility located one mile south of Zamora in Yolo County. The plans for the expansion of the composting facility have been withdrawn; however, the Discharger plans to continue to compost green waste from residential and commercial sources. The current composting operations consist of screening/processing, active windrow composting, and storing the final compost product. The compost operations will be conducted on compacted soil pads with hydraulic conductivity of  $1 \times 10^{-5}$  centimeters per second or less. The proposed Order requires the Discharger to construct a composite-lined retention pond and a composite-lined detention basin for leachate and contact water drainage from the pad areas, and one composite-lined overflow pond for additional storage capacity when needed. The required pad and pond liners are necessary to protect groundwater quality.

AAH/WMH

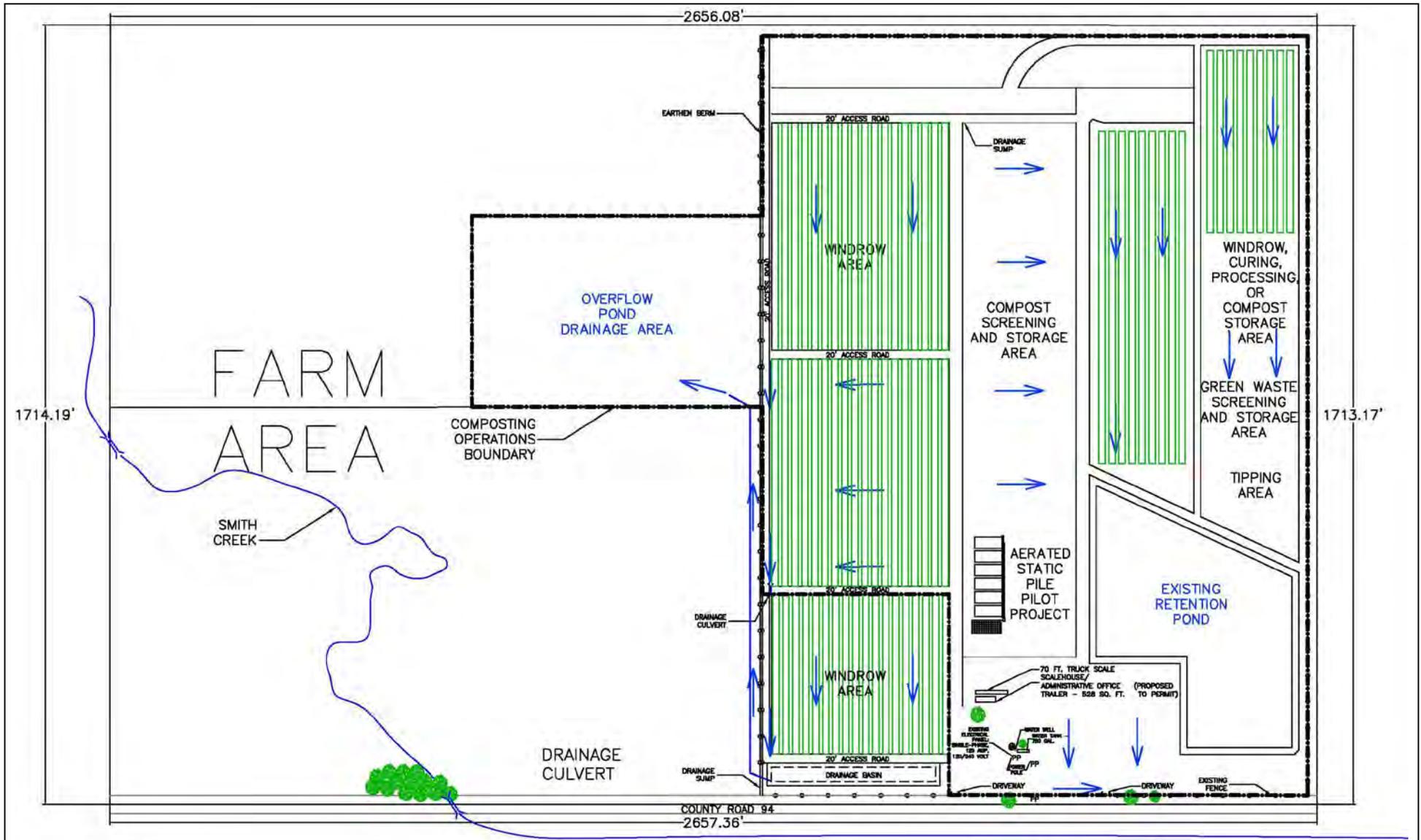


Reference: Maptech Topoquad, Zamora And El Dorado Bend, California Quadrangles Scale: 1" = 2000'

<p><b>RGH</b> CONSULTANTS</p> <p>Job No: 2942.01.05.1 Date: Nov 2012</p>	<p><b>SITE LOCATION MAP AND DWR MONITORING WELLS</b> Northern Compost Recycling Facility 11220 County Road 94 Zamora, California</p>	<p>PLATE <b>1</b></p>
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Drawing Reference:  
ROWD, Appendix C  
Site Location Map, Plate 1  
RGH Consultants

**SITE LOCATION MAP**  
NORTHERN RECYCLING, LLC  
NORTHERN RECYCLING COMPOST - ZAMORA  
YOLO COUNTY



TOTAL COMPLIANCE MANAGEMENT	SITE PLAN	FIGURE 2
P.O. BOX 1052 SACRAMENTO, CALIFORNIA 95812		

Drawing Reference:  
Site Plan, Figure 2  
Total Compliance Management

**SITE MAP**  
NORTHERN RECYCLING, LLC  
NORTHERN RECYCLING COMPOST - ZAMORA  
YOLO COUNTY