

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. R9-2003-0306
WASTE DISCHARGE REQUIREMENTS
FOR THE
PRIMA DESHECHA LANDFILL
ORANGE COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that

Background

1. Order No. 72-04, **“Waste Discharge Requirements for the Prima Deshecha Canada Sanitary Landfill,”** and addenda thereto, established requirements for the operation of a Class II-2 (old classification) sanitary landfill. Refuse disposal operations commenced in 1976.
2. On December 18, 1989, this Regional Board adopted Order No. 89-102, **“Waste Discharge Requirements for the County of Orange, Prima Deshecha Canada Sanitary Landfill, Orange County.”** Order No. 89-102 updated Order No. 72-04 and addenda thereto, and revised the classification and the Waste Discharge Requirements to implement the provisions of the former Chapter 15, Division 3, Title 23, California Code of Regulations (CCR). Effective July 18, 1997, Chapter 15 regulations covering nonhazardous wastes were relocated to CCR Title 27, Division 2, Subdivision 1 of the Solid Waste Requirements. The Prima Deshecha Landfill is currently classified as a Class III Landfill.
3. In the spring of 1998, a landslide developed in stockpile 1, located adjacent to the Prima Deshecha Cañada. The landslide included approximately 2 million cubic yards (mcy) of stockpiled materials and extended for a distance of over 2,500 feet laterally along the Prima Deshecha Cañada.
4. The preferred alternative for the remediation of the landslide was presented to various regulatory agencies in the form of an Environmental Impact Report (EIR) No. 575 in 2001. This alternative included the removal of most of the stockpiled soils and landslide debris, realignment of a portion of the Prima Deshecha Cañada to the south of its existing location, and construction of a shear-key and buttress for landslide stabilization.
5. In 2002, the County of Orange received the following permits/decisions regarding the proposed creek realignment project: Clean Water Act Section 401 Water Quality Certification (File Number 01C-112 dated February 21, 2002); Department of Army Permit No. 980065200-E51, Clean Water Act Section 404 permit (February 14, 2002); U.S. Fish and Wildlife Service Biological Opinion

- No. 1-6-02-F-703 (February 8, 2002); and the California Department of Fish and Game Section 1601 Stream Alteration Permit (March, 2002). These permits establish the mitigation requirements for the impacts associated with the proposed project to realign the Prima Deshecha Cañada.
6. On September 30, 2003 the Regional Board received a written request to amend the biological opinion associated with the previous water quality certification issued under provisions of the Clean Water Act, Section 401. The amendment proposes a slope stabilization project to remove approximately 336,000 cubic yards of soil from a cut slope located adjacent to (southeast of) the biomitigation channel. The plan also proposes to discharge the excavated soil to an area located immediately east and southeast of the proposed Phase B waste management unit.
 7. In July 2002, the County of Orange submitted a Report of Waste Discharge (ROWD) in the form of a Joint Technical Document (JTD) including the proposed development plans for Zone 1, phases B, C, and D, of the Prima Deshecha Landfill. The Regional Board continued to receive revisions and addenda to the ROWD through August 2003. The design includes the construction of three new waste cells and the use an engineered alternative liner system. The ROWD proposes to increase the permitted lined acreage of the Zone 1 waste management unit to a total of 271 acres of refuse fill area.
 8. The Joint Technical Document includes the requisite demonstration(s) for an engineered alternative to the prescriptive requirements for a liner system, as set forth in 40 CFR Sections 258.15 & 258.40, and CCR Title 27 Section 20080(b).

Federal Requirements

9. On August 16, 1993, this Regional Board adopted Order No.93-86, **“Waste Discharge Requirement Addendum for all MSW Landfills in this Region, to Implement State Water Board Resolution No. 93-62, As State Policy for Water Quality Control Under Section 13140 of the Water Code.”** Order No. 93-86 updated waste discharge requirements for all landfills in this region that received wastes after October 9, 1991, which includes the Prima Deshecha Landfill. By incorporating regulations contained in the Code of Federal Regulations, Title 40 (40 CFR), Part 258, Order No. 93-86 brought the affected landfills into compliance with both State and Federal Regulations.
10. The County of Orange previously submitted information to the Regional Board to comply with Federal Reporting requirements in Order 93-86, § 3, §4, §5, §8(a)(1) and §14.
11. State Water Resources Control Board (SWRCB) Resolution No. 93-62: “Policy for Regulation of Discharges of Municipal Solid Waste” requires that waste discharge requirements (WDRs) adopted by the Regional Board implement the

applicable sections of the Federal Regulations for MSW Landfills pursuant to Title 40, Code of Federal Regulations, Part 258.

Disposal of Contaminated Soils

12. On June 7, 1999, this Regional Board adopted Addendum No. 1 to Order No. 93-86, "**Maximum Concentration Limits for Soils Containing Nonhazardous Concentrations of Petroleum Hydrocarbons, Organic and Inorganic Compounds, Metals, and Pesticides for MSW Landfills with Subtitle D liners.**" Addendum No. 1 allowed for the disposal of lead contaminated waste and soils into landfills with liners and leachate collection and removal systems, which have been constructed in accordance with CCR Title 27 and 40 CFR.
13. Pursuant to requirements established in Section 25157.8(a) of the California Health and Safety Code, concentrations of lead that are discharged to lined waste management units, are required to comply with the concentration limits established in Addendum No. 1 to Order 93-86. The Regional Board finds that soil wastes, discharged into lined areas of the waste management unit and containing constituents below those concentration limits previously specified in Addendum No. 1 to Order 93-86, do not pose a significant threat to water quality.

Liner Systems

14. The Joint Technical Document (JTD) and addenda thereto, proposed the use of an engineered alternative liner system for the future lateral expansion areas of Zone 1 at the Prima Deshecha Landfill.
15. The liner systems constructed at the Prima Deshecha Landfill shall comply with either the prescriptive standards outlined in CCR Title 27 §20330 and 20340, or with the approved engineered alternative included in this Order.

Ground Water Quality

16. Ground water occurs primarily in canyon alluvium under unconfined and perched aquifer conditions above bedrock. Groundwater also occurs in fractured Siltstone and claystone of the Capistrano Formation, the sandstone, and conglomerate beds of the Monterey Formation, and the San Onofre Breccia in three distinct bedrock environments. The bedrock environments are (1) perched above low-permeability concretions or landslide slip-surfaces; (2) along fractures, joints and faults; and (3) within coarse-grained sandstone and conglomerate beds.

Water Quality Control Plan

17. The Prima Deshecha Landfill is located at the south end of La Pata Avenue, approximately 2.5 miles east of the City of San Juan Capistrano. The landfill is located in the San Clemente Hydrologic Area (1.30) of the San Juan Hydrologic Unit.

18. The **Water Quality Control Plan Report, San Diego Basin (9)** (hereinafter Basin Plan), was adopted by this Regional Board on September 8, 1994, and subsequently approved by the State Water Resources Control Board (State Board) on December 13, 1994. Subsequent revision to the Basin plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan designates beneficial uses and narrative and numerical water quality objectives, and prohibitions, which are applicable to the discharges, regulated under this Order.

19. The Basin Plan established the following beneficial uses of surface waters of the San Clemente Hydrologic Area (1.30):
 - (a) Agricultural Supply
 - (b) Non-contact Water Recreation
 - (c) Wildlife Habitat
 - (d) Preservation of Rare and Endangered Species

20. The Basin Plan established the following beneficial uses of ground waters of the San Clemente Hydrologic Area (1.30):
 - (a) Municipal and Domestic Supply
 - (b) Agricultural Supply

21. The Basin Plan established the following water quality objectives for surface waters of the San Clemente Hydrologic Area (1.30) not to be exceeded more than 10% of the time:

Constituent	San Clemente HA
Total Dissolved Solids	500 mg/l
Chloride	250 mg/l
Percent Sodium	60%
Sulfate	250 mg/l
Nitrogen & Phosphorus	*
Iron	0.3 mg/l
Manganese	0.05 mg/l
Methylene Blue Active Substances	0.5 mg/l
Boron	0.5 mg/l
Odor	None
Turbidity	20 NTU
Color	20 Units
Fluoride	1.0 mg/l

Note: mg/l = milligrams per liter NTU = Nephelometric Turbidity Units

* Concentrations of nitrogen and phosphorus, by themselves or in combinations with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, and 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/l total P. These values are not to be exceeded more than 10 percent of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = m 10:1 shall be used.

22. The Basin Plan established the following water quality objectives for ground waters of the San Clemente Hydrologic Area (1.30) not to be exceeded more than 10% of the time:

Constituent	San Clemente HA
Total Dissolved Solids	500 mg/l
Chloride	250 mg/l
Percent Sodium	60%
Sulfate	250 mg/l
Nitrogen & Phosphorus	N/A
Iron	0.3 mg/l
Manganese	0.05 mg/l
Methylene Blue Active Substances	0.5 mg/l
Boron	0.5 mg/l
Odor	None
Turbidity	5 NTU
Color	15 Units
Fluoride	1.0 mg/l

Note: mg/l = milligrams per liter NTU = Nephelometric Turbidity Units

CEQA and Other Legal References

23. This Order implements:
- (a) Water Quality Control Plan, San Diego Basin – Region 9;
 - (b) Standards and performance goals of Subdivision 1, Division 2, Title 27, California Code of Regulations, effective July 18, 1997, and subsequent revisions;
 - (c) Standards and performance criteria of Part 258, Title 40, Code of Federal Regulations (Subtitle D, Resource Conservation and Recovery Act); and
 - (d) State Water Resources Control Board Resolution No. 93-62, Policy for Regulation of Discharges of Municipal Solid Waste, adopted June 17, 1993.
24. This Order classifies the Prima Deshecha Landfill as a Class III landfill, based on review of monitoring reports, geologic siting criteria and construction standards, in accordance with CCR Title 27 Section 20080(e), Section 20240(b), and Section 21720(c), respectively.
25. The discharger proposes to expand waste management and disposal operations at the Prima Deshecha Landfill. The potential impacts of the proposed expansion of waste management and disposal operations were assessed in the Final Environmental Impact Report (EIR) that was certified by the County of Orange

on November 6, 2001. The Regional Board is relying upon the assessment of environmental impacts included in that document to satisfy the requirement to comply with the California Environmental Quality Act (CEQA).

Surface Water Quality

26. Surface drainage from the landfill is subject to State Board Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000001 (General Permit), **Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.**
27. Surface water discharges from earthwork and grading, associated with new construction of a waste management cell or related to maintenance of existing cells, is subject to Sections A and B of State Board Order No. 99 - 08 – DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, **Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.**
28. On July 25, 2003, the U.S. Environmental Protection Agency gave final approval to California's 2002 Section 303(d) List of Water Quality Limited Segments. In the San Diego Region, the Prima Deshecha Creek was identified as an impaired water body for the characteristics of phosphorous concentration and turbidity.

Mitigation of Unstable Conditions

29. The Prima Deshecha Landfill is located in an area that contains numerous landslides and surface evidence of slope failures. These conditions qualify the facility for consideration as being located in an area characterized by “rapid geologic change” (per CCR Title 27, § 20260) or as an “unstable area” (per of CFR Title 40, § 258.15).
30. The discharger has provided the Regional Board with information to support their conclusion that their proposed monitoring, design, construction and maintenance plans will ensure the integrity and performance of the Unit’s foundation, liner system, waste containment structures, and the structures which control leachate, surface drainage, erosion or gas.

Financial Assurances

31. The County of Orange shall establish financial assurances in the minimum amount of **\$36,082,127**. The financial assurances shall cover the costs estimated for closure, post-closure maintenance, and corrective actions for foreseeable releases from the following waste management units at the Prima Deshecha Landfill:

Task	Estimated Cost	Source of Cost Estimate
Closure, Zone 1	\$17,431,255	JTD (2002) Table 21
Post-Closure Maintenance and Monitoring, Zone 1	\$18,450,922	JTD (2002) Table 23
Corrective Actions for reasonably foreseeable releases, Zone 1	\$199,950	Cost Estimate letter dated April 11, 2003.
Total =	\$36,082,127	

The County of Orange shall update the financial assurances, as necessary to ensure that adequate funds are available, to cover the cost of closure, post closure monitoring and maintenance, and corrective actions in response to a reasonably foreseeable release from a waste management unit at the Prima Deshecha Landfill.

32. Funds associated with the financial assurances established pursuant to Finding No. 31 shall be made directly available to the Regional Board when the Regional Board finds that the County of Orange has failed or refuses to implement closure, post-closure monitoring and maintenance, or corrective actions in response to a release from the waste management units at the Prima Deshecha Landfill. Financial assurance instruments that do not provide the Regional Board direct access to funds are deemed unacceptable.
33. The Regional Board has notified the discharger and all known interested parties of its intent to update/revise waste discharge requirements for the Prima Deshecha Landfill.
34. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the County of Orange, (hereinafter the discharger) shall comply with the following:

A. PROHIBITIONS

1. Discharges of wastes to land that have not been specifically described to the Regional Board and for which valid Waste Discharge Requirements are not in force are prohibited.
2. The discharge of waste shall not:
 - (a) Cause the occurrence of coliform or pathogenic organisms in waters pumped from the basin;
 - (b) Cause the occurrence of objectionable tastes and odors in waters pumped from the basin;
 - (c) Cause waters pumped from the basin to foam;
 - (d) Cause the presence of toxic materials in waters pumped from the basin;
 - (e) Cause the pH of waters pumped from the basin to fall below 6.0 or rise above 9.0;
 - (f) Cause this Regional Board's objectives for the ground or surface waters as established in the Basin Plan, to be exceeded; or
 - (g) Cause pollution, contamination or nuisance or adversely affect beneficial uses of the ground or surface waters as established in the Basin Plan.
3. The discharge of any hazardous waste materials, as defined in CCR Title 22, at the Prima Deshecha Landfill is prohibited.
4. The discharge of liquid or semi-solid waste (*i.e.*, waste containing less than 50% solids) other than dewatered sewage or water treatment sludge as described in CCR Title 27, §20220(C) to the Landfill is prohibited.
5. The discharge of solid waste, liquid waste or leachate to surface waters, surface water drainage courses, or ground water is prohibited.
6. Odors, vectors, and other nuisances or waste origin beyond the limits of the landfill property boundary are prohibited.
7. The discharge of wastes outside of the existing footprint, without a prescriptive liner or engineered alternative liner as approved by this Order, is prohibited.
8. The discharge of municipal solid waste to a wetland [as defined in 40 CFR §232.2(r)] or to any portion thereof is prohibited.

9. The disposal of designated waste at the Prima Deshecha Landfill (unless approved by this Order) is prohibited unless the discharger establishes (in accordance with CCR Title 27, §20200(a)(1), and to the satisfaction of the Regional Board), that the designated waste will present a lower risk to water quality.
10. The discharge of solid waste, containing free liquid or moisture in excess of the waste's moisture holding capacity, into the Prima Deshecha Landfill is prohibited.
11. The discharge of leachate or landfill gas condensate to an MSW landfill is prohibited unless:
 - (a) The landfill gas condensate or leachate is being returned to the landfill that produced it; and
 - (b) The portion of the landfill to which these materials are discharged is equipped with a containment system meeting the requirements of **Discharge Specifications B.37, B.38, B39 and B.40** of this Order.
12. The discharge of wastes which have the potential to reduce or impair the integrity of the containment structure or which, if commingled with other wastes in the Prima Deshecha Landfill, could produce violent reactions, heat or pressure, fire or explosion, toxic byproducts, or reaction products with are prohibited, and in turn:
 - (a) Require a higher level of containment than provided by the Prima Deshecha Landfill;
 - (b) Constitute "restricted hazardous wastes"; or
 - (c) Impair the integrity of the containment structure.
13. Basin Plan prohibitions shall not be violated.
14. The dumping, deposition or discharge of waste directly into waters of the State, or adjacent to such waters in any matter, which may permit its being transported into the waters is prohibited.
15. Seepage of surface water from the biomitigation channel into the soils at the facility that contributes to the failure of any cut or fill slope, located at or adjacent to the waste management units, is prohibited.
16. The conveyance of surface water, or any resulting overflows of the biomitigation channel, shall not cause or contribute to the failure of any cut or fill slope located at or adjacent to the waste management units.

17. The facility surface water conveyance system, and operational failure thereof, shall not cause or contribute to the failure of any cut or fill slope located at or adjacent to the waste management units.
18. The facility surface water conveyance system, and operational failure thereof, shall not cause or contribute to the adverse impacts upon the integrity or performance of the Unit's foundation, liner system, or the structures which control leachate, surface water drainage, erosion, or gas.
19. The discharger shall not allow the accumulations of surface water (*i.e.*, ponding) or accumulations of groundwater, to cause or contribute to adverse impacts upon the integrity or performance of the Unit's foundation, liner system, or the structures which control leachate, surface water drainage, erosion, or gas.
20. The discharge or placement of "surplus soils", *e.g.*, stockpiled soils associated with landfill construction projects or used in landfill operations, shall not cause or contribute to the failure of engineered slopes on cut or fill material, or natural ground, or create adverse impacts upon the integrity or performance of the Unit's foundation, liner system, or the structures which control leachate, surface drainage, erosion or gas.
21. The discharge of waste into a natural or excavated site below historic water levels is prohibited.
22. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.

B. DISCHARGE SPECIFICATIONS

1. Only nonhazardous wastes and inert wastes as defined in CCR Title 27, §20220 and §20230 may be disposed of at the Prima Deshecha Landfill.
2. The discharge of wastes shall be confined to the designated disposal area at all times.
3. The discharger is responsible for accurate characterization of wastes, including determinations of whether or not wastes will be compatible with containment features and other wastes at the Prima Deshecha Landfill in order to comply with CCR Title 27, §20200(C), and whether or not wastes are required to be managed as hazardous wastes under CCR Title 22, Division 4.5, §66300 *et seq.*

4. Water used for facility maintenance shall be limited to the minimum volume necessary for dust control, shall only be applied by spraying, shall be applied only on covered areas and not on trash, and only in quantities not to exceed those necessary to reduce immediate dust hazards.
5. Methane and other landfill gases shall be adequately vented, removed from landfill units, or otherwise controlled to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration of waste constituents through the vadose (unsaturated) zone.
6. The owner of the waste management facility shall have the continuing responsibility to assure the protection of waters of the State from the discharges of waste and from gases and leachate generated by discharged waste during the active life, closure, and post-closure maintenance period of the WMUs, and during subsequent use of the property for other purposes.
7. The discharger shall maintain at least 5 feet of vertical separation between the ground water and waste material at all times.
8. The Prima Deshecha Landfill shall have an approved load check program in compliance with CCR Title 27, §20870.
9. During the rainy season, the landfill shall be operated and graded to minimize infiltration and the production of leachate. The active disposal area shall be confined to the smallest area practicable, based on the anticipated quantity of waste discharge and other waste management facility operations.

Monitoring

10. The discharger shall implement the attached **Monitoring and Reporting Program No. R9-2003-0306** in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Unit, any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the Unit, or any slope failure(s) that threaten(s) to impact the integrity or performance of the Unit's foundation, liner system, waste containment structures, or the structures which control leachate, surface drainage, erosion or gas.
11. The discharge shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring, pursuant to Section B of the attached **Monitoring and Reporting Program No. R9-2003-0306**.

Erosion Control

12. Annually, prior to the anticipated rainy season but no later than October 31; the discharger shall implement any necessary erosion control measures, and shall complete any necessary construction, maintenance, or repairs of precipitation and drainage control facilities to prevent erosion, ponding, flooding, or to prevent surface drainage from contacting or percolating through wastes at the facility. This specification shall not preclude the discharger from performing maintenance, and repairs necessitated by changing site conditions can be made at any time.
13. The discharger shall develop and implement structural and non-structural Best Management Practices (BMPs) to prevent erosion of cover materials and in areas undergoing landfill containment system construction and/or maintenance.
14. Effective BMPs are best implemented on a site-specific basis, and may include, but are not limited to the use of: bonded fiber matrix, anchored fiber rolls, fiber blankets, hydroseeding/vegetating, judicious use of energy dissipation methods to decrease the velocity of runoff, and other equivalent measures as appropriate.
15. All areas, including surface drainage courses shall be maintained to minimize erosion. The landfill cover shall be maintained to minimize percolation of liquids through wastes.

Surface Drainage

16. The discharger shall comply with all requirements for control of storm water discharges pursuant to State Board Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000001 (General Permit), **Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.**
17. Surface water discharges from earthwork and grading, associated with new construction or related to maintenance of existing cells, shall implement Sections A and B of State Board Order No. 99 - 08 – DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, **Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.** The discharger shall revise their Storm Water Pollution Prevention Plan (SWPPP), and/or update the SWPPP, as necessary to include provisions to implement requirements of Sections A and B of Order 99-08-DWQ.
18. Surface drainage from tributary areas and internal site drainage from surface and subsurface sources shall not contact or percolate through waste and shall either be contained onsite or be discharged in accordance with applicable storm water regulations.

19. Any precipitation that falls on the working face of the landfill and comes in contact with the waste (contact water) shall be treated as leachate. The working face of the landfill shall be limited to one day of operation at a time, so as to minimize the amount of contact water.
20. Non-contact surface water runoff within the boundary of the landfill (*i.e.*, precipitation that falls on the landfill) shall be collected by the stormwater conveyance system and any additional site-specific BMPs that may be necessary to divert the runoff away from the landfill unit, without coming in contact with any waste.
21. Where surface flows result in erosive flow velocities, erosion control material shall be used for protection of drainage conveyance features. Effective erosion control BMPs shall be implemented on interim bench ditches to control erosion when necessary.
22. Where high surface water flow velocities occur at terminal ends of downchutes or where downchutes cross the landfill cover access roads, effective erosion control and surface water conveyance BMPs shall be implemented by the discharger.
23. Sediments shall be removed from the detention basins and all drainage facilities whenever the volume of the basin or facility has been reduced by 25% of the design capacity.
24. Diversion and drainage facilities shall be designed, constructed and maintained to take into account:
 - (a) the expected final contours for closed portions of Units including its planned drainage pattern;
 - (b) the drainage pattern for operating Units at any given time;
 - (c) the possible effects of the Unit's drainage pattern on and by the regional watershed;
 - (d) the design capacity of the drainage systems of downstream and adjacent properties by providing for the gradual release of retained water downstream in a manner that does not exceed the expected peak flow rate at the point of discharge if there were not a waste management facility.

Landfill Construction

25. The Prima Deshecha Landfill shall be designed, constructed and operated to prevent inundation or washout due to a flood with a 100-year return period.

26. Class III landfill units and related containment structures shall be constructed and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under a 100-year, 24-hour storm event.
27. Each landfill unit phase constructed after the effective date of this Order shall be designed and constructed in accordance with CCR Title 27 and this Order.
28. Landfill areas with intermediate cover (as defined in CCR Title 27, §20700), which have been/will be exposed for longer than two years from the time the intermediate cover was installed, shall have a minimum of two-feet of soil cover maintained over the landfill unit. Intermediate cover shall be designed and constructed to minimize percolation of liquids through wastes.
29. Hydraulic conductivity of soils used in containment structures, as determined through laboratory methods, shall be confirmed by appropriate field testing and the results shall be submitted to the Regional Board in a final Construction Quality Assurance (CQA) Report prior to the placement of waste.
30. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure and post-closure maintenance period of the waste management unit.

Slope Stability

31. All landfill units, including the foundation, final slopes and containment systems, shall be designed and constructed to withstand the maximum probable earthquake (MPE) without damage to the foundation, waste containment structures, or to the structures which control leachate, surface drainage, erosion or gas.
32. All interim cut and/or fill slopes shall be designed, constructed and maintained to prevent adverse impacts upon the integrity or performance of the Unit's foundation, liner system, waste containment structures, or the structures which control leachate, surface drainage, erosion or gas.
33. The design of all temporary cut and/or fill slopes shall be approved by a technical professional appropriately licensed by the State of California. All temporary cut and/or fill slopes shall be designed, constructed and maintained to prevent them from causing adverse impacts upon the integrity or performance of the Unit's foundation, liner system, waste containment structures, or the structures which control leachate, surface drainage, erosion or gas. All temporary slopes must comply with this specification throughout the range of weather and hydrogeological conditions experienced during the existence of the temporary slope.

34. All final cut and fill slopes must have a minimum dynamic factor of safety of at least 1.5, or meet the alternative design requirements as required by CCR Title 27 §21750(f)(5).
35. Additional phases or waste management units shall not be put into service until additional slope stability analyses have been completed and the Regional Board has adopted waste discharge requirements for the design and operation of those units.
36. The discharger shall design, construct and maintain all containment structures so they are capable of preventing degradation of waters of the state, as a result of discharging waste into the waste management unit.

Liner System

37. The engineered alternative liner used for side slope areas in Zone 1 shall consist of (from bottom to top): an 80-mil geomembrane (textured side down); a 16-ounce geotextile; gravel drains along the benches; and a protective soil cover at a minimum thickness of two feet.
38. The engineered alternative liner used for the bottom of the waste management unit (with gradients less than 5:1) in Zone 1 shall be constructed to meet the following design criteria (from bottom to top): a dendritic array of subdrain collection trenches lined with 12-ounce geotextile and filled with gravel; a minimum one-foot thick compacted, low-permeability soil layer with a hydraulic conductivity less than or equal to 1×10^{-6} cm/sec; an 80-mil HDPE geomembrane (textured both sides); a 12-ounce geotextile; a minimum one-foot thick LCRS layer with a redundant dendritic array of collection pipes; an 8-ounce geotextile; and a minimum two-foot thick protective soil cover.
39. The discharger shall ensure that the juncture between the bottom and side slope liner systems (at the base of the slopes) is constructed in a manner that does not cause or contribute to adverse impacts upon the integrity and performance of the Unit's foundation, liner system, or the structures which control leachate, surface water drainage, erosion or gas.

Leachate Collection and Removal System

40. All containment systems shall include a leachate collection and removal system (LCRS) which shall effectively convey all leachate which reaches the liner, to an appropriately lined sump or other appropriately lined collection area. The LCRS shall not rely upon unlined or clay-lined areas for such conveyance.

41. Materials used to construct the LCRS shall have appropriate physical and chemical properties to ensure the required transmission of leachate over the life of the WMU and the post-closure maintenance period.
42. The LCRS shall be designed, constructed, and maintained to collect twice the anticipated daily volume of leachate generated by the WMU and to prevent the buildup of hydraulic head on the underlying liner at any time. The depth of fluid in any LCRS sump shall be kept at or below six inches, the minimum needed to ensure efficient pump operation.
43. The LCRS shall function without clogging throughout the active life of the WMU and during the post-closure maintenance period.
44. Leachate generation by a landfill unit LCRS shall not exceed 85% of the design capacity of the LCRS or the sump pump. If leachate generation exceeds this value and/or if the depth of fluid in the LCRS sump exceed 24 inches, then the discharger shall immediately cease the discharge of sludge and other high-moisture wastes to the landfill unit and shall notify the Regional Board in writing within **seven days**. Notification shall include a time-table for a corrective action necessary to reduce leachate production.

Contaminated Soils within Lined Areas

45. Samples of waste soils shall be collected in accordance with sampling guidelines set forth in the 1996 edition of "*Test Methods for Evaluating Solid Waste, Physical / Chemical Methods, SW-846*", U.S. Environmental Protection Agency. At a minimum, for quantities of soil less than or equal to 500 cubic yards, four samples shall be collected per 100 cubic yards of waste soil. For quantities of soil between 500 to 5000 cubic yards, an additional sample shall be collected for every 500 cubic yards.
46. Waste soils shall only be discharged into lined areas specifically approved by the Regional Board in accordance with this Order. Waste soils may also be utilized for daily landfill cover within lined units if approved for such use by the appropriate agencies.
47. All soil wastes received for disposal at the Prima Deshecha Landfill are to be certified as California non-hazardous according to the criteria found in CCR Title 22.
48. Lined Class III Waste Management Units, constructed in compliance with this Order, may accept only waste soils contaminated with petroleum hydrocarbons, organic and inorganic compounds, metals, and pesticides below the following concentration limits which could pose a threat to water quality if discharged in an uncontrolled manner:

- (a) Soils containing non-hazardous concentrations of metals and pesticides, organic and inorganic compounds shall not exceed hazardous waste classifications as determined using the waste extraction test (WET) (Reference: CCR Title 22, §66261.24, as amended).
- (b) Soils containing non-hazardous concentrations of metals, pesticides, organic and inorganic compounds shall not exceed maximum concentrations of contaminants using the Toxicity Characteristic Leaching Procedure (TCLP) analysis (Reference: CCR Title 22, §66261.24, as amended).
- (c) The discharge of total lead at concentrations shall not exceed the threshold for hazardous concentration established in CCR Title 22. The current level is 1,000 mg/kg (ppm). This Order would not affect the concentration levels established in CCR Title 22, §25157.8(a) for Nickel and Copper, as these are equivalent to the threshold for hazardous waste for concentration levels in CCR Title 22.
- (d) Concentration limits for waste soils containing non-hazardous concentrations of pesticides, and organic and inorganic compounds. The maximum concentration levels found in Attachment Nos. 3 & 4 shall be used to determine if waste soils containing the above-referenced constituents are acceptable for disposal.
- (e) Concentration limits for waste soils containing non-hazardous concentrations of petroleum hydrocarbons. The following maximum concentration levels will be used to determine if waste soils containing petroleum hydrocarbons are acceptable for disposal.

Petroleum Hydrocarbon Contaminant	Maximum Concentration Limits	
Gasoline and lighter end hydrocarbons (C ₄ -C ₁₂)	1,000 ppm TPH	1,000 -5,000 ppm TPH w/RCI and 96 hour bioassay
Diesel fuel, Kerosene Oil, Jet Fuel, (C ₈ -C ₂₂)_heavy end hydrocarbons	3,000 ppm TPH	3,000 -15000 ppm TPH w/RCI and 96 hour bioassay
Hydraulic Oil, Cutting and Grinding Oil, Virgin Motor Oil, Waste Oil (C ₈ -C ₄₀ heavy end hydrocarbons)	3000 ppm TRPH	3,000 -15000 ppm TPH w/RCI and 96 hour bioassay

TPH - Total Petroleum Hydrocarbon

TRPH - Total Recoverable Petroleum Hydrocarbon

RCI - Hazardous Waste Criteria for Reactivity, Corrosivity, Ignitability and 96-Hour Acute Bioassay as established by CCR 22

49. Test Methods for Soils Containing Petroleum Hydrocarbons:

The following test methods shall be performed for soils containing Petroleum Hydrocarbons:

Petroleum Constituent	TPH (8015B) Gas	TPH (8015B) Diesel	(EPA 418.1)	BTEX (8021 B)	Lead (TCLP)	Metals (Cd, Cr, Pb, Ni, Zn), OX, and PCBs	Semi-Volatile Organics (8270C or EPA 625)	Volatile organics (8260B)	Metals (CAM 17), and PCBs
Leaded Gasoline									
Unleaded gasoline					*				
Kerosene Oil									
Jet Fuel									
Diesel Fuel									
Hydraulic Oil									
Cutting and Grinding Oil									
Virgin Motor Oil									
Waste Oil									

* with documentation that only unleaded gas was historically on site

50. Test Methods for Soils Containing Metals and Pesticides

The analyses can include the following methodologies:

TPH (418.1)
 8260B
 8270C (Semi-VOCs)

TCLP Analysis (8 RCRA metals)
 CAM 17
 8081 (Chlorinated pesticides)

8151A (herbicides)	8082 (Polychlorinated biphenyls – PCBs)
8015B (Nonhalogenated Volatiles)	8021B (Aromatic and halogenated volatiles)

51. Recordkeeping

Copies of the waste approvals will be kept on file at the facility and at a minimum will include:

- (a) Certification from the generator certifying that the analyses submitted are representative of the material to be disposed.
- (b) Analytical data or Material and Safety Data Sheets representing the waste stream.
- (c) The Chain-of-Custody form showing the sample's integrity was not compromised.
- (d) The approximate yardage of the material and the transporter information.

Closure and Post-Closure

- 52. The closure of the Prima Deshecha Landfill shall be in accordance with CCR Title 27 Chapter 3, Subchapter 5, Articles 1 and 2, Section 21710(d), and under the direct supervision of a California registered civil engineer or certified engineering geologist.
- 53. At closure, the Prima Deshecha Landfill shall receive a final cover, which is designed and constructed to function with minimum maintenance, and shall consist of, at a minimum, a 2-foot thick foundation layer (which may contain waste materials), overlain by a 2-foot thick clay liner having a permeability of 1×10^{-6} cm/sec or less, overlain by a one-foot vegetation layer or an engineered equivalent final cover approved by the Regional Board pursuant to CCR Title 27, §20800(b) and (c).
- 54. The post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units (WMUs) will not threaten water quality [CCR Title 27, §20950(a)(1)].
- 55. Vegetation used at the site shall be selected to require minimum irrigation and maintenance, and shall not impair the integrity of the landfill cover or containment structures.
- 56. The discharger shall comply with all applicable requirements of CCR Title 27, Subchapter 5, Article 2 for Closure and Post-Closure maintenance of the Prima Deshecha Landfill.

C. PROVISIONS

1. GENERAL PROVISION

Neither the treatment, nor the discharge of waste shall create a condition of pollution, contamination, or nuisance, as defined by §13050 of the California Water Code.

2. DUTY TO COMPLY

The discharger shall comply with all applicable provisions of CCR Title 27 and all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for: (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a Report of Waste Discharge in application for new or revised Waste Discharge Requirements.

3. COMPLIANCE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order.

4. CORRECTIVE ACTION

The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

5. FINANCIAL ASSURANCES FOR CLOSURE, POST-CLOSURE AND CORRECTIVE ACTION

Within **one year** of the effective date of this Order, the discharger shall establish and maintain adequate and acceptable assurances of financial responsibility for closure, post-closure monitoring and maintenance, or implementation of corrective action in response to a release of waste constituents from the waste management units. The discharger shall ensure that their selected financial assurance instrument meets the following minimum criteria:

- (a) The financial assurance instrument makes funds directly available to the Regional Board upon a finding by the Regional Board that the discharger has failed or refuses to implement closure, post-closure monitoring and

maintenance, or conduct corrective actions in response to a release of waste constituents from the waste management unit.

- (b) The amount of the financial assurances are regularly updated to ensure that adequate funds can be made directly available to the Regional Board for implementation of closure, post-closure monitoring and maintenance, or corrective action.

When the discharger notifies the Regional Board of a transfer of ownership (per **PROVISION C.8** and **REPORTING REQUIREMENT D.3**), the notification shall include a proposed schedule for the succeeding owner to provide evidence of acceptable financial assurance responsibility to the Regional Board.

6. PROPER OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate laboratory and process controls including appropriate quality assurance procedures.

7. REVISION OF WASTE DISCHARGE REQUIREMENTS

This order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- (a) Violation of any terms or conditions of this Order;
- (b) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
- (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

8. CHANGE IN OWNERSHIP

This Order is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and reissuance of this Order to, change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code.

The discharger shall submit notice of any proposed transfer of this Order's responsibility and coverage under **Reporting Requirement D.3.**

9. PROPERTY RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state, or local laws, nor create a vested right for the owner and operator to continue the regulated activity.

10. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law to:

- (a) Enter upon the discharger premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order;
- (d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location; and
- (e) To photograph or videotape any structures, facilities, activities, or other conditions that could result in adverse impacts to water quality and that are pertinent to compliance with this Order.

11. REPOSITORY FOR WASTE DISCHARGE REQUIREMENTS

A copy of this Order shall be maintained at the local offices of the discharger and shall be available to operating personnel at all times.

12. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid,

the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

13. EFFECTIVE DATE

This Order becomes effective on the date of adoption by the Regional Board. This Order supersedes any existing waste discharge requirements, including Order No. 93-86, Order No.89-102, and addenda thereto.

D. REPORTING REQUIREMENTS

1. CHANGE IN DISCHARGE

The discharger shall file the following reports in accordance with the following schedules:

(a) Report of Waste Discharge

The discharger shall file a new report of Waste Discharge **at least 120 days** prior to the following:

- (i) An increase in area or depth to be used for solid waste disposal beyond that specified in waste discharge requirements;
- (ii) A significant change in the disposal method, location or volume (*e.g.*, change from land disposal to land treatment);
- (iii) A change in the type of waste being accepted for disposal;
- (iv) The addition of a major industrial waste discharge to a discharge of essentially domestic waste, or the addition of a new process or product by an industrial facility resulting in a change in the character or type of waste being discharged;
- (v) Any planned change in the regulated facility or activity which may result in noncompliance with this Order; or
- (vi) Any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on.

(b) Workplan

The discharger shall submit a workplan **at least 30 days** prior to any maintenance activities that could alter existing surface drainage patterns or change existing slope configurations. These activities may include, but not be limited to, significant grading activities, the importation of fill material, the design and installation of soil borings, ground water monitoring wells, and other devices for site investigation purposes.

(c) Design Report

At least 120 days prior to the beginning of construction for each new construction phase, a Final Design Report shall be submitted to Regional Board and shall include, but not be limited to, the engineered design plans, the contract specifications, a construction quality assurance (CQA) plan to verify that construction specifications will be met, and a revised water quality monitoring plan. A final construction report shall be submitted to the Regional Board after each phase of construction and prior to the discharge of waste into the constructed cell. The final construction report shall include, but not be limited to, as-built plans, a CQA report with a written summary of the CQA program and all test results, analyses, and copies of the inspector's original field notes, and a certification as described in CCR Title 27, §20324.

(d) Written Notification

The discharger shall provide written notification at least **2 working days** prior to any maintenance activities that are minor and/or routine in nature, do not add a significant amount of water, do not inhibit drainage, have limited potential for impacts to beneficial use of water, and will not interfere with future routine maintenance. These activities may include, but not be limited to:

- (i) routine maintenance grading and dust control;
- (ii) landscaping with minimal/no water application;
- (iii) gas surveys with temporary probes; or
- (iv) replacement/removal of gas collection wells.

2. GENERAL REPORTING REQUIREMENT

The discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish, upon request by the Regional Board Executive Officer, copies of records required by this Order.

3. CHANGE IN OWNERSHIP

The discharger shall notify the Regional Board, in writing, at least **30 days** in advance of any proposed transfer of this Order's responsibility and coverage between the current owner and new owner for construction, operation, closure, or post-closure maintenance of a landfill. This agreement shall include an acknowledgement that the existing owner is liable for violations up to the transfer date and that the new owner is liable from the transfer date on. The agreement shall include an acknowledgement that the new owners shall accept responsibility for compliance with this Order that includes the post-closure maintenance of the landfill.

4. INCOMPLETE REPORTS

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

5. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance, which may endanger human health or the environment. Any such information shall be provided orally to the Regional Board **within 24 hours** from the time the owner becomes aware of the circumstances. A written submission shall also be provided **within five days** of the time the owner becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. The Regional board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

6. SLOPE FAILURE

The Regional Board shall be notified immediately upon a determination by the discharger that a slope failure is occurring, or has occurred, at the facility. The

discharger shall promptly repair any slope failure that affects or threatens the integrity or performance of the Unit's foundation, liner system, waste containment structures, or the structures which control leachate, surface drainage, erosion or gas. Any temporary slope, constructed as part of an engineering measure to mitigate slope stability, must comply with requirements of **Discharge Specification B.33** of this Order.

The discharger shall submit with the next monitoring report, or sooner as directed by the Regional Board, a written summary of actions that were implemented to correct any slope failures, damage to any waste containment structures or to the structures/systems, which control leachate, surface drainage, erosion, or gas.

7. SEEPAGE

The discharger shall immediately report by telephone concerning the discovery of any previously unreported seepage of liquid from any active, inactive, or closed waste management unit at the Prima Deshecha Landfill. A written report shall be filed with the Regional Board within **seven days**, containing at least the following information:

- (a) A map showing the location(s) of the seepage;
- (b) An estimate of the flow rate;
- (c) A description of the nature of the discharge (*e.g.*, all pertinent observations and analyses); and
- (d) Corrective measures needed to clean up waste and abate threats of discharge and existing or threatening conditions of pollution or nuisance.

8. LANDFILL GAS

The discharger shall operate and maintain a landfill gas migration control and detection system as required by the Air Pollution Control District (APCD) and the Local Enforcement Agency (LEA).

9. MONITORING AND REPORTING PROGRAM

The discharger shall comply with the attached **Monitoring and Reporting Program No. R9-2003-0306**.

10. REPORT DECLARATION

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

- (a) The Report of Waste Discharge shall be signed as follows:
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, respectfully.
 3. **For a municipality, state, federal, or other public agency** – by either a principal executive officer or ranking elected official.
- (b) All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
1. the authorization is made in writing by a person described in paragraph (a) 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; and
 3. The written authorization is submitted to the Regional Board.
- (c) 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.”

11. REGIONAL BOARD ADDRESS

The discharger shall submit all reports required under this Order and other information requested by the Regional Board to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
Attn: Land Discharge Unit Supervisor

E. NOTIFICATIONS

1. CIVIL MONETARY REMEDIES

The California Water Code (§13350) provides that any person who intentionally or negligently violates any Waste Discharge Requirements issued, reissued, or amended by this Regional Board is subject to administrative civil liability of up to 10 dollars per gallon of waste discharged, or if no discharge occurs, up to 1,000 dollars per day of the violation. The Superior Court may impose civil liability of up to 10,000 dollars per day of the violation, or if a cleanup and abatement order has been issued, up to 15,000 dollars per day of the violation.


2. PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS

The California Water Code (§13268) provides that any person failing or refusing to furnish technical or monitoring program reports, as required by the Regional Board, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor. Under those conditions, the Regional Board may administratively impose a civil liability of up to 1,000 dollars per day of the violation.

3. CCR TITLE 27 DEFINITIONS

Definitions of terms used in this Order shall be as set forth in the California Code of Regulations, Title 27, §20164.

I, John H. Robertus, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on November 12, 2003.


JOHN H. ROBERTUS
Executive Officer