STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2016-0052

AMENDING WASTE DISCHARGE REQUIREMENTS FOR DISPOSAL OR REUSE OF CONTAMINATED SOILS AND CERTAIN WASTE/WASTE-DERIVED MATERIALS AT ACTIVE NONHAZARDOUS MUNICIPAL SOLID WASTE LANDFILLS WITHIN THE SANTA ANA REGION

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board) finds that:

1. Regulations governing nonhazardous municipal solid waste landfills are included in the California Code of Regulations (CCR), Title 27, Division 2, Subdivision 1, and Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Title 27).

2. Pursuant to Title 27, §20220(a), nonhazardous municipal solid wastes[1] (MSW) mean "all putrescible and non-putrescible solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes and other discarded wastes (whether of solid or semi-solid consistency); provided that such wastes do not contain wastes which must be managed as hazardous wastes, or waste which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e. designated waste[2])."

3. Pursuant to Title 27, §20200(a), wastes are classified based on their risk of impairment to groundwater:

    a. Nonhazardous municipal solid wastes are classified as Class III wastes, and are disposed of at a Class III landfill.
    b. Designated wastes are classified as Class II wastes, and may be disposed of at a Class I, II, or III composite-lined landfill.
    c. Hazardous wastes are classified as Class I wastes, which are managed and regulated under CCR, Title 22, Division 4.5 by the California Department of Toxic Substances Control (DTSC).

Contaminated Soils

4. Soils contaminated with moderate concentrations of total petroleum hydrocarbons (TPH)[3], volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), and California Administrative Manual (CAM) metals, are wastes as defined in California Water Code (CWC) §13050 and

[1] California Code of Regulations, Title 27, §20220(a)
[2] See Finding 12 for the definition of designated waste.
[3] TPH for full chain of hydrocarbons reported as C_4-C_{12}, C_{13}-C_{22}, and C_{23}+ ranges

are required to be regulated under waste discharge requirements pursuant to CWC §13263(a). The discharge of such wastes to land for disposal or reuse could affect the quality of the waters of the State if not properly managed. However, land disposal or reuse of contaminated soils at properly engineered and managed MSW landfills is an efficient and economical means of minimizing the impacts to water quality from such discharge of waste.

5. Active MSW landfills in the Santa Ana Region are currently regulated under individual waste discharge requirements (WDRs), prepared in compliance with Title 27, issued at various times to accept nonhazardous MSW. Such WDRs generally do not include requirements for the disposal or reuse of contaminated soils. Acceptance and disposal of nonhazardous contaminated soils at the Region's active landfills was overseen by Regional Board staff on a case-by-case basis. Due to a relatively large number of requests for disposal, addressing these waste discharges involved a significant time commitment for Regional Board staff. In consideration of these circumstances and limited staff resources, it is necessary to amend existing waste discharge requirements for the active landfills and specify conditions for disposal or reuse of contaminated soils.

6. On April 25, 2014, the Regional Board adopted waste discharge requirements, Order No. R8-2014-0006, amending the existing WDRs for the active landfills (listed below) in the Santa Ana Region to establish waste acceptance criteria and facilitate the screening and acceptance of nonhazardous contaminated soils for disposal or reuse at these landfill sites.

Landfill Name	Existing WDRs
Lamb Canyon Landfill	Order No. R8-2013-0003
El Sobrante Landfill[4]	Order No. R8-2011-0014
Badlands Landfill	Order No. 91-105
Frank R Bowerman Landfill	Order No. R8-2010-0017
Olinda Alpha Landfill	Order No. R8-2010-0006
Mid-Valley Landfill	Order No. 98-095
Colton Landfill[5]	Order No. 91-039
San Timoteo Landfill	Order No. 78-151
California Street Landfill	Order No. R8-2004-0008

7. Order No. R8-2014-0006 amended the existing WDRs to establish waste acceptance criteria and procedures for the disposal or reuse of nonhazardous contaminated soils at the active landfills (see Footnote 4) in the Santa Ana Region. It also specifies a monitoring and reporting program and other activities, including collecting storm water samples and analyzing parameters related to contaminated soils. The storm water sampling and analysis specified in Order No. R8-2014-0006 is no longer necessary as a result of the adoption of the state-wide Industrial General Permit (See Finding 24 of this Order). This Order removes the storm water sampling and analysis requirement.

8. Since the adoption of Order No. R8-2014-0006, a need has arisen to include waste

[4] On September 16, 2016, Order No. R8-2011-0014 was revised and replaced by Order No. R8-2016-0034. Order No. R8-2016-0034 removed El Sobrante Landfill from coverage under Order No. R8-2014-0006 and has incorporated requirements for acceptance, management, and disposal or reuse of contaminated soils, CRT panel glass, and waste-derived materials. Therefore, this Order is not applicable to El Sobrante Landfill.

[5] Colton Landfill has ceased operations since December 2014 and is no longer active. Therefore, this Order is not applicable to Colton Landfill.

acceptance criteria for disposal or reuse of other wastes, such as cathode ray tube (CRT) panel glass, and waste-derived materials. In addition, existing waste discharge requirements for certain active landfills in the Santa Ana Region do not include a provision to allow the disposal of designated waste[6] in composite-lined[7] units at these sites. Therefore, Order No. R8-2014-0006 is being revised to include additional requirements for the reuse of waste-derived materials, and to allow for the disposal of authorized designated waste in lined units at the active landfills.

CRT Panel Glass

9. In September 2014, the DTSC re-adopted emergency regulations[8] that expanded options for disposition of cathode ray tubes (CRTs), a hazardous waste, and CRT panel glass, which are components of older televisions and monitors. The emergency regulations provide CRT waste handlers with the added option of disposing of CRT panel glass at a Class II or Class III, composite-lined landfills.

10. CRT glass includes two types of glass. CRT *panel* glass forms the viewing surface with the phosphor screen and *does not contain* lead. CRT *funnel* glass forms the glass structure that extends from the phosphor viewing surface to the cathode ray guns and *does contain* lead. As stated in CCR, Title 22, §66261.4(h), CRT panel glass that meets the disposal criteria specified in §66273.81 of the emergency regulations is not a hazardous waste, and disposal at a composite-lined unit at a Class II or Class III landfill is allowed provided that it is managed in accordance with the standards specified in CCR, Title 22, §66273.73 and §66273.75.

11. Existing WDRs for the active MSW landfills do not include a provision for the acceptance of CRT panel glass, for which the DTSC has adopted emergency regulations for disposal, at composite-lined units at a Class II or III landfill. This Order includes requirements for the acceptance and disposal of CRT panel glass at active landfills (listed in Table 1) in the Region.

Designated Wastes

12. Pursuant to CWC §13173, a designated waste is defined as:

    a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Section 25143 of the Health and Safety Code, or

    b. Nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

[6] See Finding 12 for definition of a "designated waste".
[7] A composite-lined unit is equipped with a composite liner system that includes a flexible membrane (geomembrane) overlaying 2 feet of compacted clay soil, meeting the requirements of Title 27, §20330. This composite liner system collectively forms a barrier on the bottom and sides of the landfill to protect groundwater and the underlying soil from leachate releases. Alternatively, the 2-foot compacted clay layer may be substituted by an approved engineered design allowed under Title 27, §20080(d).
[8] The emergency regulations, which expired on September 15, 2016, were re-adopted by the DTSC and became effective on September 12, 2016. The emergency regulations shall remain in effect for a period of two years while DTSC finalizes a permanent regulations package.

13. A designated waste that has been granted a variance by the DTSC from hazardous waste management, and that could reasonably be expected not to release pollutants in concentrations exceeding applicable water quality objectives can be authorized by the Executive Officer (EO) of the Regional Board for disposal at a composite-lined unit of a Class III landfill. Because there are no Class II landfills in the Region, it is practical to include a provision in these WDRs to allow for the disposal of designated waste in a composite-lined unit of an active Class III landfill, provided that it can be demonstrated that acceptance of the designated wastes will not cause exceedance of water quality objectives and impairment of the beneficial uses of the receiving waterbodies. This Order amends the existing WDRs to allow the disposal of authorized designated waste at a composite-lined unit of the active landfills.

Waste-Derived Materials

14. Assembly Bill (AB) AB 939 was enacted in 1989 to guide the California Department of Resources, Recycling and Recovery (CalRecycle) and to require local agencies to reduce, reuse, recycle, compost, and divert waste from disposal at landfills. One of the more recent California Statutes, AB 341, establishes a statewide goal of 75% recycling or composting by 2020.

15. With emerging solid waste laws and regulations to reduce greenhouse gas emission, and landfill owners'/operators' quest to preserve landfill space and be cost-efficient, it is anticipated that requests for reuse, rather than disposal, of contaminated soils and waste-derived materials, as a component of environmental control systems, will continue to grow – more specifically, for use of the contaminated soils and waste-derived materials as alternative intermediate[9] and alternative daily cover (ADC)[10].

16. Waste-derived materials are waste materials, including CalRecycle's list of approved ADC materials[11] in Title 27, §20690, that have been processed, treated, or otherwise re-conditioned so that the material may be beneficially reused for structural, engineering, or other alternative purposes. Some of these waste-derived materials include, but are not limited to, tire-derived aggregate, compost, processed green material, and crushed asphalt concrete.

17. Title 27, §20705 stipulates minimum standards and limitations for the use of waste-derived materials for daily and intermediate covers (collectively referred to as interim cover). However, Title 27 does not include acceptance criteria for other potential uses of waste-derived materials.

18. Pursuant to Title 27, §20686, beneficial reuse of solid wastes at MSW landfills shall include, but not be limited to, the following: ADC, alternative intermediate cover, final cover foundation layer, liner operations layer, leachate and landfill gas collection system, construction fill, road base, wet weather operation pads and access roads, and soil amendments for erosion control and landscaping.

[9] An alternative intermediate cover means a cover, consisting of material other than at least twelve (12) inches of compacted, clean earthen material, placed on all fill surfaces where additional waste cells are not to be constructed for 180 days or more to control vectors, fires, odors, blowing litter, scavenging, and drainage without presenting a threat to human health and the environment [Title 27, §20700(a)].
[10] An alternative daily cover means a cover, consisting of material other than at least six (6) inches of clean earthen material, of alternative thickness used at a landfill on all surfaces of the fill where solid waste will be deposited within 180 days to control vector, fire, odor, blowing litter, and scavenging without presenting a threat to human health and the environment [Title 27, §20690(a)(1)].
[11] See Finding 22 for the CalRecycle's approved list of ADC materials.

19. Existing WDRs for the active landfills do not include waste acceptance criteria or provisions for beneficial reuse of waste-derived materials. Therefore, it is necessary to amend the existing WDRs to include discharge requirements for all beneficial reuses of waste-derived materials.

20. This Order replaces Order No. R8-2014-0006, and amends the existing WDRs for the active landfills listed in Table 1 of this Order to include discharge, monitoring, and reporting requirements for:

    a. Disposal of nonhazardous contaminated soils, CRT panel glass, and designated waste as authorized by the EO of the Regional Board; and

    b. Beneficial reuse of contaminated soils and certain waste-derived materials, approved by the EO of the Regional Board, as interim cover, as well as other uses.

21. The Regional Board recognizes the benefits of recycling and reuse of waste-derived materials consistent with AB 939 and Title 27. This Order is not intended to, and does not, conflict with AB 939.

22. Pursuant to Title 27, §20690(b), all types of ADC use must be approved by the local enforcement agency (LEA) in writing to CalRecycle, prior to its use at MSW landfills. Proposed uses of ADC materials require site-specific demonstration to establish suitability as daily cover by the LEA and CalRecycle. However, site-specific demonstrations are not required by CalRecycle for the following materials used in compliance with Title 27, §20690:

    - Contaminated sediment (or soils), dredge spoils, foundry sands, energy resources exploration and production wastes.
    - Geosynthetic fabric or panel products (blankets);
    - Foam products;
    - Processed green material;
    - Sludge and sludge-derived materials;
    - Ash and cement kiln dust materials;
    - Treated auto shredder waste;
    - Compost materials;
    - Processed construction and demolition wastes and materials; and
    - Shredded tires.

23. Waste-derived materials that meet the requirements in Title 27, §20690 for use as ADC and other uses, some of which contain constituents that can be mobilized, may be subject to Sections F and G.1 of this Order for protection of water quality.

24. On April 1, 2014, the State Water Resources Control Board adopted Industrial General Permit (IGP), NPDES Order No. CAS000001, which superseded Order 97-03-DWQ, to regulate storm water discharges associated with industrial activities to waters of the State. Landfill operations are one of the categorical industrial activities required to comply with the IGP. The active landfill owners/operators are required to maintain compliance with applicable water quality standards specified for landfills in the IGP, and its revisions thereafter, for all activities, including the disposal and beneficial reuse of contaminated soils and certain waste-derived materials authorized under this Order.

25. These WDR amendments shall not be interpreted or applied in a manner that alters or supersedes any existing requirements, restrictions or working arrangements relating to cleanup cases regulated by any federal, state or local government agencies.

26. This Order does not authorize the discharge of waste in violation of applicable state or federal laws and regulations, including air quality laws, nor exempt any Dischargers from applicable regulations set forth by other regulatory agencies.

27. This Order is neither: intended to regulate the transport of contaminated soils to treatment facilities, the land-treatment of contaminated soils, or the discharge of soils to inert landfills; nor does it regulate the reuse of contaminated soils at site cleanup projects overseen by the Regional Board. These activities are regulated either by individual WDRs, cleanup and abatement orders, or other general WDRs adopted by the Regional Board.

28. The adoption of this amendment to active landfill WDRs for the disposal and reuse of contaminated soils and certain waste-derived materials would assist in:

    a. Protecting groundwater and surface waters of the State from pollution.
    b. Simplifying and expediting the process for disposal and reuse of contaminated soils and certain waste-derived materials at landfills.
    c. Reducing Regional Board staff time preparing individual WDRs or review of each request for approval of disposal or reuse of contaminated soils and certain waste-derived materials.
    d. Providing consistency for disposal and reuse of nonhazardous contaminated soils and certain waste-derived materials at active MSW landfills in the Santa Ana Region.

29. A Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) became effective on January 24, 1995. The Basin Plan and its subsequent amendments specify beneficial uses and water quality objectives for waters in the Santa Ana Region. The requirements specified in this Order are necessary to ensure water quality objectives are met and thereby protect beneficial uses.

30. Existing and potential beneficial uses of groundwater and surface waters within the Santa Ana Region are specified, by water body, in Table 3-1 of the Basin Plan. Groundwater and surface waters that do not have beneficial uses designated in Table 3-1 of the Basin Plan have the same beneficial uses as the streams, lakes or reservoirs to which they are tributary or the groundwater management zones to which they are tributary.

31. This Order establishes minimum standards for the acceptance of contaminated soils, CRT panel glass, and certain waste-derived materials for disposal or reuse at active landfills. In the event of an inconsistency between the provisions of this Order and the Basin Plan, the more protective water quality provision shall prevail.

32. This Order does not preempt or supersede the authority of municipalities, flood control agencies, or other federal, state or local agencies to prohibit, restrict, or control discharges of waste subject to their jurisdiction.

33. This amendment is to prescribe discharge requirements for the acceptance of contaminated soils, CRT panel glass, and certain waste-derived materials for disposal or reuse at the existing active MSW landfills within the Region. This action is likely to reduce the illegal disposal of contaminated soils within the Region, thereby protecting the environment. This

amendment applies only to existing MSW facilities, and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, §21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, §15301.

34. This Order is consistent with the Santa Ana Regional Board's goal to provide water resources protection, enhancement, and restoration, while balancing economic and environmental impacts as stated in the Strategic Plan of the State Water Resources Control Board and the Regional Boards, and in conformance with the Porter-Cologne Water Quality Control Act (CWC, §13000, et seq.).

35. The Regional Board has notified interested agencies, the active landfill owners and operators (hereinafter Dischargers listed in Table 1, below) and all currently known interested parties of its intent to adopt amended WDRs for the acceptance of contaminated soils, CRT panel glass, designated wastes, and certain waste-derived materials for disposal or reuse at active landfills.

36. This Order delegates authority to the EO of the Regional Board to require that the Dischargers revise the active MSW landfills' Waste Acceptance Programs (described in Section G, below) and/or the methods and procedures for monitoring, reporting, managing, accepting, reusing, and/or disposing of incinerator ash, contaminated soils, CRT panel glass, and/or waste-derived materials at the active landfills to address newly discovered or newly developed information and/or regulatory guidelines.

37. The Regional Board, in a public meeting, heard and considered all comments pertaining to the adoption of these amended WDRs for disposal or reuse of the contaminated soils at active MSW landfills.

IT IS HEREBY ORDERED that existing WDRs for the active MSW landfills in the Santa Ana Region (hereinafter Landfills) listed in Table 1, which are owned and operated by the Dischargers, be amended to include the following requirements to allow acceptance of contaminated soils, CRT panel glass, designated wastes, and certain waste-derived materials for disposal or reuse:

Table 1
Active MSW Landfills Covered by this Order

Landfill Name	Existing WDRs	Dischargers
Lamb Canyon Landfill	Order No. R8-2013-0003	Riverside County Department of Waste Resources
Badlands Landfill	Order No. 91-105 Order 98-99 Order No. R8-2006-0053 Order No. R8-2010-0051	Riverside County Department of Waste Resources
Frank R Bowerman Landfill	Order No. R8-2010-0017	Orange County Waste & Recycling
Olinda Alpha Landfill	Order No. R8-2010-0006	Orange County Waste & Recycling
Mid-Valley Landfill	Order No. 98-095 Order No. R8-2006-0040	San Bernardino County Department of Public Works
San Timoteo Landfill	Order No. 78-151 Order No. 98-99	San Bernardino County Department of Public Works
California Street Landfill	Order No. R8-2004-0008 Order No. R8-2008-0094	City of Redlands Quality of Life Department

A. APPLICABILITY

1. This Order sets forth requirements for acceptance of nonhazardous contaminated soils, CRT panel glass, designated wastes, and certain waste-derived materials for disposal or reuse at the Landfills.

2. The criteria for disposal and reuse of contaminated soils are established in Section C of this Order, and may vary for each Landfill based on the existing site environmental control systems (composite liners, leachate collection and removal system, etc.), landfilling operations (i.e. best management practices, BMPs), and hydrogeologic setting.

3. The criteria for acceptance of CRT panel glass disposal, designated waste disposal, and waste-derived material reuse are specified in Sections D, E and F of this Order, respectively.

B. DISCHARGE PROHIBITIONS

1. The disposal or reuse of contaminated soils and waste-derived materials at the Landfills, except in compliance with this Order, is prohibited.

2. The disposal or reuse of contaminated soils and waste-derived materials at the Landfills shall not cause an exceedance of the applicable waste discharge limitations in the IGP.

3. Contaminated soils and waste-derived materials that are deemed to be hazardous waste, as defined in Article 11, Title 22 of the CCR (Title 22), are prohibited for acceptance at the Landfills.

4. Designated waste, as defined in §13173 of CWC, shall not be permitted in unlined units of the Landfills.

5. Soils contaminated with used oil that do not meet the requirements of this Order are prohibited from disposal or reuse at the Landfills.

6. The disposal or reuse of contaminated soils and waste-derived materials at the Landfills shall not violate requirements set forth by other regulatory agencies.

7. The discharge of waste shall not:

    a. Cause groundwater or surface waters to exceed the water quality objectives and violate the prohibitions established in the Basin Plan or other applicable State Water Board Water Quality Control Plans, or to cause surface water to exceed applicable California Toxic Rule or National Toxic Rule water quality criteria;
    b. Cause pollution, contamination, or nuisance, or adversely affect beneficial uses of ground or surface waters, as established in the Basin Plan;
    c. Cause the occurrence of coliform or pathogenic organisms in groundwater;
    d. Cause the occurrence of objectionable tastes and odors in groundwater;
    e. Cause waters pumped from a groundwater basin to foam;
    f. Cause the presence of toxic materials in groundwater; or
    g. Cause the pH of groundwater to fall below 6.0, or rise above 9.0.

8. Odors, vectors, and other nuisances originating from the disposal or reuse of contaminated soils and other wastes beyond the limits of the Landfills are prohibited.

9. The discharge of contaminated soils, waste materials, or waste-derived materials to surface drainage courses is prohibited.

C. ACCEPTANCE CRITERIA FOR CONTAMINATED SOILS

1. **Waste Acceptance Program (WAP) for the Disposal or Reuse of Contaminated Soils** –The Discharger shall develop and implement a Waste Acceptance Program (WAP) for contaminated soils. The WAP shall be submitted for approval by the EO at least 90 days prior to accepting contaminated soils, and shall identify: personnel responsible for implementing the program; procedures for waste profiling, including load checking, waste sampling and testing for constituents of concern; site-specific waste acceptance thresholds; onsite waste handling and disposal procedures; and any other relevant technical information. The WAP for contaminated soils may be incorporated into the landfill-specific WAP that encompasses acceptance criteria for various types of waste materials.

2. **Unrestricted Onsite Use of Contaminated Soils**

   Non-hazardous contaminated soils that do not exceed the following threshold criteria may be disposed of or used onsite at any portion of the Landfills:

   a. For petroleum hydrocarbon contaminated soils, the threshold concentration is an average TPH concentration of 50 milligrams per kilogram (mg/kg) or less in the gasoline range (C_4-C_{12}), or an average concentration of 100 mg/kg or less in the diesel range (C_{13}-C_{22}), or an average concentration of 1000 mg/kg or less in the heavy oil range (C_{23+}). The TPH for full chain hydrocarbons (gasoline, diesel, and heavy oils) shall not exceed 1,000 mg/kg.

   b. Threshold concentration levels for constituents other than petroleum hydrocarbons are required to be profiled in order to comply with disposal requirements of this Order, and include:

      i. Soils with an average, contaminant-specific concentration that does not exceed a Regional Screening Level (RSLs)[12] for residential sites established by the U.S. Environmental Protection Agency (USEPA).

      ii. In the absence of RSL limits, soils with an average, contaminant-specific concentration that does not exceed an Environmental Screening Level (ESL)[13] for "Soil Tier 1" established by the San Francisco Bay Regional Board.

      iii. For soils for which a RSL or ESL has not been established, an average

[12] USEPA Region 9 RSL tables are located at: https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016. RSLs with target cancer risk (TR) of 1E-06 and target hazard quotients (THQ) of 1.0 should be used to establish threshold levels.
[13] San Francisco Bay Regional Board ESLs are located at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/ESL%20Workbook_ESLs_Interim%20Final_22Feb16_Rev3_PDF.pdf

contaminant-specific concentration shall not exceed, on a per weight basis[14] 10 times the maximum contaminant level (MCL) for drinking water, established by the USEPA or the State Water Board's Division of Drinking Water, whichever is more stringent.

iv. Soils with an average pH that does not exceed 9 or fall below 6, the established criteria for pH in the Basin Plan.

v. Soils with an average concentration that does not exceed 2,000 micromhos per centimeter (µmhos/cm), the established criteria for Specific Conductance in the Basin Plan.

c. Constituents that are naturally occurring in soils may exceed the threshold concentration levels provided in Section C.2.b (e.g. metals). Average concentrations shall be considered for these naturally occurring constituents in the Santa Ana Region. A demonstration must be made that they are naturally occurring, and that these levels will not result in exceedances of water quality standards in surface or groundwater surrounding the Landfill.

3. Criteria for Disposal of Contaminated Soils to Unlined Units of Landfills

Non-hazardous contaminated soils that do not exceed the following threshold criteria may be disposed of at unlined units of the Landfills:

a. Soils with an average concentration 500 mg/kg or less in the C_4-C_{12} carbon-chain range, or 5,000 mg/kg or less in the C_{13}-C_{22} carbon-chain range, or an average TPH concentration 50,000 mg/kg or less.

b. Soils with an average, contaminant-specific concentration that does not exceed a RSL for industrial sites established by the USEPA.

c. In the absence of RSL limits, soils with an average, contaminant-specific concentration that does not exceed an ESL for "Leaching to Groundwater" established by the San Francisco Bay Regional Board.

d. Soils contaminated with VOCs, SVOCs, organochlorine pesticides, PCBs, or CAM metals shall not be disposed of at unlined portions of the Landfills if the contaminant exceeds 100 times an established MCL, on a per-weight basis.

e. Soils with an average concentration that does not exceed 9 or fall below 6, the established criteria for pH in the Basin Plan.

f. Soils with an average concentration that does not exceed 2,000 µmhos/cm, the criteria established for Specific Conductance in the Basin Plan.

4. Criteria for Disposal of Contaminated Soils to Composite-Lined Units of Landfills

a. Non-hazardous soils contaminated with TPH, VOCs, SVOCs, organochlorine

[14] For example, soil results reported in mg/kg should be compared to an MCL in mg/L.

pesticides, PCBs, or CAM metals at concentrations exceeding criteria established for unlined landfills in Section C.3, above, but meeting the criteria listed below, may be disposed of at a lined unit of the Landfills:

i. Soils contaminated with an average concentration that does not exceed 1,000 mg/kg in the C_4-C_{12} carbon-chain range, or 10,000 mg/kg in the C_{13}-C_{22} carbon-chain range, or an average TPH concentration of 75,000 mg/kg.

ii. Soils contaminated with a PCB concentration less than 50 mg/kg, which has been established under 40 CFR §761.61(a)(5)(v)(A)(1).

iii. Soils with an average concentration that does not exceed 12 or falls below 2 for pH.

iv. Soils with an average concentration that exceeds 2,000 µmhos/cm.

b. A Discharger may develop landfill-specific waste acceptance criteria, consistent with *The Designated Level Methodology for Waste Classification and Cleanup Level Determination* or alternative methodology approved by the EO of the Regional Board. Factors to be considered in developing waste acceptance criteria include:

i. Water quality objectives – Consistent with the Basin Plan's municipal and domestic supply beneficial use for groundwater resources in the Santa Ana Region, the Discharger shall use the most stringent Basin Plan objectives as the water quality objective;

ii. Attenuation factor for pollutants of concern selected based on landfill-specific geology and hydrogeology and pollutant characteristics;

iii. A calculated leakage flow rate based on landfill-specific design criteria;

iv. A calculated groundwater flow rate based on landfill-specific hydrogeologic conditions;

v. Equilibrium partitioning of waste constituents between leachate and soils; and

vi. Equilibrium partitioning of waste constituents between leachate and groundwater with consideration for dilution attenuation.

5. Contaminated soil sampling frequencies are listed in Table 2 below:

Table 2
Sampling Frequency

Quantity (cubic yards, CYs) of Soil	No. of Samples
Less than 100[15]	2
101 to 500	4
501 to 2,500	6
For each 500 CYs greater than 2,500[16]	1 additional sample

[15] For quantities less than 20 CYs, sampling is not required.
[16] For quantities greater than 20,000 CYs, an alternative sampling frequency may be considered.

D. ACCEPTANCE CRITERIA FOR DISPOSAL OF CRT PANEL GLASS

1. Within 90 days prior to accepting CRT panel glass for disposal at a composite-lined unit of a Landfill, the Discharger shall develop and submit a CRT panel glass WAP, which establishes acceptance and disposal criteria in compliance with §66273.81 [article 8, chapter 23, division 4.5, Title 22, CCR] for approval by the EO of the Regional Board. The CRT panel glass WAP may be incorporated into the landfill-specific WAP that encompasses waste acceptance criteria for various types of waste materials.

2. The Discharger shall accept, manage, and dispose of CRT panel glass in accordance with the approved CRT panel glass WAP.

E. ACCEPTANCE CRITERIA FOR DISPOSAL OF DESIGNATED WASTES

1. Acceptance of designated wastes for disposal at the Landfills shall be evaluated and approved by the EO of the Regional Board on a case-by-case basis. A designated waste that meets the following criteria may be authorized by the EO of the Regional Board for disposal at a composite-lined unit of a Landfill:

   a. The waste has been granted a variance by the DTSC for disposal at a composite-lined unit of the Landfill, and the Discharger has developed procedures for acceptance, management, and disposal of the waste; or

   b. The waste shall not release soluble pollutants in concentrations exceeding applicable water quality objectives in groundwater.

2. To satisfy the requirement of Section E.1.a, above, the Discharger shall provide satisfactory documentation, establishing necessary acceptance, management and disposal procedures, for disposal of the proposed designated waste.

3. To satisfy the requirement of Section E.1.b, above, the Discharger shall provide satisfactory documentation, demonstrating compliance with acceptance criteria specified in Section C.4 of this Order [Title 27, §20200(a)(1)].

F. ACCEPTANCE CRITERIA FOR BENEFICIAL REUSE OF CERTAIN WASTE-DERIVED MATERIALS

1. Beneficial reuse of waste-derived materials, other than contaminated soils, at the Landfills shall be evaluated and approved by the EO of the Regional Board on a case-by-case basis.

2. Waste-derived materials[17] accepted at the Landfills for onsite beneficial reuse shall meet the following minimum requirements:

[17] Waste-derived materials are waste materials, including CalRecycle's list of approved ADC materials in Title 27, §20690(a), that have been processed, treated, or otherwise re-conditioned so that the material may be beneficially reused for structural, engineering, or other alternative purposes. Some of these waste-derived materials include, but not limited to, tire-derived aggregates, compost, processed green material, crushed asphalt concrete.

a. For interim cover (daily and intermediate cover) use - The performance goal is to minimize percolation of liquids through waste, required under Title 27, §20705(b).

b. Water quality protection requirements, required by Title 27, §20705(e) - Except for reusable materials (such as covers) that are never incorporated into the landfill, waste-derived materials shall only consist of these:

i. Match landfill classification – materials which meet the classification criteria for wastes that can be discharged to that landfill. Therefore, a material that would be classified as a designated waste cannot be utilized for daily or intermediate cover at a Class III landfill or other reuse unless that material is approved for discharge (as a waste) to that landfill pursuant to Title 27, §20200(a)(1) or is authorized under this Order; and

ii. Composition – materials whose constituents (other than water) and foreseeable breakdown byproducts, under the chemical (including biochemical) and temperature conditions which it is likely to encounter within the landfill, either:

(a) for non-composite lined portions of the landfill, are mobilizable only at concentrations which would not adversely affect beneficial uses of waters of the State, in the event of a release; or

(b) for composite-lined portions of the landfill, are listed as constituents of concern in the landfill's water quality protection standard, created pursuant to Title 27, §20395.

3. To satisfy the requirement of Section F.2, above, the Discharger shall complete either of the following:

a. Perform a field demonstration, if deemed necessary, with the proposed material for use as an alternative cover to satisfy Section F.2.a, above, and submit a description and evaluation of performance for review and approval by the EO of the Regional Board.

b. Provide satisfactory documentation and justification supporting use of the proposed material as an alternative cover or other beneficial use for review and approval by the EO of the Regional Board.

G. PROVISIONS

1. The Dischargers shall ensure that waste constituents are not mobilized from any contaminated soils and waste-derived materials that are used onsite as part of environmental control systems at concentrations which would adversely affect beneficial uses of waters of the State. All surface runoff and erosion control systems shall be managed consistent with the requirements specified in the State's IGP, Order No. NPDES Order No. CAS000001, and any subsequent revisions thereto. The Dischargers shall review their Landfill's Storm Water Pollution Prevention Plan (SWPPP) to determine the need for any revisions specifically to address contaminants in the wastes accepted under this Order, and any foreseeable breakdown products of the waste constituents. Any required revisions to the SWPPP must be completed 30 days prior to

acceptance of any wastes under this Order.

2. The SWPPP shall include, but not be limited to:

   a. Procedures for limiting the use of contaminated soils and other waste or waste-derived materials during periods of wet weather so that the contribution of waste constituents and foreseeable breakdown byproducts to surface water runoff is minimized.

   b. Drainage diversion structures to control surface water run-on and run-off to limit interaction with wastes exposed in landfill working areas.

   c. Containment basins to isolate wastewater (i.e. storm water commingled with MSW and leachate) to minimize pollutant discharges in the storm water runoff.

   d. Drainage retention facilities to capture or control surface waters, to minimize off-site discharges of pollutants.

   e. Any revisions to the existing storm water monitoring list to address potential releases of contaminants resulting from the disposal and reuse of contaminated soils and wastes.

3. Provisions in this Order supersede those in any landfill-specific or individual waste discharge requirements issued by the Regional Board that relates to contaminated soil disposal and reuse and designated waste discharge requirements.

4. The Executive Officer is hereby authorized to require, based upon newly discovered or newly developed information and/or regulatory guidelines, that the Discharger revise the WAP and/or the methods and procedures for monitoring, reporting, accepting, managing, reusing, and/or disposing of the materials listed below at the Landfills:

   a. Incinerator Ash;

   b. Contaminated Soils;

   c. CRT Panel Glass; and

   d. Waste-Derived Materials.

5. This Order hereby rescinds Order No. R8-2014-0006, and amends the existing site-specific waste discharge requirements for active Landfills listed in Table 1 of this Order.

H. REPORTING REQUIREMENTS

1. In accordance with regulations in §3890 et seq. of Title 23, and of Title 27, adopted by the State Water Board in September 2004 regarding electronic submittal of information (ESI), the Dischargers shall submit all monitoring reports required under this Order or site-specific WDRs, electronically to the State Water Board GeoTracker system. The Dischargers are subject to any future revision to ESI requirements.

2. The Dischargers shall include all activities related to disposal and reuse of contaminated soils and waste-derived materials accepted under this Order in the corresponding annual summary reports, submitted pursuant to the monitoring and reporting program in accordance with the site-specific WDRs for the corresponding Landfill. The report shall include a summary of the types, volumes, and disposal or onsite reuse for all waste and waste-derived materials accepted pursuant to requirements of this Order. The report shall also compile all waste profiling information utilized by the Dischargers in accordance with the WAP requirements, including a description of all sampling, the date of sampling, places where samples were collected, and time of sampling or measurement; individual(s) responsible for the sampling or measurement; the date(s) analyses were done; analytical techniques or methods used to profile contaminated soils or wastes; and the analytical results.

3. The Dischargers shall furnish, within a reasonable time, any information which the EO of the Regional Board may require, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating coverage under this Order.

4. Where a Discharger becomes aware of a failure to submit any relevant facts in a report to the Regional Board, the Discharger shall promptly submit such facts or information.

5. The Dischargers shall report any noncompliance with this Order. Any such information shall be provided by electronic mail within 24 hours from the time the Dischargers become aware of the circumstances. A written submission shall also be provided within seven (7) days of the time the Dischargers become 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 EO of the Regional Board may waive or modify the written report requirement on a case-by-case basis if the oral report has been received within 24 hours.

6. All applications, reports, or information required by the EO of the Regional Board shall be signed and certified as follows:

    a. Signing agent:

        i. For a corporation - by a principal executive officer of at least the level of vice-president.
        ii. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
        iii. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
        iv. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.

    b. All other reports required by this Order and other information required by the EO of the Regional Board shall be signed by a person designated in part (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

        i. The authorization is made in writing by a person described in part (a) of this

provision;

ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and

iii. The written authorization is submitted to the EO of 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, 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."

I. NOTIFICATIONS

1. The CWC provides that any person who violates any WDRs issued, reissued, or amended by the Regional Board is subject to administrative civil liability in accordance with CWC §13350 and/or §13385 of up to $10,000 per day of violation or $10 per gallon discharged depending on the nature of the violation.

2. CWC §13268 provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and may be subject to administrative civil liability of up to $1,000 per day of violation.

3. The disposal and reuse of contaminated soils and waste-derived materials may also be subject to regulations of CalRecycle, the DTSC and the South Coast Air Quality Management District.

4. The Regional Board may reopen this Order at its discretion, including assuring consistency with the Basin Plan, Title 27 regulations, State Water Board's General Industrial Storm Water Permit, and revisions thereto, and any other regulatory programs that may affect waste acceptance criteria specified in this Order.

I, Kurt V. Berchtold, 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, Santa Ana Region, on October 28, 2016.

Kurt V. Berchtold
Executive Officer