

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL
BOARD SAN FRANCISCO BAY REGION**

ORDER NO. R2-2020-0023, amending Orders R2-2008-0027, R2-2011-0037, R2 2017-0003, R2-2018-0011, R2-2005-0020, R2-2018-0049, R2-2011-0032, R2-2009-0053, and R2-2008-0074

AMENDMENTS TO WASTE DISCHARGE REQUIREMENTS FOR DISPOSAL AND ONSITE USE OF NON-DESIGNATED / NON-HAZARDOUS CONTAMINATED SOILS AND RELATED WASTES AT ACTIVE MUNICIPAL SOLID WASTE LANDFILLS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereafter Regional Water Board), finds that:

1. Regulations governing nonhazardous solid waste landfills and the discharge of nonhazardous solid wastes to land are contained in the California Code of Regulations, Title 27, Division 2, Subdivision 1, Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Title 27).
2. Pursuant to Title 27 §20200(a), wastes are classified based on an assessment of the potential risk of water quality degradation associated with each category of waste. Waste classifications include the following:
 - a. Nonhazardous municipal solid wastes (MSW) are classified as Class III wastes and can be disposed at a Class III landfill. Nonhazardous wastes are described in Finding 3 of this Order.
 - b. Designated wastes are classified as Class II wastes and may be disposed of at Class I or Class II landfills. Designated wastes are described in Findings 4. There is only one Class II landfill in the San Francisco Bay region; however, some Class III landfills within the region have specific disposal cells that have been designed and constructed to meet the Title 27 requirements for disposal of Class II wastes (see Table 1).
 - 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). There are no operating Class I landfills in the San Francisco Bay region.
3. Nonhazardous solid waste is defined in Title 27 §20220(a) as "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 wastes 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)."
4. Pursuant to CWC §13173, designated waste is defined as:
 - a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to § 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.

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 accepted for disposal at a composite-lined unit of a Class III landfill, if such disposal is authorized by the site-specific waste discharge requirements (WDRs).

Applicability

5. The active (operating) MSW landfills in the San Francisco Bay region are regulated under individual, site-specific WDRs that establish requirements for the acceptance and disposal of nonhazardous solid wastes. This Order amends the individual WDRs for active MSW landfills listed in Table 1.

Table 1. Active MSW Landfills within the San Francisco Bay Region[#]

Landfill	Location (County)	Current WDRs	Classification
Clover Flat Landfill	Napa	R2-2008-0027	Class III
Guadalupe Landfill	Santa Clara	R2-2011-0037	Class III
Keller Canyon Landfill	Contra Costa	R2-2017-0003	Class II
Kirby Canyon Landfill	Santa Clara	R2-2018-0011	Class III*
Newby Island Landfill	Santa Clara	R2-2005-0020	Class III*
Ox Mountain Landfill	San Mateo	R2-2018-0049	Class III*
Potrero Hills Landfill	Solano	R2-2011-0032	Class III*
Redwood Landfill	Marin	R2-2009-0053	Class III
Vasco Road Landfill	Alameda	R2-2008-0074	Class III*

*The WDRs for the Kirby Canyon, Ox Mountain, Potrero Hills, and Vasco Road landfills authorize the disposal of Class II (designated) wastes in certain composite-lined cells that have been constructed to meet the Title 27 §20250 requirements for disposal of Class II wastes. The Newby Island landfill is authorized, under waste acceptance criteria approved by Water Board in 2013, to accept Class II wastes in certain composite-lined cells.

[#]The Acme Landfill in Martinez and the Zanker Materials Processing Facility in San Jose are active landfills; however, these landfills do not accept municipal solid waste. They accept only inert construction and demolition debris. This Order does not apply to the Acme Landfill nor the Zanker Materials Processing Facility and does not authorize either facility to accept contaminated soils.

The Keller Canyon Landfill is the only active landfill in the San Francisco Bay region that is, in its entirety, classified as a Class II disposal facility. However, some of the operating Class III landfills (specifically Potrero Hills, Kirby Canyon, Vasco Road, Ox Mountain, and Newby Island) contain specific disposal cells that have been designed and constructed to meet the requirements specified in Title 27 §20250 for disposal of Class II (designated) wastes. The individual WDRs for the Potrero Hills, Kirby Canyon, Vasco Road and Ox Mountain authorize disposal of Class II wastes in specific cells. This Order does not change the classification of any landfill in the Region and does not authorize any other Class III landfills to accept Class II wastes. This Order does not alter the waste acceptance criteria for specific disposal cells that have been previously authorized by the Regional Water Board to receive Class II wastes, as these cells are already authorized to accept contaminated soils that are not classified as hazardous (Class I) wastes.

Purpose of This Amendment

6. The individual WDRs listed in Table 1 generally do not include specific requirements covering the disposal or onsite use of contaminated soils and related wastes. Routinely, landfill operators implement “load-checking programs” to limit unacceptable wastes from being accepted and disposed. However, due to the nature of contaminated soils, waste constituents in the soils cannot readily be detected through load-checking programs. Thus, routine load-checking programs are not adequate to regulate the discharge of contaminated soils. This Order amends these individual WDRs to better regulate the disposal or onsite use of contaminated soils and related wastes.

In addition, each year, landfills regulated by the Regional Water Board receive a large number of requests to accept contaminated soils for disposal. For each request, the discharger (i.e., landfill operator) must determine the concentration of the significant constituents of concern in the waste, the regulatory limits, if any exist, for these constituents, and the potential impact to waters of the State from the disposal of the waste. Regional Water Board staff are often asked to concur with soil acceptance decisions, which vary from landfill to landfill depending upon site-specific factors and conditions. Staff anticipate such requests to continue and to impact the capacity of Regional Water Board staff to review and update the WDRs for each facility in a timely manner. These circumstances create the need for a uniform methodology for processing the numerous requests for the disposal of these moderately contaminated soils and related wastes without compromising water quality.

7. Adoption of this Order would:
 - a. Set forth the requirements for disposal and onsite use of contaminated soils at MSW landfills by establishing waste acceptance criteria and uniform procedures for assessing the threat to water quality associated with soil disposal;
 - b. Protect groundwater and surface waters of the State from pollution that could be caused by improper placement or discharge of contaminated soils and other materials that meet the requirements for use as alternative daily cover (see Findings 10-12 and 15-16 below);
 - c. Specify monitoring and reporting requirements for groundwater and stormwater that account for the types of contaminants typically present in contaminated soils and related wastes; and
 - d. Reduce the amount of time spent by the Regional Water Board updating individual WDRs to address issues related to the disposal of contaminated soils and related wastes.

Contaminated Soils

8. Contaminated soils can be either nonhazardous, hazardous, or designated solid wastes, depending upon the concentrations of toxic or harmful chemical contaminants contained therein. For the purposes of this Order, the term "contaminated soils" means soils that contain chemical contaminants such as total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), and California Assessment Manual (CAM) metals that are below threshold values that would cause the soil to be classified as hazardous (Class I) or designated (Class II) waste. Soils contaminated with low to moderate concentrations of such contaminants are wastes in California Water Code (CWC) §13050 and are required to be regulated under waste discharge requirements pursuant to CWC §13263(a). The discharge of such wastes to land has the potential to affect the

quality of the waters of the State if not properly managed. This Order sets forth requirements to ensure that discharge of such wastes to land does not affect the quality of waters of the state.

9. Disposal of contaminated soils in properly engineered and managed MSW (Class III) landfills is an efficient and economical means of controlling the effects of such discharge of waste, thereby eliminating or reducing threats to water of the State.

Cover Materials

10. Increasingly, the generators of contaminated soils or landfill operators request Water Board approval to use contaminated soils and related wastes for beneficial purposes, such as alternative daily cover materials, rather than disposing of these materials as waste.
11. Cover material is defined in Title 27 §20164 to mean soils/earthen materials or alternative materials used to cover compacted solid wastes in a disposal site. Cover material may serve as daily, intermediate, or final cover. Alternative daily cover means cover material other than at least six inches of earthen material, placed on the surface of the active face at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.
12. Pursuant to Title 27 §20686, beneficial use of solid wastes at MSW landfills shall include, but not be limited to, the following: alternative daily cover, alternative intermediate cover, final cover foundation layer, liner operations layer, construction fill, road base, wet weather operations pads and access roads, and soil amendments for erosion control and landscaping. This Order establishes uniform criteria for the various reuses of materials at the active landfills within the Region.
13. Title 27 §20705(e) establishes water quality protection requirements for cover materials at MSW landfills as follows:

Except for reusable covers (such as tarps) that do not get buried with waste in the landfill, daily and intermediate cover materials shall:

- a. Meet the classification criteria for wastes that can be discharged to that landfill. For example, any material that would be classified as a Class II designated waste cannot be utilized for daily or intermediate cover at an MSW landfill unless that landfill's WDRs specifically allow disposal of Class II designated wastes; and
 - b. Contain chemical constituents and foreseeable breakdown byproducts that, under the chemical and temperature conditions which it is likely to encounter within the landfill, would be mobilized at concentrations that, if released from the landfill, would not adversely affect beneficial uses of receiving waters (for disposal units lacking composite base liners); or
 - c. Contain chemical constituents and foreseeable breakdown products that are listed as constituents of concern (COCs) in the landfills water quality protection standard (for disposal units with composite base liners).
14. Soils that are accepted as waste materials and used at a landfill for construction of the final cover foundation layer must meet the criteria established for disposal in unlined cells in Section C.3 below.

Related Wastes

15. The alternative daily cover materials listed in Finding 16 below, as well as any other wastes that meet requirements in Title 27 §20690(b) for use as alternative daily cover material, constitute the “related wastes” subject to the requirements in this Order.
16. Pursuant to Title 27 §20690(b), all types of alternative daily cover must be approved by the local enforcement agency (LEA) prior to use at MSW landfills as consistent with Title 27 §21570 through §21686. Proposed uses of alternative daily cover materials potentially require site-specific demonstration projects approved by the LEA with concurrence by CalRecycle to establish suitability as daily cover. However, site-specific demonstration projects are not required for the following materials used as specified and in accordance with Title 27 §20690(a):
 - Non-hazardous, non-designated contaminated sediment (or soils), dredge spoils, foundry sands, energy resource 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
 - shredded tires, and
 - spray-applied cementitious products.
17. The Regional Water Board recognizes the benefits of recycling and reuse of waste materials consistent with Assembly Bill (AB) 939, which mandated a reduction of waste being disposed. This Order is intended to streamline and standardize approval of the beneficial reuse of contaminated soils and related wastes and will help landfills fulfil the objectives of AB 939.
18. On April 1, 2014, the State Water Resources Control Board adopted Order No. 2014-0057-DWQ, also known as the Industrial General Permit (IGP), which superseded Order No. 97-03-DWQ to regulate stormwater 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, as amended, for all activities, including the disposal and beneficial use of contaminated soils and certain waste-derived materials authorized under this Order.
19. Landfill disposal and onsite use of contaminated soils and related wastes can result in additional sediment or mobilized wastes released into surface water bodies if not properly managed. Sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) in water bodies by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange. In addition, sediment particles can transport other wastes that are attached to them, including nutrients, metals, and petroleum hydrocarbons. Sediment particles such as silts and clays are the primary components of turbidity, TSS, and suspended sediment concentration water quality analytical parameters. Sediment and other wastes, if present in higher than normal concentrations, can be toxic

to marine biota and humans.

20. This Order shall not be applied or interpreted in a manner that alters or supersedes any existing restrictions or requirements relating to cleanup cases regulated by any federal, state or local governmental agencies.
21. This Order applies only to the identified MSW landfills specified in Table 1 and does not regulate the transport of contaminated soils to treatment facilities, land-treatment of contaminated soils, or the discharge of uncontaminated soils to inert waste landfills. Nor does it regulate the placement and use of contaminated soils at non-landfill site cleanup projects overseen by the Regional Water Board. These activities are regulated either by individual WDRs, cleanup and abatement orders, or other general orders adopted by the Regional Water Board.
22. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board (State Water Board), U.S. EPA, and the Office of Administrative Law, where required.
23. Section 13263(e) of the CWC provides that the Regional Water Board shall periodically review WDRs. The Regional Water Board has reviewed the existing WDRs for those active landfills in Table 1 and finds that amending them through this Order to address the disposal and on-site use of non-hazardous and non-designated contaminated soil and related wastes is appropriate.
24. This Order is a permitting action involving existing landfill facilities involving no expansion of use beyond what is already authorized in individual WDRs. It amends these WDRs to set forth criteria that apply to the discharge and beneficial reuse of certain soil and related wastes to assure protection of water quality consistent with Title 27. It does not allow the discharge of a larger volume or different wastes at landfills beyond what is already allowed under existing individual WDRs for each of the landfills. This Order is, therefore, exempt from the provisions of the California Environmental Quality Act in accordance with title 14, California Code of Regulations, § 15301.
25. Nothing in this Order authorizes the discharge of waste in violation of applicable state or federal laws and regulations, including air quality laws, nor exempt any dischargers from applicable air quality laws or regulations.
26. The Regional Water Board has notified interested parties of its intent to amend the WDRs for those active landfills identified in Table 1 above.
27. The Regional Board, in a public meeting, heard and considered all comments pertaining to the disposal of contaminated soils and related wastes at all active MSW landfills in the Region.

IT IS HEREBY ORDERED that Regional Water Board Orders R2-2008-0027, R2-2011-0037, R2-2017-0003, R2-2018-0011, R2-2005-0020, R2-2018-0049, R2-2011-0032, R2-2009-0053, and R2-2008-0074 are amended to require the named dischargers therein (hereinafter, Discharger or Dischargers) to comply with the following requirements:

A. APPLICABILITY

1. This Order pertains to the disposal and onsite use of non-designated / nonhazardous contaminated soils and related wastes at the active MSW landfills listed in Table 1.
2. Contaminated soil concentration limits are established in Section C of this Order and may vary for each landfill cited in this Order, based on site-specific criteria, including:
 - a) the design and construction of existing environmental control systems (composite liners, leachate collection and removal systems, etc.);
 - b) landfilling operations and stormwater management practices; and
 - c) the hydrogeologic setting and the vulnerability of waters of the State (including groundwater) that might be impacted by releases from the facility.
3. Landfills subject to this Order that accept contaminated soils or related waste materials (as defined in Findings 15-16 of this Order) for disposal or onsite uses shall be subject to the requirements of the facility's stormwater monitoring program described in Section D of this Order.

B. PROHIBITIONS

1. The disposal of contaminated soils or onsite use of contaminated soils or related wastes except in compliance with this Order is prohibited.
2. Contaminated soils or related wastes that are determined to be hazardous wastes, as defined in title 22, California Code of Regulations, §66261.3, shall not be discharged at any MSW landfill in the Region.
3. Contaminated soils or related wastes that are determined to be designated wastes, as defined in CWC § 13173, shall not be discharged at the landfills listed in Table 1 unless the site-specific individual WDRs for that facility authorize the disposal of Class II designated wastes.
4. Soils with contaminants present in concentrations that exceed the levels for unrestricted onsite reuse established in Section C.2 of this Order shall not be used or disposed onsite outside of the boundaries of a designated disposal cell.
5. The disposal or reuse of contaminated soils or related wastes at landfills listed in Table 1 shall not violate requirements set forth by other regulatory agencies with jurisdiction over waste disposal activities.
6. The discharge of waste shall not:
 - a. Cause ground waters or surface waters to exceed the water quality objectives as established in the Basin Plan or other applicable water quality control plans, or cause surface waters 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;
 - c. Cause the occurrence of coliform or pathogenic organisms in waters pumped from a groundwater basin;
 - d. Cause the occurrence of objectionable tastes and odors in waters pumped from a

- groundwater basin;
 - 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 waters pumped from a groundwater basin to fall below 6.0 or exceed 9.0.
7. The discharge of contaminated soils or related wastes to surface drainage courses is prohibited.

C. WASTE ACCEPTANCE CRITERIA FOR CONTAMINATED SOILS

1. **Waste Acceptance Program (WAP) for Disposal or Use of Contaminated Soils:**

The Discharger shall develop and implement a Waste Acceptance Program (WAP) for disposal or use of contaminated soils in disposal cells that are not designed, constructed, and authorized to receive Class II wastes. The WAP shall be submitted for approval by the Regional Water Board Executive Officer 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 the complete range of waste materials accepted at the landfill. If a landfill has an existing WAP for contaminated soils, the landfill shall continue to comply with that WAP on an interim basis, not to exceed 120 days from the adoption of this Order, until an updated WAP complying with this Order is submitted and approved by the Executive Officer.

The criteria below shall be used to evaluate contaminated soils for disposal or onsite reuse under the applicable scenario listed below.

2. **Criteria for 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 a landfill, lined or unlined, provided placement is within the Facility's Permitted Waste Boundary and any runoff that has contacted the contaminated soils is captured by the facility's stormwater management system:

- 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 (C₄-C₁₂), or an average concentration of 100 mg/kg or less in the diesel range (C₁₃-C₂₄), or an average concentration of 1000 mg/kg or less in the heavy oil range (C₂₄₊). 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 (RSL)¹ for residential sites established by the U.S. Environmental Protection Agency (USEPA).

¹ 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.

- ii. In the absence of RSL limits, soils with an average, contaminant-specific concentration that does not exceed an Environmental Screening Level (ESL)² for “Soil Tier 1” compiled by the San Francisco Bay Regional Water Quality Control Board.
- iii. For soils for which a RSL or ESL has not been established, an average contaminant-specific concentration shall not exceed, on a per weight basis 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.

Concentrations of constituents that are present naturally in soils (e.g., metals) may exceed the threshold concentration levels provided in Section C.2.b. Average concentrations shall be considered for these naturally occurring constituents within the San Francisco Bay region. A demonstration must be made that the constituents of concern are naturally occurring, and that these levels will not result in exceedances of water quality standards in surface or groundwater in the vicinity of the landfill.

3. Criteria for Disposal of Contaminated Soils to **Unlined Disposal Cells**:

Non-hazardous contaminated soils that do not exceed the following threshold criteria may be disposed in unlined cells of a landfill:

- a. Soils with an average TPH concentration of 1,000 mg/kg or less in the C₄-C₁₂ carbon-chain range, or an average TPH concentration of 2,300 mg/kg or less in the C₁₂-C₂₄ carbon-chain range, or an average TPH concentration 5,100 mg/kg or less in the C₂₄-C₃₆ or greater carbon-chain range.
- b. Soils with an average, contaminant-specific concentration that does not exceed the applicable 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 the applicable 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 a landfill if the contaminant exceeds 100 times an established MCL, on a per-weight basis.

4. Criteria for Disposal of Contaminated Soils to **Composite-Lined Disposal Cells**:

The landfills listed in Table 1 (Finding 5) can dispose of contaminated soils, as defined in Finding 8 of this Order, in any disposal cell that has a composite base liner constructed in

² San Francisco Bay Regional Board ESL documents can be requested by contacting the ESL team at ESLs.ESLs@waterboards.ca.gov. The ESL webpage indicates the versions/dates of the various ESL documents: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html

compliance with Title 40, Code of Federal Regulations, subtitle D and Title 27 requirements. This includes:

- i. Soils or related wastes with an average pH that is not greater than 12 or less than 2, and
- ii. Soils or related wastes that contain chemical contaminants such as total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), and California Assessment Manual (CAM) metals in concentrations that would not cause the soil to be classified as hazardous (Class I) or designated (Class II) waste.

In addition, Class II landfills or landfills whose individual WDRs authorize the acceptance of Class II (designated) wastes in specific disposal cells, can accept, for disposal in composite-lined cells, soils and related wastes that have characteristics that would cause them to be classified as designated (Class II) waste. This Order does not change the classification of any landfill in the Region and does not authorize any other Class III landfills to accept Class II wastes.

5. **Optional Evaluation Method:**

A Discharger has the option to develop landfill-specific waste acceptance criteria in lieu of using RSLs and ESLs under Section C.2, provided the evaluation methodology is approved by the Executive Officer of the Regional Water Board and considers the following factors:

- i. Water quality objectives – Consistent with the Basin Plan’s municipal and domestic supply beneficial use for groundwater resources in the San Francisco Bay region, the Discharger shall use as the water quality objective the most stringent Basin Plan objectives geographically applicable for the landfill setting;
 - ii. An appropriate attenuation factor for constituents of concern selected based on site-specific geology, hydrogeology, and pollutant characteristics;
 - iii. A calculated leakage flow rate based on the design criteria for the specific landfill;
 - iv. A calculated groundwater flow rate based on site-specific hydrogeologic conditions and an assessment of the vulnerability of any Waters of the State that could be impacted by a release from the landfill;
 - 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.
6. Contaminated soil sampling frequencies are listed in Table 2 below. Characterization of soils can be performed either by the generator of the soil, by the receiving landfill, or both, provided representative sampling is performed at the frequencies prescribed below, or in accordance with an alternative sampling method approved in advance by the Executive Officer, with approval to be based on whether the alternative method will yield comparable and representative soil profiling.

Table 2: Sampling Frequency

Quantity (cubic yards, CYs) of Soil	No. of Samples
Less than 100 ³	2
101 to 500	4
501 to 2,500	6
For each 500 CYs greater than 2,500 ⁴	1 additional sample

D. STORMWATER MANAGEMENT

1. Dischargers who accept contaminated soils, as defined in Findings 8 - 9 of this Order, or related wastes as described in Findings 15 - 16 of the Order, for onsite disposal or use shall continue to comply with all requirements of the Industrial General Permit (State Water Resources Control Board Order No. 2014-0057-DWQ, or IGP) and any subsequent amendments and revisions. The Dischargers shall ensure that waste constituents are not mobilized from any contaminated soils 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 controls systems shall be consistent with the requirements specified in the IGP and any subsequent amendments and revisions.
2. Each Discharger shall review its Stormwater Pollution Prevention Plan (SWPPP) to determine the need for any revisions specifically to address contaminants that may be present in the wastes accepted under this Order. Any required revisions to the SWPPP must be completed at least 30 days prior to the acceptance of any wastes under this Order. The revised SWPPP shall include:
 - a. Procedures for limiting the use of contaminated soils and other related wastes 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. Identification of any minimum and advanced best management practices (BMPs) in the IGP necessary to reduce or prevent discharges of pollutants in its stormwater discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

E. REPORTING REQUIREMENTS

1. In accordance with regulations in § 3890 et seq. of 23 CCR, adopted by the State Water Board in September 2004 regarding electronic submittal of information (ESI), dischargers shall submit all monitoring reports required under these, or site- specific, WDRs electronically to the State Water Board GeoTracker system. Dischargers are subject to any future revision to ESI requirements.
2. Dischargers shall report all Program related activities in corresponding quarterly or semiannual monitoring reports, pursuant to the monitoring and reporting program in site-specific WDRs for the corresponding landfill. The report shall include a summary of the types, volumes, and

disposal or onsite use for all wastes accepted pursuant to requirements of this Order. Approved waste profiles utilized by the Discharger to implement Program requirements during the reporting period shall be maintained on-site or electronically, and shall be made available for Regional Water Board review upon request.

3. Dischargers shall submit all surface water test results in corresponding quarterly or semiannual monitoring reports pursuant to the monitoring and reporting program in site-specific WDRs for the corresponding landfill. Routine submittal of the surface water test results does not release Dischargers from summary annual reporting requirements of the general industrial stormwater permit. Dischargers shall submit a summary of all benchmark exceedances.
4. Dischargers shall furnish, within a reasonable time, any information which the Executive Officer may require to determine whether cause exists for modifying, revoking and reissuing, or terminating enrollment under this Order.
5. 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.
6. Dischargers shall report any noncompliance of this Order. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within seven days of the time the Discharger 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 Executive Officer may waive or modify the written report requirement on a case-by-case basis if the oral report has been received within 24 hours.
7. All applications, reports, or information required by the Executive Officer 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 Executive Officer 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. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and

- ii. The written authorization is submitted to the Executive Officer.
- 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.”

Dischargers shall submit reports required under this Order and other information requested by the Executive Officer, in electronic form to the GeoTracker database located at <https://geotracker.waterboards.ca.gov>.

In addition to the required electronic submittal of reports, paper reports can be mailed to:

California Regional Water Quality Control Board San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

F. NOTIFICATIONS

1. The CWC provides that any person who violates any WDRs issued, reissued, or amended by this Regional Board is subject to administrative civil liability in accordance with CWC § 13350 of up to \$5,000 per day of violation, depending upon 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 of contaminated soils or related wastes may also be subject to regulations of CalRecycle, the California Department of Toxic Substances Control, the Bay Area Air Quality Management District, or the LEAs for the counties present within this Region.
4. The Regional Board may reopen this Order at its discretion, including to assure consistency with the State Water Board’s general industrial stormwater permit, and revisions thereto.

I, Michael Montgomery, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 8, 2020.

Michael Montgomery
Executive Officer