CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING PRIMA DESHECHA ZONE 4 LANDFILL ORANGE COUNTY

Orange County Waste and Recycling, as described below, is subject to the waste discharge requirements (WDRs) set forth in this Order No. R9-2025-0006, *Waste Discharge Requirements For Orange County Waste And Recycling Prima Deshecha Zone 4 Landfill Orange County* (Order).

Table 1. Discharger Information

Discharger	Orange County Waste and Recycling
Name of Facility	Prima Deshecha Zone 4 Landfill (Landfill)
Facility Address	32250 Avenida La Pata, San Juan Capistrano, California

Table 2. Discharge Locations

Discharge Point	Discharge Description	Discharge Point (Latitude)	Discharge Point (Longitude)	Receiving Hydrologic Area
Landfill	Non-hazardous municipal solid wastes	33.49514	-117.60671	San Clemente Hydrologic Area

Effective Date
This Order was adopted by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and is effective on February 12, 2025.

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the San Diego Water Board on February 12, 2025.

David W. Gibson

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David W. Gibson, Executive Officer

TABLE OF CONTENTS

A. FINDINGS

1. **Facility Description**. The Prima Deshecha Landfill complex consists of 1,530 acres divided into five zones. Zone 1 and Zone 4 are designated for waste disposal operations (**Figure 1**). The remaining three zones are designated as open space, trails, or for infrastructure such as Avenida La Pata, maintenance roads, and offices.

2. **Waste Discharge Requirements.** This Order establishes the requirements for the design, construction, maintenance, and monitoring of a 409-acre waste management unit within the Landfill (**Figure 2**). The Landfill will increase the total waste disposal footprint of the Prima Deshecha Landfill complex to approximately 680 acres. The Information Sheet (**Attachment B**) provides additional site-specific information pertinent to the development of the Order and Monitoring and Reporting Program (MRP) including geology, hydrology, containment systems design, and site operation.

3. **Responsibilities of the Discharger.** The Discharger is responsible for the disposal and management of non-hazardous, municipal solid wastes for Orange County. The Discharger is also responsible for designing and constructing waste containment systems, including lined waste management units (WMUs), leachate collection and removal systems, and environmental monitoring systems to ensure that wastes accepted for disposal at the Landfill are compatible with the containment systems used to permanently contain wastes and their degradation products. The containment of wastes and byproducts will prevent adverse impacts to groundwater and surface water quality and protect human health.

4. **Development of Zone 4.** The Discharger intends to develop the Landfill in a series of nine phased, lateral expansions as follows: Phase A – 64 acres; Phase B – 50 acres; Phase C – 89 acres; Phase D – 63 acres; Phase E – 21 acres; Phase F – 46 acres; Phase G – 18 acres; Phase H – 27 acres; Phase I – 12 acres. The acreage associated with each lateral expansion may be modified over time to accommodate changing site conditions or operational needs which may require an amendment to this Order.

   The proposed development of the Landfill includes lateral expansions that will incorporate the waste footprint of Waste Management Unit 2 (WMU2). WMU2 is a closed, pre-title 27 landfill that accepted waste from 1973-1980 and has an unlined waste footprint of 26.42 acres. WMU2 is regulated by the San Diego Water Board under Order No. R9-2012-0001, *General Waste Discharge Requirements for the Maintenance and Monitoring of Closed, Abandoned, or Inactive Nonhazardous Solid Waste Units Within the San Diego Region* (General Order). The Discharger acknowledges that a request for termination of enrollment for WMU2 under the

General Order[1] must be submitted to the San Diego Water Board concurrently with the design package for the lateral expansion of the Landfill that will impact WMU2. Upon termination of enrollment in the General Order, WMU2 will be regulated as part of the Landfill and under this Order. Additional information on WMU2 and the requirements for incorporation into the Landfill are provided in the Information Sheet (**Attachment B**).

5. **Legal Authority.** This Order is issued pursuant to the Porter-Cologne Water Quality Control Act (Water Code), commencing with section 13000, and implements (1) the Federal Resource Conservation and Recovery Act (RCRA), including regulation found in the Code of Federal Regulations (CFR), title 40, part 258 (40 CFR part 258), adopted by the U.S. Environmental Protection Agency (USEPA) implementing requirements of RCRA subtitle D; (2) regulations and policies adopted by the State Water Resources Control Board (State Water Board) in titles 23 and 27 of the California Code of Regulations (CCR), and (3) applicable provisions of the California Health and Safety Code, Division 20, chapter 6.5 (Hazardous Waste Control). The MRP (**Attachment A**) is issued pursuant to Water Code section 13267, which authorizes the San Diego Water Board to require the Discharger to furnish technical and monitoring program reports.

6. **Water Quality Control Plan.** The *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. This Order implements the Basin Plan by prescribing waste discharge requirements for the design and construction of containment structures, the disposal of wastes, maintenance, and monitoring of the Landfill. These requirements ensure that wastes contained within the Landfill will not impair the beneficial uses of surface water and groundwater or result in violations of water quality objectives.

7. **California Environmental Quality Act.** Issuance of this Order and the MRP by the San Diego Water Board is a project under the California Environmental Quality Act (CEQA). The Orange County Board of Supervisors, pursuant to the requirements of CEQA, certified a final Environmental Impact Report (EIR) for the Prima Deshecha Landfill complex general development plan on November 6, 2001, and a supplemental EIR for the construction of the Landfill on January 25, 2022. Detailed findings regarding compliance with CEQA are set forth in the Information Sheet (**Attachment B**).

8. **Antidegradation Policy.** The San Diego Water Board has considered the State Water Board's Resolution No. 68-16, *Statement of Policy with Respect to*

[1] Or any version of the General Order adopted by the San Diego Water Board or State Water Board in the future that supersedes Order R9-2012-0001.

Maintaining High Quality Waters in California, (Resolution No. 68-16) in adopting this Order. The Order requires the Discharger to design, construct, and maintain waste containment systems that prevent discharges of waste and waste constituents to waters of the State. As explained in the Information Sheet, this Order is consistent with Resolution No. 68-16 because it requires the Discharger to manage waste and implement waste disposal practices to prevent degradation of groundwater and surface water, and to minimize odors and prohibit nuisance conditions.

9. **Rationale for Requirements.** The San Diego Water Board developed the requirements for this Order based on information submitted as part of the Final Joint Technical Document[2] (JTD), groundwater monitoring reports, water quality control plans and policies, and other available information. The Information Sheet (**Attachment B**) contains the background information and rationale for the requirements of this Order. The Information Sheet is incorporated into and constitutes the findings for this Order.

10. **Financial Assurances.** The Discharger provided proof of financial assurances to cover costs associated with closure, post-closure maintenance and monitoring, and corrective actions at the Landfill in accordance with CCR title 27 sections 22207, 22212, and 22222: an escrow account for closure activities; a pledge of revenue for post-closure maintenance and monitoring activities; and an escrow agreement for corrective actions. CCR title 27, section 22236 further requires the Discharger to recalculate and update financial assurances annually, as needed, to account for inflation. Additional details regarding the requirements for financial assurances are included in the Information Sheet (**Attachment B**).

11. **Delegation of Authority.** The San Diego Water Board, by prior resolution, has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order unless such delegation is unlawful under Water Code section 13223 or as otherwise explicitly stated in this Order. The San Diego Water Board's delegated authority to the Executive Officer include modifications or revisions to the MRP. Any proposed modifications or revisions to the WDRs are not part of the delegated authority and must be made through adoption by the Board.

12. **Notification of Interested Persons.** The San Diego Water Board has notified the Discharger, local agencies, and all interested persons known to the San Diego Water Board of its intent to prescribe WDRs and an MRP for the Landfill and

[2] *Joint Technical Document, Prima Deshecha Landfill, County of Orange, California: June 2011; Amended November 2018 and May 2023*; submitted to the San Diego Water Board on June 16, 2023.

provided an opportunity to submit written comments for consideration. The San Diego Water Board also provided an opportunity for the Discharger and interested parties to submit oral comments and recommendations at a public hearing. Notification details are included in **Section T – Public Participation**, of the Information Sheet (**Attachment B**).

13. **Consideration of Public Comments.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to this Order and the MRP. Public hearing details are included in **Section T – Public Participation**, of the Information Sheet (**Attachment B**).

14. **Severability.** The provisions of this Order are severable. If any provision of this Order, or the application of any provision of this Order to any circumstance is held invalid, the application of that provision to other circumstances and the remainder of this Order will not be affected thereby.

15. **Effective Date.** This Order becomes effective on the date of adoption by the San Diego Water Board.

IT IS HEREBY ORDERED that this Order is effective upon the date of adoption. To meet the provisions contained in division 7 of the Water Code, commencing with section 13000, and the appliable regulations, it is further ordered that the Discharger comply with following:

B. PROHIBITIONS

1. The Discharger must prohibit the following discharges to, or from the Landfill:

    a. Wastes which have a potential to reduce or impair the integrity of containment structures or, if comingled with other wastes could produce adverse reactions, heat or pressure, fire or explosions, toxic byproducts, or reaction products that require a higher level of containment than provided by the Landfill.

    b. Treated or untreated solid or liquid waste to waters of the State or United States, except as authorized by WDRs or a National Pollution Discharge Elimination System (NPDES) permit issued by the San Diego Water Board.

    c. Dewatering-derived effluent, except as authorized by the San Diego Water Board.

    d. Dewatered sludge waste classified as hazardous waste by the California Department of Toxic Substances Control (DTSC) or sludge waste that does not meet the discharge specifications in **Attachment C** of this Order, including primary and secondary sludge wastes, except as authorized by the San Diego Water Board.

e. Dredged sediments containing free liquids or having a liquid ratio that exceeds the moisture-holding capacity of the nonhazardous solid wastes (See **Attachment C, section D**).

f. Universal wastes including batteries; mercury-containing lamps, thermostats and thermometers; electronic devices; electrical switches and relays; pilot light sensors; mercury gauges; and non-empty aerosol cans.

g. Designated wastes except as provided for by CCR title 27, section 20200(a)(1).

h. Hazardous wastes, as defined in CCR title 22, section 66261.3, must be managed according to CCR title 22, division 4.5.

i. Liquids or semi-solid wastes, except as authorized by the San Diego Water Board.

j. Wastes intended for diversion to ancillary operations including anaerobic digestion, chip and griding, composting, or materials recycling, except as authorized by the San Diego Water Board.

k. Decommissioned materials and residual radioactive materials from decommissioned sites as prescribed in Executive Order No. D-62-02[3] and Cleanup and Abatement Order No. R9-2002-0330.[4]

2. The following types of discharges from the Landfill are prohibited:

a. Waste to water of the State in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in Water Code section 13050.

b. Waste to land, except as authorized by this Order or the terms described in Water Code section 13264.

c. Waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives or as authorized by the San Diego Water Board.

[3] Executive Order No. D-62-02, issued by the Governor on September 30, 2002.
[4] Cleanup and Abatement Order No. R9-2002-0330, Moratorium on the Disposal of Decommissioned Materials to Class III and Unclassified Waste Management Units, adopted by the San Diego Water Board on October 11, 2002.

d. Waste to waters of the State or adjacent to waters of the State in a manner which may permit the waste to be transported into and/or by the water, except as authorized by the San Diego Water Board.

e. Waste, including leachate, landfill gas condensate,[5] and/or stormwater flows that have come into contact with waste to stormwater conveyance systems, except as authorized by the San Diego Water Board.

f. Waste into a natural or excavated site below historic groundwater elevations, except as authorized by the San Diego Water Board.

C. PERMITS

1. The Discharger must obtain additional permits for construction and operation of the Landfill, including, but not limited to, the following:

   a. *Solid Waste Facility Permit,* issued by the County of Orange Health Care Agency, Environmental Health Division, Solid Waste Local Enforcement Agency (LEA).

   b. *Title V Facility Permit to Operate*, issued by the South Coast Air Quality Management District.

   c. *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order WQ 2022-0057-DWQ, NPDES No. CAS000002* (CGP), issued by the State Water Board.

2. The Discharger obtained the following permits for the development of the Prima Deshecha Landfill complex. Any permits listed and not issued by the San Diego Water Board or California State Water Board are included for informational purposes only:

   a. *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ and Order WQ 2018-0028- DWQ, NPDES No. CAS000001 (IGP)*, issued by the State Water Board. The Prima Deshecha Landfill complex is currently enrolled in the IGP under Waste Discharge Identification number (WDID) 9 30I005260, therefore the Discharger is not required to obtain a separate enrollment for Zone 4. The San Diego Water Board last certified the Discharger's enrollment in the IGP

[5] As defined in CCR title 27, section 20164, landfill gas condensate refers to liquids which are removed from a gas control system at a landfill, produced by the condensation of landfill gas within the conveyance system.

on August 24, 2017. The Discharger must submit a Change of Information (COI) to revise the Notice of Intent (NOI) for IGP enrollment, in order to incorporate the new Landfill footprint prior to starting waste disposal activities.

b. Clean Water Act Section 401 Water Quality Certification R9-2020-0031, issued by the San Diego Water Board on March 16, 2020.

c. Clean Water Act Section 404 Permit SPL-2016-00168-ERS, issued by the U.S. Army Corps of Engineers on January 20, 2021.

d. Biological Opinion Nos. 1-6-02-F-703 and 1-6-07-F-812.8, and Minor Amendment to Southern Orange County Subregion Habitat Conservation Plan to thread-leaved brodiaea impacts issued by United State Fish and Wildlife Service (USFWS) on February 8, 2002, January 10, 2007, and September 28, 2012, respectively.

e. Consistency Determination with USFWS Opinion No. 1-6-02-F-703; Incidental Take Permit No. 2081-2011-074-05; and Streambed Alteration Agreement 1600-2016-0102-R5, issued by the California Department of Fish and Wildlife on March 1, 2002, August 8, 2012, and November 24, 2020, respectively. Incidental Take Permit No. 2081-2011-074-05 expired on December 31, 2018, and was amended to extend the expiration date to one year later on December 31, 2019.

D. CLEARING, GRUBBING, AND SOIL EXCAVATION

These specifications apply to the initial construction and all future lateral expansions approved by the San Diego Water Board. In addition, the Discharger must obtain coverage under the CGP for stormwater discharges from any clearing, grubbing, and/or soil excavation activities that will result in a land disturbance of one or more acres, in accordance with **Permits C.1.c** above. The Discharger must comply with the clearing, grubbing, soil excavation and soil stockpile specifications listed below to prepare the Landfill footprint for construction of containment structures, stormwater management features, and monitoring systems.

1. **Clearing and Grubbing.**

a. Remove and dispose of all unwanted surface materials including trees, brush, grass, weeds, downed trees, boulders, rocks, and any other materials that would impede the development of the Landfill.

b. Remove and dispose of all unwanted vegetative material from beneath the ground surface including stumps, roots, buried logs, boulders, rocks and any other materials that would impede the development of the Landfill.

c. Designate areas outside the active clearing and grubbing areas to stockpile vegetative materials, soil, boulders, and rocks.

d. Install best management practices (BMPs) around stockpiled materials as specified in the stormwater pollution prevention plan (SWPPP) submitted in compliance with the CGP.

e. Stockpile stream vegetation waste for less than 24-hours.[6]

f. Replace and restore native conditions for any clearing and grubbing beyond the limits of each construction area.

2. **Soil Excavation.**

a. Conduct soil excavation activities in accordance with the technical specifications contained in the JTD and/or design report.

b. Conduct soil excavation activities in a manner that does not interfere with waste disposal or other ancillary operations at the Landfill.

3. **Soil Stockpiling**.

a. Conduct soil stockpiling activities in accordance with the Discharger's technical specifications contained in the JTD and/or design report.

b. Ensure soil stockpiles derived from the development of the Landfill are within the areas designated in the JTD and/or design report.

c. Ensure soil stockpiles are stable and will not adversely impact the Landfill's containment structures due to failure during a seismic event, or from rapid loading of soils into the stockpile.

d. Implement appropriate BMPs and drainage management measures for stockpiled soils to direct stormwater around the stockpiles and into the stormwater conveyance system and prevent sediment run-off from the stockpiles from entering the stormwater conveyance system.

E. BLASTING

These specifications apply to the initial construction and all future lateral expansions as approved by the San Diego Water Board. In addition, the Discharger must obtain

[6] As stated in *Technical Specifications for the Prima Zone 4 Phase A Mass Excavation and Liner Project*, Special Provision 2.0, Section 3.2, dated May 2023, and submitted by OCWR in the Prima Deshecha Zone 4 Phase A Technical Documents approved by the San Diego Water Board on May 19, 2023.

coverage under the CGP for stormwater discharges from any blasting activities that will result in a land disturbance of one or more acres, in accordance with **Permits C.1.c** above. The Discharger must comply with the blasting and material management specifications listed below to prepare the Landfill footprint for construction of containment structures, stormwater management features, and monitoring systems.

1. **Blasting and Materials Management Plan**.

    a. Submit a *Blasting and Materials Management Plan* to the San Diego Water Board for Staff review and concurrence ***at least 60 days*** prior to initiating any blasting activities during construction. Blasting activities include bedrock removal and subgrade preparation activities. The *Blasting and Materials Management Plan* must include a map of the blasting area showing the location of blasting activities and proximity to containment structures, a description of the types of charges proposed for use, the proposed frequency of blasting activities, a management plan for the materials removed by blasting, a description of dust suppressing measures, and a list and diagram of BMPs the Discharger proposes for use around material stockpiles. The Discharger must receive written concurrence from San Diego Water Board staff prior to implementing the *Blasting and Materials Management Plan*.

    b. Implement blasting activities in accordance with the approved *Blasting and Materials Management Plan*.

    c. Submit an updated *Blasting and Materials Management Plan* to the San Diego Water Board for any remaining blasting activities beyond one year of the Board's approval of the *Blasting and Materials Management Plan*. The Discharger must submit the updated Blasting and Materials Management Plan to San Diego Water Board staff for review and concurrence at least ***30 days*** prior to the elapse of one year from Staff approval of the expiring *Blasting and Materials Management Plan*.

    d. Implement BMPs around blasted material stockpile areas and individual stockpiles to prevent sediment run-off into surface waters and construction and operational areas. The SWPPP for the Landfill should include a description of the blasted material storage areas, stockpiles, and BMPs the Discharger will use to prevent run-off.

2. **Management of Blasted Materials**.

    a. Store and manage blasted material onsite at designated areas in a manner that promotes stability of the stockpiles, underlying soil formations, and adjacent construction and operational areas.

b. Visually inspect the stockpiles following seismic events and storm events with a cumulative rainfall of one inch or greater over a 72-hour period. Submit the results of each inspection in a written report to the San Diego Water Board within ***seven days*** of the event. The Discharger may submit a written request to the San Diego Water Board Executive Officer for an extension to submit the results of the inspection report should the site be inaccessible or severely damaged following the seismic or storm event. As an alternative to providing a separate report, The Discharger may include the stockpile inspection report as an attachment to the Post-Rain Inspection Report or Post-Seismic Event Inspection Report required by **Reporting Requirements K.7 and K.8** of this Order.

c. If the Discharger discovers damage to the stockpile or storage areas during an inspection, submit an Emergency Response Work Plan in accordance with **Reporting Requirement K.11** of this Order.

3. **Blasting Slope Stability and Seismic Monitoring Workplan**.

a. Submit a *Blasting Slope Stability and Seismic Monitoring Workplan* to the San Diego Water Board at least ***90 days*** prior to initiating blasting activities for review and concurrence by San Diego Water Board staff. The *Blasting Slope Stability and Seismic Monitoring Workplan* must include an inspection schedule, a description of the instruments proposed for use in monitoring slope stability and seismic displacement during blasting activities, and a map that contains the following minimum information:

i. Proposed monitoring locations;

ii. Proposed stockpile locations;

iii. Known seismic hazards;

iv. Containment structures; and

v. Monitoring systems.

b. Conduct slope stability monitoring throughout the Landfill during blasting activities to demonstrate stability of all constructed areas, landslide deposit areas, and to prevent failure of containment structures, material stockpiles, and reactivation of landslides located within the Landfill footprint. The results of slope stability monitoring must be submitted monthly during blasting activities.

F. LANDFILL CONSTRUCTION STANDARDS AND SPECIFICATIONS.

These specifications below apply to the initial construction and all future lateral and vertical expansions within the footprint of the Landfill approved by the San Diego Water Board. The Discharger must comply with the following specifications for the design and construction of containment structures.

1. **Construction General Permit for Stormwater.** Obtain coverage under the CGP[7] for any construction activity described in this Order or its attachments, which results in a land disturbance of one or more acres in accordance with **Permits C.1.c** above. These types of construction projects at the Landfill may include clearing and grubbing, blasting, excavation, grading, waste and ancillary containment system construction, maintenance or access road construction, or lateral expansions of the Landfill, as proposed in the JTD.

2. **Precipitation and Drainage Controls.** Design and construct the precipitation and drainage control system to, at a minimum, accommodate peak flows from surface water run-off from a 24-hour storm event, with a 100-year return frequency in accordance with CCR title 27, section 20260(c), and Table 4.1.[8] The Discharger must use the most recent evaluation of the recurrence interval and severity of a "100-year, 24-hour" storm event to develop the design of the precipitation and drainage control system. All diversion and drainage facilities must be designed, constructed, and maintained to meet the required performance standards of CCR title 27, section 20365(c), and consider the following:

    a. The expected final contours for closed portions of the Landfill, including the planned drainage pattern.

    b. The drainage pattern for operating portions of the Landfill at any given time.

    c. The possible effects of the Landfill's drainage pattern on the regional watershed, and the possible effects of the regional watershed's drainage patterns on the Landfill.

    d. The design capacity of the drainage systems of downstream and adjacent properties by providing for the gradual release of retained stormwater downstream in a manner that does not exceed the expected peak flow rate at the point of discharge as if the Landfill were not constructed.

    e. The effects of storm events on construction and expansion projects occurring through the rainy season. These effects may include ponding in construction

[7] CGP, Section II.A *Traditional Construction Activities Subject to this General Permit*.
[8] Table 4.1 "Construction Standards for Units" found in CCR title 27.

and expansion areas, flooding of the leachate collection and removal system, sediment accumulation in construction areas, erosion, and exposure of waste.

3. **Detention and Desiltation Basins.** Apply the following minimum to all basins constructed to manage stormwater run-on and run-off at the Landfill.

    a. Detention basins used to contain stormwater run-off must be designed and constructed in accordance with the findings and design criteria provided in the JTD and any hydrology studies contained therein, or in an update included in a design report for each new expansion area of the Landfill as approved by the San Diego Water Board. At a minimum, basins must be designed to contain peak stormwater flows associated with a 100-year, 24-hour storm event, as defined by the most recent evaluation of the recurrence interval and severity of a 100-year, 24-hour storm event.

    b. Detention and desiltation basins must be designed and sited to minimize impacts and risks to containment structures. Basins must be concrete-lined and not sited upslope or immediately adjacent to containment structures, due to the potential for any structural failure of the basins to damage the containment systems and/or lead to stormwater infiltration into the waste prism.

4. **Containment Systems.** Apply the following minimum criteria to all new and lateral expansions of the Landfill to ensure compliance with applicable State and federal regulations for containment structures.

    a. Containment systems must be designed according to the prescriptive standards set forth in CCR title 27, section 20330, unless an engineered alternative is proposed in accordance with CCR title 27, section 20080(b) and approved by the San Diego Water Board.

    b. Engineered alternative containment system designs must include a demonstration that the proposed design will offer equivalent protection of water quality and meets the performance standards of a prescriptive liner system. The Discharger must submit the proposed engineered alternative containment system design and demonstration to the San Diego Water Board staff for review and approval prior to implementation, which may require an amendment to the Order.

    c. Deviations from the approved design and construction standards must be justified in writing, and accompanied by a demonstration that the deviations align with industry standards, will offer equivalent protection of water quality, and meet the performance standards of the approved design and construction standards. The Discharger must submit the justification and supporting

documentation to the San Diego Water Board staff for review and approval prior to implementing any deviations to the project, which may require an amendment to the Order.

d. Materials used in the construction containment structures must have appropriate physical and chemical properties to ensure the containment of discharged wastes over the life of the Landfill, including the post-closure maintenance period.

5. **Foundation.** Apply the following minimum criteria to the foundation to ensure the integrity of overlying containment structures:

   a. The foundation must be capable of providing support for the overlying containment structures and capable of withstanding hydraulic pressure gradients to prevent failure or settlement, compression or uplift, and all effects of ground motions resulting from the Maximum Credible Earthquake (MCE); as certified by either a California licensed civil engineer or a certified engineering geologist in accordance with CCR title 27, section 20420(d).

   b. The foundation must be rolled to a smooth and level surface. The surface of the subgrade must be free of stones greater than three inches in diameter, organics, and other deleterious materials.

6. **Vertical Separation.** Construct liner systems to ensure a minimum vertical separation of five feet from the highest anticipated groundwater elevation in accordance with CCR title 27, section 20240(c).

7. **Subdrain System.** Construct the subdrain system across the entire base liner system to prevent groundwater from interacting with the base liner system components. The subdrain system may be comprised of a pervasive gravel layer, a geocomposite, or an engineered alternative as allowed by CCR title 27, section 20080(b) and approved by the San Diego Water Board.

8. **General Liner System Design**. Apply the following minimum general design specifications and procedures to all liner system designs:

   a. Ensure that the approved liner system covers all native geologic materials that are likely to be in contact with waste, including landfill gas or leachate, in accordance with CCR title 27, section 20330(d).

   b. Construct a test pad in accordance with CCR title 27, section 20324(g) to ensure that earthen materials proposed for use in the low permeability layer meet the approved liner design specifications and construction standards.

c. Ensure that the geomembrane is installed with direct and uniform contact with the low permeability soil, in accordance with the design criteria in 40 CFR part 258.40(b).

d. Ensure that the junction(s) between the base liner components and the side slope liner components at the base of the slopes, the junction between the side slope liner components and the anchor trenches/tie-downs at the top of the slopes, and the junctions between adjacent panels of synthetic line materials are constructed in a manner that do not:

i. Allow the migration and release of wastes, waste constituents, or degradation products.

ii. Cause, threaten to cause, or contribute to adverse impacts on the Landfill's ability to contain waste constituents; the integrity and performance of the Landfill's foundation, liner system, or the structures which control leachate, storm water drainage, erosion, or gas.

e. Ensure geomembranes used in the liner system meet the following minimum performance requirements and are:

i. Designed and constructed to contain the liquids, including landfill gas condensate and leachate, and landfill gas produced by the degradation of wastes as required by CCR title 27, sections 20420 and 20310, and limit infiltration of liquid to the greatest extent possible.

ii. Able to control landfill gas emissions.

iii. Stable under the range of stresses and ambient environmental conditions at the site.

iv. Capable of containing waste and waste byproducts throughout the operational life of the landfill and the post-closure maintenance period.

9. **Site-Specific Liner System Designs.** The site-specific liner system designs must meet the performance standards and requirements set forth in CCR title 27, sections 20330 and 21750. The Discharger has proposed the following site-specific liner system designs for construction at the Landfill:

a. **Base Liner Design**. The base liner design will consist of the following components (from bottom to top) if the hydraulic conductivity of the underlying soils is less than 1×10^{-7} cm/sec:

i. A prepared foundation.

ii. A subdrain system consisting of a geocomposite layer and a series of 6-inch perforated high density polyethylene (HDPE) subdrain header pipes wrapped in an 8-ounce nonwoven geotextile.

iii. A minimum 12-inch thick layer of low-permeability soil with a hydraulic conductivity less than or equal to 1 x 10^{-7} cm/sec.

iv. An 80-mil HDPE geomembrane textured on both sides.

v. A 12-ounce nonwoven cushion geotextile layer.

vi. A minimum 9-inch thick leachate collection and removal system (LCRS) gravel layer with a dendritic array of header collection pipes.

vii. An 8-ounce nonwoven filter geotextile layer.

viii. A minimum 27-inch thick protective cover soil (PCS) layer.

If the hydraulic conductivity is greater than 1 x 10^{-7} cm/sec, the Discharger must construct the alternative base liner design required in **section F.9.b** of this Order.

b. **Alternative Base Liner Design**. The alternative base liner system will be comprised of the following components (from bottom to top) if the hydraulic conductivity of the underlying soils is greater than or equal to 1 x 10^{-7} cm/sec:

i. A prepared foundation.

ii. A subdrain system consisting of a geocomposite layer and a series of 6-inch perforated HDPE subdrain header pipes wrapped in an 8-ounce nonwoven geotextile.

iii. A minimum 24-inch thick layer of low-permeability soil with a hydraulic conductivity less than or equal to 1 x 10^{-7} cm/sec.

iv. An 80-mil high density polyethylene geomembrane textured on both sides.

v. A 16-ounce nonwoven cushion geotextile layer.

vi. A minimum 9-inch thick LCRS gravel layer with a dendritic array of collection pipes.

vii. An 8-ounce nonwoven filter geotextile layer.

viii. A minimum 27-inch thick PCS layer.

c. **Slide Slope Liner Design.** The side slope liner design will consist of the following components (from bottom to top):

i. A prepared foundation.

ii. A subdrain system consisting of a geocomposite drainage layer and piping, where required.

iii. A minimum 24-inch thick layer of low-permeability soil with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.

iv. An 80-mil single-sided textured geomembrane with textured side down.

v. A 16-ounce nonwoven cushion geotextile layer.

vi. A system of gravel drains along the benches.

vii. A minimum 36-inch thick PCS layer.

10. **Liner Materials Conformance Testing.** Perform conformance testing on all the synthetic materials used in the liner system of all future expansion areas prior to the start of construction. The results of conformance testing of synthetic materials must include the following evaluation:

a. If the material strength parameters measured during conformance testing are less than the strength parameters used in the design and slope stability analysis, the Discharger must postpone construction activities and re-run the slope stability analysis using the measured strength parameters from the conformance testing. The revised slope stability analysis(es), including all tabulated revised strength parameters, must be provided to the San Diego Water Board in a Revised Slope Stability and design report for review and comment prior to the commencement of any further construction activities.

b. If the material strength parameters measured during conformance testing are greater than or equal to the strength parameters used in the design and slope stability analysis for the expansion area, then the synthetic materials are deemed to be consistent with the value of the strength parameters used in the design and slope stability analysis, and no further analyses or reporting is warranted.

11. **Protective Cover Soil.** The PCS must meet the following minimum requirements:

a. Provide protection to the underlying liner components during initial waste placement into the lined expansion area and allow the percolation of leachate and storm water precipitation into the underlying LCRS. The PCS must

prevent the build-up of hydraulic head on top of this layer in accordance with CCR title 27, section 20340(c) and prevent the discharge of leachate or storm water in the form of a seep on exposed faces or into unlined areas of the Landfill.

b. Contain soils that are free of waste, contaminants, debris, roots, scrap material, asphalt, concrete, vegetation, untreated refuse, and other deleterious or objectionable materials.

c. Contain soil material that are considered suitable for use as follows:

i. For use with a 16-ounce per square yard geotextile, the PCS must have a minimum laboratory permeability of 2×10^{-3} centimeters per section (cm/sec) or greater.

ii. For use with a geocomposite, the PCS must have an average laboratory permeability of 1×10^{-4} cm/sec or greater.

iii. For an equivalent engineered alternative design, the PCS must have a minimum laboratory permeability greater than a barrier layer (1×10^{-5} cm/sec) as defined in 40 CFR part 258.60. Engineered alternative designs must be approved by the San Diego Water Board prior to construction.

d. Contain soils that are free of asphalt, concrete, limestone, or other material that could adversely react with the landfill leachate.

12. **Leachate Collection and Removal System.** The Construct and design the LCRS in accordance with the requirements found in CCR title 27, section 20340. Additionally, the LCRS must function in a manner that is consistent with the following minimum requirements:

a. The construction of containment systems in waste management unit areas must include a liner and LCRS that will effectively convey all leachate generated by the degradation of waste to a lined sump, lined collection area, or holding tank.

b. The materials used to construct the LCRS must have appropriate physical and chemical properties to ensure the required transmission of leachate over the operational life of the Landfill and throughout the post-closure maintenance period.

c. The LCRS gravel must be overlain by a minimum 8-ounce per square yard non-woven geotextile fabric layer to prevent clogging of the LCRS by the PCS.

d. The LCRS must be designed, constructed, and maintained to collect twice the anticipated daily volume of leachate generated by the Landfill, and ensure there is no build-up of hydraulic head on the underlying liner system in accordance with CCR title 27, section 20340(c).

e. The LCRS must be designed to keep the depth of fluid in any sump at or below six inches, the minimum depth needed to ensure efficient pump operation.

f. The LCRS must function without clogging throughout the life of the Landfill, including the post-closure maintenance period. The Discharger will perform annual testing of the LCRS to demonstrate proper operation. Results of the annual testing must be compared with earlier tests made under comparable conditions in accordance with CCR title 27, section 20340(d). This information must be included in the Annual Summary Report for the Landfill.

g. The LCRS must function in a manner that leachate production does not exceed 85-percent of the design capacity. If leachate generation exceeds 85-percent of the capacity of the LCRS, then the Discharger must ***immediately*** cease the discharge of sludge, dredged sediment, and any other high moisture wastes to the Landfill and report the increased leachate generation the San Diego Water Board in accordance with **Reporting Requirement K.9.f** of this Order.

h. The leachate collected in sumps or tanks may be discharged only to appropriate on-site or off-site liquid waste management facilities in compliance with all applicable federal, State, and local requirements.

i. The volume of leachate collected monthly must be reported and the quantities provided in each semi-annual groundwater monitoring report in compliance with CCR title 27, section 20340(h). Leachate collection data must be reported in tabular format and any increasing or decreasing trend in the volumes of leachate generated during the semi-annual reporting period noted in the report.

13. **Construction Quality Assurance and Quality Control.** Implement the following minimum measures to ensure that the construction quality assurance and quality control requirements found in State[9] and federal[10] regulations are achieved:

    a. Develop and submit a design report, which includes a technical analysis and demonstration that the proposed liner design can be constructed and remain stable and functional on the interior cut slopes, interim slopes, and final

[9] CCR title 27, sections 20320, 20324, 20330, 20340, 20365, 20370.
[10] 40 CFR, part 258.40 *et seq.* (Subtitle D).

slopes of the Landfill. The design report must also demonstrate that the materials proposed for use in the liner system are compatible with anticipated waste streams.

b. Employ a CQA Officer independent of both the Discharger and the construction contractor, who is technically qualified to perform construction quality assurance monitoring and testing during construction activities. The third party CQA Officer will be responsible for certifying that the containment system was constructed in accordance with approved design and all applicable plan and engineering specifications.

   CCR title 27, section 20324(b)(2) and the California Business and Professionals Code, sections 6735 and 7835 require the signature of appropriately licensed professionals when submitting technical or monitoring reports to the San Diego Water Board. Daily field reports monitor containment system construction activities including clearing, grading, subgrade preparation, deployment of earthen and synthetic containment system components, field sampling and testing of materials, and ensures that containment systems are constructed in accordance with the design approved by the San Diego Water Board. These activities, as described in the approved CQA and design reports, must be detailed in daily field reports signed by the CQA Officer (**Reporting Requirement K.3**).

c. Design and construct Landfill containment structures under the direct supervision of a California licensed civil engineer or a certified engineering geologist in accordance with CCR title 27, sections 20324(b)(1) and 20310(e), and certified by that individual as meeting the design and construction standards prescribed in the applicable State and federal regulations and implemented by this Order. All design documents must include a Construction Quality Assurance Plan (CQA Plan) for the purpose of:

   i. Providing a demonstration that the proposed containment system meets the regulatory and performance standards prescribed by CCR title 27, sections 20330 and 20340.

   ii. Prescribing quality controls for the materials and practices used to construct the containment systems, and to prevent the use of inferior products and/or materials that do not meet the regulatory standards.

   iii. Outlining the role and responsibilities of the CQA Officer, Construction Manager, sub-contractors, and any other personnel participating in the construction of the containment system.

d. Select soils for use in containment systems that have hydraulic conductivities appropriate for the proposed use of the soils. Hydraulic conductivities must be determined through laboratory analysis in accordance with CCR title 27, section 20320 and confirmed using applicable field-testing methods in accordance with CCR title 27, section 20324 *et seq.* The results of these analyses must be provided to the San Diego Water Board in the final CQA Report, prior to the placement of waste in the newly constructed area.

e. Perform an electrical leak location survey (ELLS) on any geomembrane installed during construction of liner systems for each cell and/or lateral expansion phase. The ELLS must be performed after placement of the LCRS gravel and prior to the deployment of subsequent liner components. The purpose of the ELLS is to check the integrity of the base and slope liner areas covered by a geosynthetic membrane component. Should the ELLS detect integrity issues with the geomembrane, or if repairs must be made to the geomembrane due to damage or defects, the Discharger must:

   i. Take all necessary steps to identify and repair any defects located in the geosynthetic membrane component and run the ELLS test again.

   ii. Provide the results of the ELLS survey and any subsequent repairs to the geosynthetic membrane component in the relevant CQA Report. The results must include a text discussion of field activities, the daily logs for any needed defect repairs, the results from subsequent testing performed to assess the integrity of repairs made to the geosynthetic membrane, supporting photographs of all defects and subsequent repairs, and a separate site plot plan indicating the location(s) of all defects and repairs performed for each geosynthetic membrane component. If the liner system contains more than one geosynthetic membrane component, then these site plot plans must use the same scale to facilitate comparison between geosynthetic membrane layers.

   All geomembrane panels must have a passing ELLS test for Staff to certify construction of the lined area.

f. Perform post-construction CQA visual oversight during the placement of subsequent lifts of PCS on side slopes after completion of containment system construction activities and certification by the San Diego Water Board. The Discharger must perform these CQA activities and include a description of the activities in the Annual Summary Report.

g. Submit a Final Construction CQA Report to the San Diego Water Board for review and comment after liner construction activities are completed and prior to waste placement in the new lined unit/cell. Once the Final Construction

CQA Report is deemed complete, the San Diego Water Board will perform a Liner Certification inspection in accordance with CCR title 27, section 20310(e). The Discharger must obtain a Liner Certification letter from the San Diego Water Board approving the construction prior to waste placement in the new lined unit/cell.

14. **Engineering Measures for Slope Stabilization.** Maintain stability of all slopes during each phase of construction and operation, including clearing and grubbing, excavation, blasting, construction, waste filling, and closure. The JTD identified numerous seismic hazards within the Landfill footprint that could result in slope failures and compromise the integrity of containment structures. These seismic hazards include two major landslide complexes referred to as Landslide A and Landslide C, the Forster Fault, fault splays from the Cristianitos and Forster Faults, and stratigraphic folding and displacement. The static and seismic stability evaluations provided by the Discharger as part of the JTD indicate the following engineering measures are necessary to maintain slope stability of the Landfill:

    a. Construction of an engineered buttress to stabilize landslide deposits[11] within the Phase A footprint. Property boundaries constrain the Discharger's ability to completely remove these landslide deposits, resulting in a characteristically weaker substrata with a higher potential for slope failures in this area of the Landfill.

    b. Construction of an engineered fill shear key spanning the width of the landslide deposit, at the toe of the lined slopes. The shear key will be up to 1,000 feet wide, 2,000 feet long, and extend to a depth of up to 150 feet.

    c. Construction of an engineered buttress at the toe of Landslide C[12] and the removal of landslide deposits at the headscarp of Landslide C.

    The Discharger must include a stability analysis for each expansion area and an updated global stability analysis incorporating the new expansion area and any engineering structures for slope stabilization that demonstrate compliance with CCR title 27, section 21750(f)(5). This information must be included in each iteration of the JTD and/or design report. The updated global stability analysis must evaluate the seismic stability of the entire Landfill at final buildout and include recommendations for additional remedial measures as needed to meet the stability requirements in CCR title 27, or to address known or unforeseen seismic hazards in future expansion phases of the Landfill.

[11] Referenced as "Landslide Deposit A" in the May 2023 Joint Technical Document.
[12] As named in the May 2023 Joint Technical Document submitted by OWCR.

The Discharger proposed conceptual engineering measures to mitigate the potential impacts for Landslide C within the Landfill waste footprint. The Discharger must perform additional evaluations of the landslide deposit stability and corresponding mitigation measures in the design documents for future lateral expansions of the Landfill. If the additional stability evaluations result in less than 1.5 pseudo-static factor of safety or six or more inches of seismic displacement for any future expansion, the Discharger must add and/or modify the mitigation measure designs to meet the regulatory requirements.

G. LANDFILL OPERATION SPECIFICATIONS

The Discharger must comply with the following specifications for the operation of the Landfill. These specifications are applicable throughout the operating life of the Landfill.

1. **Proper Operation and Maintenance.** The Discharger must properly operate and maintain the Landfill and all facilities, treatment, control, and containment systems used by the Discharger to achieve and maintain compliance with the specifications of this Order. Proper maintenance includes effective performance of the Landfill cover system, implementation of appropriate BMPs to control erosion, run-on and run-off, and operation of a dewatering system, as needed, for stability of the Landfill.

2. **Methane and Other Landfill Gases.** The Discharger must control, adequately vent, or remove methane and other landfill gases to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration of landfill gases through the vadose zone.

3. **Landfill Leachate and Condensate.** Leachate or landfill gas condensate generated by the Landfill must be managed in a manner that is consistent with CCR title 27, section 20340 and Code of Federal Regulations, title 40, part 258.28. The Discharger must meet the following conditions if proposing to reuse leachate and/or landfill gas condensate for dust control at the Landfill:

    a. The leachate or landfill gas condensate is produced within Zone 4 and proposed for reuse in Zone 4.

    b. The leachate or landfill gas condensate is reused in a composite lined waste management unit equipped with a leachate collection and removal system.

4. **Load Check Program.** The Discharger must implement a load check program approved by CalRecycle and compliant with CCR title 27, section 20870 to ensure that only wastes compatible with the containment system are accepted for disposal at the Landfill.

5. **Hazardous Waste Exclusion Program.** The Discharger must implement a hazardous waste exclusion program pursuant to CCR title 27, section 20870, and 40 CFR part 258.20 and ensure that any household hazardous wastes are diverted to the household hazardous waste collection center. The Discharger must comply with any additional load inspection requirements imposed by the LEA with jurisdiction over the facility.

6. **Surplus Soils.** The Discharger must manage and stockpile surplus soils used for Landfill construction projects, operations, or cover in a manner that does not cause or contribute to the failure of engineered slopes on cut or fill material, native ground, or adversely impact the integrity or performance of the Landfill's foundation, liner system, waste containment structures, or the structures that control leachate, landfill gas, surface water drainage, or erosion. The Discharger's design report for any lateral expansion must include designated areas for surplus soil management and stockpiles resulting from excavation activities.

7. **Water Use.** The Discharger must limit the use of water used for landfill maintenance to the minimum volume of water necessary for dust control and must only be applied (a) by spraying; (b) on covered areas and not on trash; and (c) in quantities that do not exceed the volume of water necessary to reduce immediate dust hazards. The Discharger is encouraged to use recycled water for dust control, an identified reuse in the Statewide Water Quality Control Policy for Recycled Water[13], in order to support water sustainability and mitigate the impacts of climate change.

8. **Industrial Stormwater Management.** The Discharger must manage stormwater run-on and run-off in accordance with the Statewide Industrial General Permit for Storm Water. The Discharger must protect the Landfill from washout or erosion of cover soils, including daily and interim covers, to maintain the integrity of the containment system and to protect receiving water quality and beneficial uses. The stormwater management system must be designed to manage run-on and run-off from a 100-year, 24-hour storm event. The definition of a 100-year, 24-hour storm event must be re-evaluated every five years to account for extensive periods of drought, seasons of heavy rain, and other effects of climate change. The Discharger must include the re-evaluation and definition of the 100-year, 24-hour storm event in the Annual Compliance Report for the following year. The re-evaluation must include a comparison of the newly calculated design storm, with the previously calculated design storm, and a determination that the stormwater conveyance system is adequately sized to manage stormwater run-on and run-off. Based on the results of the re-evaluation, the design and construction of storm water conveyance and containment structures must be adjusted to accommodate higher volumes of stormwater run-on and run-off. Stormwater conveyance and

[13] See State Water Resources Control Board Resolution No. 2018-0057.

containment structures must also be updated and adjusted for each new expansion area of the Landfill.

The Discharger must implement the following minimum operational measures to manage stormwater run-on and run-off at the Landfill:

a. BMPs must be constructed and implemented prior to the start of the rainy season on **October 1st** of each year. This includes any necessary construction, grading, maintenance, or repairs of precipitation and drainage control facilities constructed to prevent erosion, exposed wastes, ponding, flooding, or to prevent surface drainage from contacting or percolating through wastes at the Landfill. The Discharger is responsible for performing maintenance and repairs needed due to changing site conditions at any time during the rainy season.

b. The Landfill must be graded and maintained to minimize infiltration of precipitation into the waste at the Landfill. This can be accomplished by grading to promote positive drainage and prevent ponding and implementing measures including, but not limited to, limiting the active disposal area of the Landfill to one day of operation at a time.

c. Precipitation that falls within the boundary of the Landfill but does not interact with waste must be collected by a system of berms, ditches, down chutes, swales, and drainage channels, and must be diverted off the waste footprint and into an on-site detention basin.

d. Precipitation that interacts with waste on the working face of the Landfill or exposed wastes resulting from erosion or construction activities, must be treated as leachate. The Discharger must collect and manage leachate generated from precipitation in a manner consistent with this Order and CCR title 27. The Discharger must ensure that leachate generated during precipitation events does not enter the stormwater conveyance system. Any stormwater that mixes with leachate is considered wastewater and must be managed accordingly.

e. Stormwater management structures must be sized and maintained to effectively divert sheet flow run-off laterally, or via the shortest distance, into the drainage and collection facilities. Stormwater management structures may be updated or replaced as needed to reflect changing site conditions. The Discharger must submit justification and documentation for the modifications to the stormwater management structures for the San Diego Water Board staff's review and approval, which may require an amendment to the Order.

f. Erosion control BMPs must be used to protect drainage conveyance features in areas where erosive flow velocities may or are known to occur. Effective erosion control BMPs must be implemented on outer side slopes and interim bench ditches to control erosion when necessary.

g. Erosion control BMPs must be implemented in areas where high storm water flow velocities occur at terminal ends, down chutes, or where down chutes cross access roads.

h. Sediment accumulated in the detention basins must be removed whenever the volume of a detention basin has been reduced by 25-percent of the basin's design capacity. The Discharger must install a visual marker in all detention basins to display sediment levels relative to percentage of each basin's design capacity.

i. Landfill covers, including daily and interim covers, must be maintained to minimize percolation of surface water through waste.

9. **Protective Cover Soil Placement.** The PCS must be placed up on the lined side slope incrementally during operation of the Landfill. The PCS must have a minimum thickness of two feet and be placed in a manner that maintains interim stability conditions and provides protection to the underlying liner components. Placement of the PCS on the lined side slopes must not compromise the integrity of any side slope liner components.

10. **Landfill Intermediate Cover.** Landfills with intermediate cover as defined in CCR title 27, section 20700, which have been, or will be, exposed for longer than two years from the time the intermediate cover was installed, must have a minimum of two feet of soil cover. All intermediate covers must be designed and constructed to minimize percolation of liquids through wastes in accordance with CCR title 27, section 20705. The lower one foot of intermediate cover materials may be composed of inert, or nonhazardous contaminated soils. The upper one foot of intermediate cover materials must be composed of clean soils.

11. **Landfill Daily Cover and Alternate Daily Cover.** The Discharger must cover disposed solid waste with a minimum of six inches of soil at the end of each operating day, in accordance with CCR title 27, section 20680. Contaminated soils, as defined in CCR title 14, section 17361(b) may be used as daily cover, however, soils containing contaminates other than petroleum hydrocarbons require approval from the San Diego Water Board. The Discharger may use alternative materials with alternative thickness for daily cover, such as tarps, with approval from the Local Enforcement Agency.

H. DISCHARGE SPECIFICATIONS FOR ALLOWABLE WASTES

The following section contains the specifications for waste streams allowed for acceptance and disposal at the Landfill.

1. **Non-Hazardous Wastes.** Only non-hazardous and inert solid wastes, as defined in CCR title 27, sections 20220 and 20230 may be discharged into the Landfill.

2. **Special Wastes.** Special Wastes may be accepted at the Landfill in accordance with the site-specific Operation Plan defined in the JTD, all applicable local, State, and federal requirements, and if the Discharger can demonstrate that special wastes proposed for disposal in the Landfill meet the definition of a non-hazardous waste. The requirements for the handling and disposal of special wastes are outlined in **Attachment C** to this Order.

I. CLOSURE AND POST-CLOSURE SPECIFICATIONS

1. **Closure and Post-Closure Maintenance.** The Discharger must comply with all applicable requirements of CCR title 27, subchapter 5, article 2 for the Closure and Post-Closure Maintenance of the Landfill.

2. **Use of Licensed Professionals.** The Discharger must close the Landfill in accordance with CCR title 27, section 21710(d). All closure activities must be conducted by or under the direct supervision of a California licensed civil engineer or certified engineering geologist.

3. **Final Cover.** The Discharger must design and construct the final cover to function with minimum maintenance. The final cover must consist of, at a minimum, a two-feet thick foundation layer which may incorporate the existing interim soil cover; a two-feet thick compacted soil layer having a minimum permeability of 1×10^{-5} cm/sec or less, with a relative compaction of approximately 90-percent; and a minimum one-foot thick vegetation layer. The Discharger may also propose an engineered alternative final cover pursuant to CCR title 27, section 20080(b), with a demonstration certifying that the proposed engineered alternative meets the performance criteria of the prescriptive design provided above. The upper two feet of soil used in a final cover must be free of debris, deleterious materials, and contaminants.

4. **Final Cover Grading.** The Discharger must grade the final cover to a minimum slope of three percent to promote sheet flow. The Discharger must maintain the final cover to prevent ponding and infiltration of surface water.

5. **Precipitation and Drainage Controls.** The Discharger must grade the final cover to divert precipitation away from the Landfill, to prevent ponding of surface water over wastes, and to resist erosion as a result of precipitation events with a return

frequency for a 24-hour, 100-year storm event. Any drainage layer in the final cover must be designed and constructed to intersect with the final drainage system for the Landfill in a manner that resists erosion from the design storm event and promotes free drainage from all portions of the final cover in accordance with CCR title 27, sections 20365(c), 20365(d), and 20365(e).

6. **Post-Closure Maintenance Period.** The post-closure maintenance period must continue pursuant to CCR title 27, section 20950(a)(2)(A)(2) until the San Diego Water Board determines that the remaining wastes in the Landfill no longer have the potential to threaten water quality.

7. **Cover Vegetation.** Vegetation used for the final cover must be selected to require minimum irrigation and maintenance and must not impair the integrity of the final cover or containment structures. Vegetation used on final covers must meet the requirements of CCR title 27, section 21090(a)(3)(A)(1).

J. PROVISIONS

1. **General Provision.** The discharge of wastes must, at all times, be in conformance with applicable State and federal regulations, water quality standards, including but not limited to, all applicable provisions and prohibitions contained in the Basin Plan including beneficial uses, water quality objectives, and implementation plans. This Order does not preempt or supersede the authority of municipalities, flood control agencies, or State and local agencies to prohibit, restrict, or control discharges of waste subject to their jurisdictions.

2. **Duty to Comply.** Any noncompliance with this order constitutes a violation of the Water Code and is grounds for enforcement action, and termination, revocation and re-issuance, or modification of this Order.

3. **Revision of Waste Discharge Requirements.** The filing of a request by the Discharger for the modification, revocation and reissuance, or termination of this Order, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order. This San Diego Water Board may modify, revoke and reissue, or terminate this Order for cause including, but not limited to, the following:

    a. Violation of any term or condition of this Order.

    b. Obtaining this Order by misrepresenting or failure to fully disclose all relevant facts.

    c. Changes in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

d. Changes in the nature of the discharge of waste into the Landfill.

4. **Change in Ownership.** This Order is not transferrable to any person except after notice to the San Diego Water Board. The San Diego Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate other requirements as may be necessary under the Water Code. The Discharger must submit notice of any proposed transfer of this Order's responsibility and coverage under ***Reporting Requirement K.15***. The Discharger must also inform the transferee of the status of the Discharger's annual fee account. When the Discharger notifies the San Diego Water Board of a transfer of ownership, the notification must include a proposed schedule for the succeeding owner to provide evidence of acceptable financial assurance responsibility to the San Diego Water Board.

5. **Property Rights.** This Order does not convey any property rights of any sort, or any exclusive privilege. 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.

6. **Entry and Inspection.** Under the authority of Water Code section 13267(c), the Discharger must allow the San Diego Water Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

   a. Enter the Discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order.

   b. Access 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 by this Order.

   d. Sample or monitor, at reasonable times, any substances or parameters at any location, for the purpose of assuring compliance with this Order, or as otherwise authorized by the Water Code.

   e. 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.

K. REPORTING REQUIREMENTS

The Discharger must furnish, within a reasonable time frame, any information requested by the San Diego Water Board to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger must also furnish copies of records required by this Order, to the San Diego Water Board upon request.

1. **Report of Waste Discharge.** The Discharger must file a Report of Waste Discharge (ROWD) or amendment to the Joint Technical Document, at least ***120 days*** prior to the following:

    a. An increase in area or depth proposed for solid waste disposal beyond the area specified in waste discharge requirements.

    b. A significant change in the disposal method (e.g., change from land disposal to land treatment), location, or volume (e.g., an increase in the daily volume of waste accepted for disposal)

    c. A change in the type of waste accepted for disposal.

    d. The addition of a major industrial waste discharge to a discharge of domestic waste, or the addition of a new process or product by an industrial facility resulting in a change in the charger or type of waste discharged.

    e. Any planned change in the regulated facility or activity may result in noncompliance with this Order.

    f. As required for implementation of an Evaluation Monitoring Program, or a Corrective Action Monitoring Program, as required in CCR title 27, sections 20425 and 20430.

2. **Design Report.** The Discharger must submit a design report to the San Diego Water Board for review and consideration at least ***120 days*** prior to the beginning of construction for each new waste management unit proposed for expansion of the Landfill. The design report must include, at a minimum, the engineered design plans, engineering specifications, material specifications, detailed stability analysis for each phase of expansion, an updated global stability analysis, grading and construction plans, stockpile locations for excavated materials, descriptions of proposed liner systems or other containment structures, leachate collection and removal system components, leak detection system components, precipitation and drainage control facilities, interim covers, a description of all planned and existing ancillary facilities, the results of any field or laboratory tests completed prior to construction activities, and any other information required by CCR title 27, section 21760(a)(1).

If there are no deviations to the original liner design, slope and waste unit configurations, or strength parameters analyzed in the original global stability analysis, a statement to that effect may be made in the design report, to waive the need for an updated analysis.

3. **Daily Field Reports.** The Discharger must submit a daily field report to the San Diego Water Board during construction of each new stage of the Landfill, or during corrective action construction activities. The San Diego Water Board must receive the daily field reports ***by noon*** of the day following report preparation. Daily field reports must include observations, photographs, maps showing the area(s) of activity each day, records of field activities, problems identified during construction, and actions taken to correct the problems.

   The Discharger must submit daily field reports for all activities planned or included in the development of the Landfill including clearing, grubbing, grading, blasting, construction of containment systems, stormwater conveyance systems, detention ponds, or final covers. The Discharger must submit a daily field report or notify the Board for all days of construction, including days when activities are not being performed due to weather, supply chain issues, staffing, etc. Daily field reports must be signed by the CQA Officer.

4. **Final Construction Report.** The Discharger must submit a Final Construction Report to the San Diego Water Board for Staff review and comment after completion of each stage of construction, and prior to the discharge of waste into the constructed cell. At a minimum, the Final Construction Report must include the following components:

   a. Final Engineering Report that includes, but is not limited to, as-built plans, specifications and descriptions of materials used to construct containment systems, LCRS components, leak detection system components, precipitation and drainage control facilities, interim covers, and a description of ancillary facilities as required by CCR title 27, section 21760(a)(1).

   b. Final CQA Report that includes a written summary of the CQA program, including the monitoring and technical oversight provided by the CQA Officer, laboratory and field testing results, analyses, and copies of the CQA Officer's original field notes, and a certification as described in CCR title 27, section 203 *et seq.*

5. **Monitoring Reports.** The Discharger must submit the semi-annual Groundwater Monitoring Reports and Annual Compliance Reports according to the schedule included in the MRP, and pursuant to Water Code section 13267 and CCR title 27, section 20385. In addition, the Discharger must comply with all notice and reporting requirements of the California Department of Water Resources, and with

any agency well-permitting requirements imposed by a local agency regarding the construction, alteration, destruction, maintenance, or abandonment of any monitoring wells used for compliance with this Order and the MRP, as required under Water Code sections 13750 and 13755, and local agency requirements.

6. **Significant Maintenance Activity Workplan.** The Discharger must submit a workplan for Staff review and concurrence prior to any significant maintenance activities that could alter the existing surface drainage patterns or change existing slope configurations. These activities may include importing and stockpiling fill materials, the design and installation of soil borings or groundwater monitoring wells, construction of stormwater conveyance features, and other devices used for site investigation or monitoring purposes. Unless otherwise directed by San Diego Water Board staff, the Discharger may initiate the activities proposed in the workplan ***30 days*** after the San Diego Water Board received the workplan for review and consideration. Activities associated with normal landfill operations, such as drainage pipe installations or wet deck construction, are not considered significant maintenance and do not require the Discharger to submit a Significant Maintenance Activity Workplan.

7. **Post Rain Inspection Reports.** The Discharger must submit a Post-Rain Inspection Report ***within 48 hours*** of a rain event with a cumulative rainfall of 1-inch or greater over a 72-hour period. The Post-Rain Inspection Report must include the date(s) of the rain event, how much precipitation was received each day of the rain event, a narrative describing where run-off was captured, the quality and effectiveness of BMPs, and any erosion, ponding, or exposed wastes observed during the inspection. The Post-Rain Inspection Report must also include photographs of the detention basin, BMPs, top deck, side slopes, and any areas where damage is observed during the inspection. If the deadline to submit a Post-Rain Inspection Report coincides with a non-operational day when the Landfill is closed, the Discharger may submit the report by noon of the next business day.

8. **Post-Seismic Event Inspection Report.** The Discharger must submit a Post-Seismic Event Inspection Report ***within seven days*** of a seismic event strong enough to be felt or recorded at the Landfill, to document site conditions. The Discharger may request an extension to submit the written report from the San Diego Water Board Executive Officer, should the site be inaccessible or severely damaged following the seismic event. The Post-Seismic Event Inspection Report must include the date(s) of the seismic event, the details of the seismic event including magnitude, fault line, epicenter, distance to the site, and any other details available regarding the event. The Post-Seismic Event Inspection Report must also include a detailed description of any damage sustained by containment structures; monitoring systems including wells, probes, mainlines and headers; detention basins; leachate tanks; condensate tanks; ancillary features; stockpiles; access roads; the flare station; or any mass movement or slope failure on outer slopes,

waste slopes, or within landslide deposits. The Discharger must include photographs documenting site conditions and an annotated map documenting the locations of any damage sustained during or after the seismic event.

9. **Notification of Noncompliance.** The Discharger must notify the San Diego Water Board either orally or via email, ***within 24-hours*** of discovering any of the following conditions at the Landfill:

   a. **Endangerment of Human Health or the Environment**. The Discharger must report any noncompliance which may endanger human health or the environment.

   b. **Damage from Construction Activities**. The Discharger must any instances of damage caused by construction activities to the liner system, cover system, LCRS, landfill gas system, or stormwater conveyance features at existing or new construction areas. Construction activities may include liner repairs, liner and waste removal activities, liner construction activities, and blasting conducted to prepare an area for construction.

   c. **Damage from Natural Causes.** The Discharger must report any instances of damage to the liner system, cover system, LCRS, monitoring systems, or stormwater conveyance features, from natural causes including seismic events, storm events, or fires. This damage includes washout from storm events, landslides, slope creep, stress cracks or fissures, ground rupture, sinkholes, subsidence, liquefaction, ponding, exposed waste, melted monitoring systems, explosions, and uncontrolled venting of landfill gas.

   d. **Slope Failure or Seismic Displacement.** The Discharger must report any slope failure or seismic displacement that threatens the integrity of the liner system, cover system, LCRS, monitoring systems, or structures that control surface drainage or erosion, and/or stormwater conveyance systems.

   e. **Seepage from the Landfill.** The Discharger must report the discovery of any previously unreported seepage from the Landfill.

   f. **Leachate Production Increases.** The Discharger must report a progressive increase in leachate generated at the Landfill and collected in the LCRS tanks, leachate generation at or over 85-percent capacity of the LCRS, or an increase in the volume of fluid in any unsaturated zone monitoring system, pursuant to CCR title 27, section 21710(c)(3).

   g. **Leachate and Landfill Gas Condensate Release.** The Discharger must report any release of leachate from the LCRS or landfill gas condensate from the landfill gas capture system.

h. **Exposed Wastes.** The Discharger must ***immediately*** cover any exposed waste discovered at the Landfill.

i. **High Heat Events.** The Discharger must report temperature readings of 145°F or greater in perimeter landfill gas probes, or if a temperature reading of 170°F is measured in any area of the Landfill. Following notification, the Discharger must provide weekly updates to the San Diego Water Board that include a discussion of any actions taken to reduce temperature readings and investigate the cause of the elevated temperatures in the affected area.

j. **Post-Rain and Seismic Event Noncompliance.** The Discharger must report significant maintenance issues discovered during post-rain inspection reports and post-seismic event inspection reports, including ponding, erosion, and damage to containment systems or stormwater conveyance systems.

k. **Petroleum Spills.** The Discharger must report any discharges of petroleum products from above ground or underground storage tanks, vehicles, or heavy machinery used for construction or operation of the Landfill, to land, surface water, groundwater, or stormwater conveyance systems.

10. **Emergency Response.** The Discharger must submit an Emergency Response ***within 48-hours***, in writing, documenting the immediate steps taken to (1) stop the release; (2) cover wastes; (3) stabilize slopes; (4) repair damage; (5) reduce leachate generation; (6) mitigate a high heat event, and/or address the noncompliance issues listed above and described in the Notification of Noncompliance.

11. **Emergency Response Work Plan**. The Discharger must submit an Emergency Response Work Plan ***within seven days*** of either discovering an area of noncompliance, or in response to a staff enforcement letter or notice of violation issued by the San Diego Water Board. The Emergency Response Work Plan must include (1) a description of the noncompliance issues and its cause; (2) the period of noncompliance, including exact dates and time; (3) the steps necessary to investigate and evaluate the cause of the noncompliance; (4) the steps planned, or design or operational changes needed, to reduce, eliminate, or prevent recurrence of the noncompliance; (5) a map documenting the location(s) of the noncompliance; (6) the methods of analysis proposed for sampling, if applicable; (7) and a time schedule for completion of these steps. The Discharger must receive written concurrence from San Diego Water Board staff prior to implementation of the Work Plan. The Discharger may submit a written request to the San Diego Water Board Executive Officer for an extension to submit the Emergency Response Work Plan should the site be inaccessible or severely damaged.

12. **Emergency Response Report.** The Discharger must submit an Emergency Response Report to the San Diego Water Board ***within two weeks*** of completing the steps proposed in the Emergency Response Work Plan. The Emergency Response Report must outline the Discharger's actions taken or operations changes implemented prevent immediate impacts to human health and the environment, and also to reduce, eliminate, or prevent recurrence of the noncompliance at the Landfill.

13. **Reporting of Capacity and Site Life.** The Discharger must report the remaining capacity and site life estimations in the Annual Report due **April 30th** each year.

14. **Incomplete Reports.** Where the Discharger becomes aware that it failed to submit any relevant facts or submitted incorrect information in a ROWD or JTD, groundwater monitoring report, design report, CQA Report, or any other report submitted to the San Diego Water Board, the Discharger must promptly submit the additional facts or corrected information.

15. **Change in Ownership.** The Discharger must notify the San Diego Water Board in writing ***at least 30 days*** in advance of any transfer of the property to a new owner. The notification must include an acknowledgement that the current owner is liable for violations of the Order up to the date of transfer, and that the new owner is liable for any violations after the date of ownership of the property transfers. The notification must include an acknowledgement signed by the new owner that the new owner accepts responsibility for compliance with this Order, including financial assurances as the State may require, for implementation of maintenance and monitoring of the Landfill.

16. **Report Declaration.** All applications, reports, or information submitted to the San Diego Water Board are part of the public record and must be signed and certified as follows:

    a. All reports required by this Order and any other information required by the San Diego Water Board must be signed by a person designated below, or by a duly authorized representative of that person, as described in K.16.b.

        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, respectfully.*

        iii. *For a municipality, or State, federal, or other public agency – by either a principal executive officer or ranking elected official.*

b. The person designated above may defer signatory duties to a duly authorized representative. An individual is a duly authorized representative only if:

i. *The authorization is made in writing by a person described in paragraph (1) 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.*

iii. *The written authorization is submitted to the San Diego Water Board.*

The authorization, in the form of a Signature Authority Statement, must be submitted to the San Diego Water Board ***within 30 days*** from either (1) adoption of this Order, or (2) a change in the duly authorized representative.

c. Any person signing a document pursuant to this section must make a certification statement regarding the accuracy and authenticity of the information provided in the document. The certification statement must be included as part of the transmittal letter submitted with any document referenced within this Order. The certification statement must read as follows:

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

17. **Duty to Use Licensed Professionals.**
The Discharger must provide documentation that all plans and reports required under this Order are prepared by or under the direction of appropriately qualified professionals. CCR title 27, sections 20324(b) and (d), 20950(b), and 21090(b)(1)(C); and the California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction and supervision of licensed professionals. A statement of qualifications and license numbers of the responsible lead professionals must be included in all plans and reports submitted by the Discharger. The lead professional must sign and affix their license stamp to the report, plan, or document.

18. **Report Submission Procedures.** Unless otherwise directed by the Executive Officer, all correspondence and documents submitted to the San Diego Water Board must include the reference code **T10000020043:Site Restoration and Waste Management Supervisor**.

    The Discharger must submit all paper or electronic copies of reports and notifications required by this Order, including those required by the MRP, and any other information requested by the San Diego Water Board, via email to:

    California Regional Water Quality Control Board, San Diego Region
    sandiego@waterboards.ca.gov
    Attn: Site Restoration and Waste Management Supervisor

    All information submitted to the San Diego Water Board in compliance with this Order is required to be submitted electronically via the internet into the GeoTracker database at http://geotracker.waterboards.ca.gov/ in accordance with CCR title 23, chapter 30, division 3, section 3890 *et seq*. The electronic data must be uploaded on, or prior to, the due dates established in this Order and the MRP.

19. **On-Site Record Keeping.** The Discharger must retain and have available for review by the San Diego Water Board during normal business hours, in a location at or near the Landfill, the following documents and records:

    a. Inspection records, training procedures, and notification procedures required by this Order and 40 CFR part 258.20.

    b. Any Landfill design documentation for placement of leachate or gas condensate as authorized by this Order and 40 CFR part 258.28(a)(2).

    c. Any demonstration, certification, finding, monitoring, testing, or analytical data as required by this Order, CCR title 27, and 40 CFR, subpart E part 258.50, *et seq.*

    d. Closure and post-closure maintenance plans, and any monitoring, testing, or analytical data as required by this Order, CCR title 27, and 40 CFR parts 258.60 and 258.61.

    e. Any cost estimates and financial assurance documentation as required by this Order, CCR title 27, and 40 CFR, subpart G, part 258.70 *et seq.*

    f. Certifications from the waste generator that the analyses submitted are representative of the material to be disposed of at the Landfill.

    g. Analytical data or Material Safety Data Sheets representative of the waste stream.

h. The Chain-of-Custody form(s) showing the sample's integrity was not compromised.

i. The approximate volume (in cubic yards) of the waste(s) and the transporter's information.

j. Any information required by 40 CFR part 258.29(a)(4) [placement of leachate or landfill gas condensate as allowed by 40 CFR part 258.28(a)(2), and this Order], part 258.29(a)(6) [closure and post-closure plans and monitoring, testing, or analytical data as required by 40 CFR parts 258.60 and 258.61], and part 258.29(a)(7) [any cost estimates and financial assurance documentation required by 40 CFR, subpart G].

k. Notifications from the Discharger required pursuant to CCR title 27, sections 21710(a)(4) and 21710(c), and this Order.

l. Records required to be kept in compliance with CCR title 27, section 21720(f).

m. The JTD and any amendments thereto prepared pursuant to CCR title 27, section 21585(a)(4) and any additional records and certifications required to be kept in compliance with this Order.

L. DECLARATIONS BY THE SAN DIEGO WATER BOARD

1. **Enforcement Actions.** Pursuant to Water Code section 133580(a), any person who is in violation of any WDRs, or prohibition issued, reissued, or amended by the San Diego Water Board, or who discharges waste, or causes or permits waste to be deposited where it is discharged into waters of the State, will be liable civilly under Water Code section 13323, and remedies may be imposed in accordance with Water Code sections 13350(d) and (e).

2. **Enforcement, Including Penalties, for Violations.** The San Diego Water Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Order. Water Code section 13350 provides that any person who intentionally or negligently violates any WDR issued, or amended, by the San Diego Water Board is subject to administrative civil liability of up to 10 dollars per gallon of waste discharged, or if no discharge occurs, up to 100 dollars per day of the violations. Water Code section 13268 further provides that failure or refusal to submit technical or monitoring program reports required by this Order, is subject to administrative civil liability of up to 1,000 dollars per day of the violation. Higher monetary penalties are available through judicial enforcement of violations.

3. **Other Regulations.** The Discharger may be subject to additional federal, State, or local regulations.

4. **Administrative Review by the State Water Board.** Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320, and CCR title 23, section 2050. The petition must be received by the State Water Board (Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812) ***within 30 days*** of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

5. **Definitions.** Definitions of terms used in this Order are set forth in CCR title 27, section 20164, and in Water Code section 13050.

FIGURE 1: Landfill location map.

FIGURE 2: Prima Deshecha Property Zone Map.

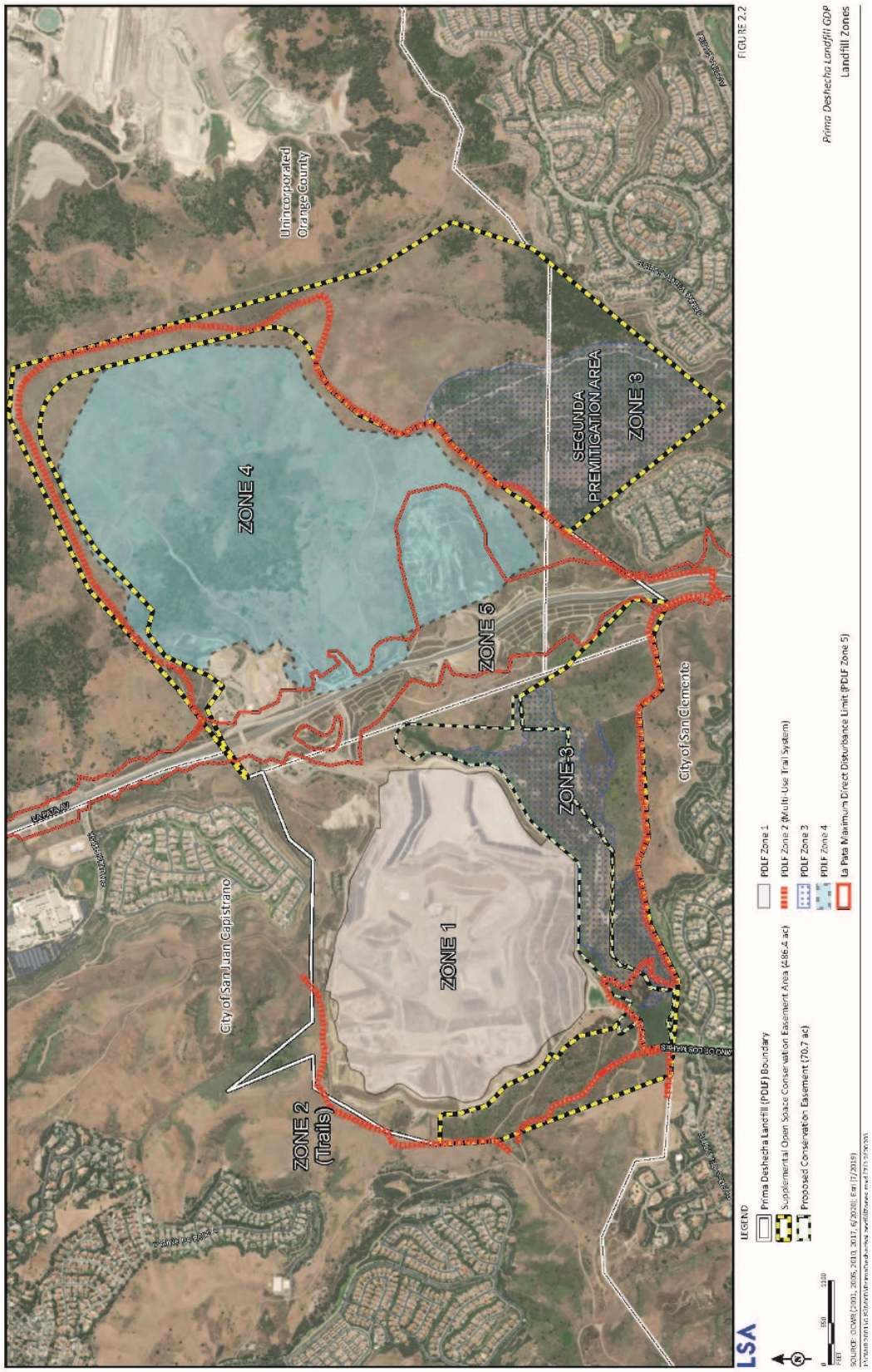
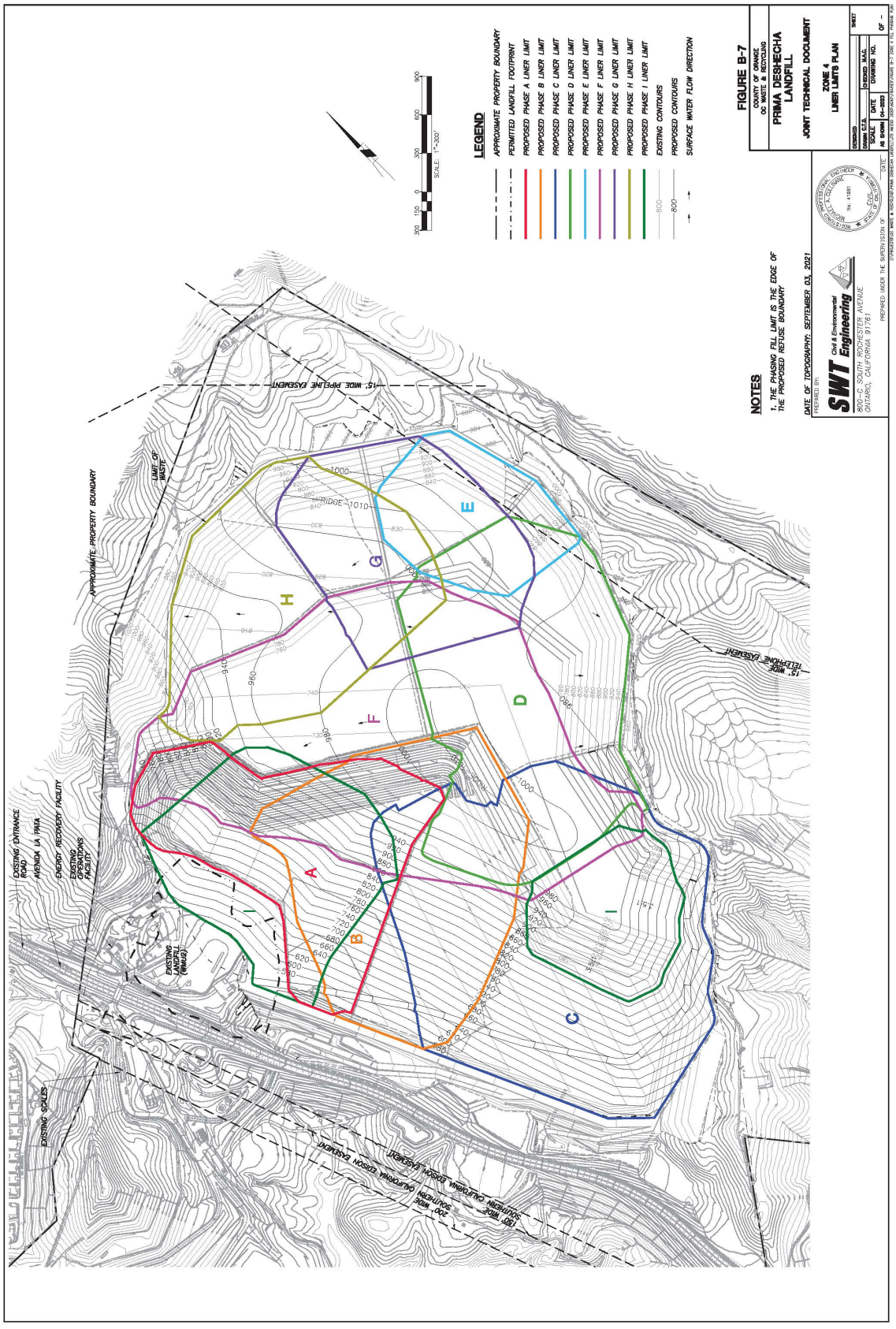


FIGURE 3: Zone 4 Landfill Map With Phases.



ATTACHMENT A

MONITORING AND REPORTING PROGRAM FOR

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING PRIMA DESHECHA ZONE 4 LANDFILL ORANGE COUNTY

TABLE OF CONTENTS

PART I. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) adopted this Monitoring and Reporting Program (MRP) pursuant to Porter-Cologne Water Quality Control Act (Water Code) section 13267, which authorizes the San Diego Water Board to require Orange County Waste and Recycling (Discharger) to furnish technical and monitoring program reports. The San Diego Water Board finds that:

A. LEGAL AUTHORITY. The San Diego Water Board issued this MRP pursuant to the Water Code commencing with section 13000, and implements the: (1) regulations and policies adopted by the State Water Resources Control Board (State Water Board) in State Water Resources Control Board (State Water Board) Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California*, and Resolution No. 93-62, *Policy for Regulations of Discharges of Municipal Solid Waste*, and Resolution No. 88-63, *Sources of Drinking Water*; (2) applicable State and federal regulations including California Code of Regulations (CCR), title 27 and Code of Federal Regulations (CFR), title 40, parts 257 and 258; (3) all applicable provisions of Statewide Water Quality Control Plans adopted by the State Water Board and the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan) adopted by the San Diego Water Board, including beneficial uses, water quality objectives, and implementation plans; (4) applicable provision of the California Health and Safety Code, division 20, chapter 6.5 (Hazardous Waste Control); and (5) relevant standards, criteria, and advisories adopted by other State and federal agencies.

B. PURPOSE. This MRP is necessary for the San Diego Water Board to determine the Discharger's compliance with Order No. R9-2025-0006, *Waste Discharge Requirements for Orange County Waste and Recycling, Prima Deshecha Zone 4 Landfill, Orange County* (Order) via surface water, vadose zone, and groundwater monitoring. The San Diego Water Board developed the directives of this MRP in accordance with CCR title 27, sections 20415 et seq., and 20420, which require the implementation of a Detection Groundwater Monitoring Program (DMP). The DMP will ensure the early detection of a release of waste constituents and waste degradation byproducts from the Prima Deshecha Zone 4 Landfill (Landfill). The Discharger's monitoring programs will also ensure the long-term protection of groundwater and surface water quality and beneficial uses within the Prima Deshecha Subarea of the San Clemente Hydrologic Area of the San Juan Hydrologic Unit.

C. QUALIFIED PROFESSIONALS. Qualified professionals must prepare or directly supervise the preparation of the technical and monitoring program reports required by this MRP. The use of qualified professionals ensures that the collected data and interpretations are reliable and accurate. Professionals should be licensed where applicable, and competent and proficient in fields pertinent to the required activities. California Business and Professionals Code section 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of licensed professionals.

D. CALIFORNIA ENVIRONMENTAL QUALITY ACT. Issuance of this MRP by the San Diego Water Board is a project under the California Environmental Quality Act (CEQA). The Orange County Board of Supervisors, pursuant to the requirements of CEQA, certified a final Environmental Impact Report (EIR) for the Prima Deshecha general development plan on November 1, 2001, and a supplemental EIR for the construction of the Landfill on January 25, 2022. Detailed findings regarding compliance with CEQA are set forth in the Information Sheet (**Attachment B**).

E. APPLICABILITY. This MRP establishes monitoring and reporting requirements for the Landfill. The Discharger must immediately implement the requirements of this MRP upon adoption by the San Diego Water Board.

IT IS HEREBY ORDERED that, pursuant Water Code section 13267 and CCR title 27, and 40 CFR, parts 257 and 258; the Discharger must comply with the following MRP requirements.

PART II. SAMPLING AND ANALYSIS PLAN

The purpose of the Sampling and Analysis Plan (SAP) is to provide a standard set of protocols applicable to all monitoring programs, regardless of media, to detect increased levels of constituents of concern (COC) that may indicate a release of waste or waste byproducts from the Landfill. The Discharger must incorporate the following into the SAP:

A. STANDARD MONITORING PROVISIONS. The Discharger must submit a SAP that incorporates these provisions and describes the sampling and analysis protocols for groundwater, leachate, surface water, and vadose zone monitoring for the Landfill. The San Diego Water Board must receive the SAP within 90 days of adoption of this MRP. The Discharger must receive written concurrence from San Diego Water Board staff prior to implementation of the SAP.

1. **Monitoring Systems.** Site-specific groundwater and surface water monitoring systems must comply with the detection monitoring requirements and associated performance standards included in CCR title 27, sections 20380 and 20385 et seq.

2. **Methods of Analysis**. Specific methods of analysis for use in groundwater and surface water monitoring at the Landfill must be consistent with the most current version of the U.S. Environmental Protection Agency's (USEPA) SW-846[1] or 40 CFR, part 136.[2] The Discharger must include, as part of the SAP, the rationale to use alternative analysis methods or test procedures. The San Diego Water Board must approve all proposed changes to the SAP prior to implementation.

3. **Sampling Frequency**. All monitoring results, including results from additional sampling points or COCs[3] that the Discharger monitors more frequently than required by this MRP, must be documented in the monitoring reports. The Discharger must also report the increased frequency of monitoring and specific monitoring location(s) to the San Diego Water Board for Staff concurrence prior to implementation.

4. **Protocols**. Sample collection, storage, and analysis must be performed in accordance with protocols included in the USEPA's SW-846 and in accordance with the approved SAP.

5. **Calibration**. All monitoring instruments and equipment must be properly calibrated and maintained as necessary to ensure accuracy of measurements.

6. **Sampling and Measurement Records**. Sampling and measurement records must include:

    a. The date, sample number, sampling location, and time of sampling and/or field measurement for groundwater, surface water, or vadose zone monitoring.

    b. The depth of groundwater at all monitoring locations.

    c. The name of the individual(s) who performed the sampling and/or field measurement at each monitoring location.

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[1] USEPA guidance document SW-846, "Test Methods for Evaluations of Solid Waste, Physical/Chemical Methods."

[2] 40 CFR, part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants: Procedures for Detection and Quantification."

[3] COCs are derived from 40 CFR, part 258, Appendix I. Appendix I COCs are those constituents likely to be derived from the Landfill wastes and are therefore appropriate to use as monitoring parameters when the intent of monitoring is to determine whether a release from the Landfill has occurred. The COCs from Appendix I also serve as the initial detection groundwater monitoring parameter for the Landfill.

d. The date and time that laboratory analyses of samples were started and completed for all media sampled.

e. The laboratory analytical techniques or methods used, including method of preserving the sample and any other details requested by the San Diego Water Board, such as the identity and volumes of reagents used.

f. The tabulated results of any measurements taken, including but not limited to laboratory analytical results, method detection limit, maximum concentration limit, depth to groundwater, and surface water flow rates, when applicable.

g. The laboratory quality assurance results (e.g., percent recovery, response factor, etc.).

h. The chain of custody forms.

B. RECORD RETENTION. The Discharger must retain all monitoring records, including calibration and maintenance records, and copies of all reports required by this MRP. The Discharger must maintain records for a minimum of five years from the date of sampling or measurement. The San Diego Water Board may extend this period during any unresolved litigation or when a release from the Landfill is indicated based on monitoring results.

C. STANDARD SAMPLING, ANALYSIS, AND REPORTING PROTOCOLS. The Discharger must incorporate the following standard protocols as part of the SAP:

1. The method of analysis must be appropriate for the expected concentrations.

2. Analytical results falling between the method detection limit (MDL) and the practical quantitation limit (PQL) must be reported as "trace" and must be accompanied by documents reporting both the MDL and PQL values for that analytical run.

3. MDLs and PQLs must be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Derived MDLs and PQLs are expected to closely agree with published USEPA MDLs and PQLs, in an interference-free laboratory.

4. The results must be flagged and reported in the Quality Assurance/Quality Control (QA/QC) report if the laboratory suspects that, due to a change in matrix or other effects, the MDL or PQL for a particular analytical run differs significantly from historic MDL or PQL values.

5. The MDL must always be calculated such that it represents a concentration associated with a 99-percent reliability of non-zero results.

6. The PQL must represent the lowest concentration at which a numerical value can be assigned with reasonable certainty.

7. All QA/QC data must be reported, along with the applicable sample results. The QA/QC information must include the method, equipment, analytical detection and quantitation limits, the recovery rates, an explanation for any recovery rate that is less than 80-percent, the results of equipment and method blanks, the results of spiked and surrogate samples, and the frequency of quality control analysis. Sample results must be reported unadjusted for blank results or spike recovery. In cases where contaminants are detected in field, trip, or laboratory blank samples, the accompanying sample results must be appropriately flagged in the tabulated data.

8. A proposed alternative statistical or non-statistical procedure may be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (e.g., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Reporting Period in which QA/QC samples show evidence of laboratory contamination for that constituent, upon receiving written approval from the San Diego Water Board. Analytical results involving detection of these analytes in any background or downgradient sample must be reported in the monitoring report summary and flagged in the results tables for easy reference by the San Diego Water Board.

D. DETECTION GROUNDWATER MONITORING. The SAP must include a DMP compliant with the specific requirements and performance standards found in CCR title 27, sections 20415 and 20420, and 40 CFR parts 258.50 and 258.54.

1. Detection Groundwater Monitoring Program Requirements. The DMP must include:

   a. A sufficient number of background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater that has not been affected by a release from the Landfill.[4]

   b. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of

[4] CCR title 27, section 20415(b)(1)(A).

groundwater passing the Point of Compliance and allow for the detection of a release from the Landfill.[5]

c. A sufficient number of monitoring points installed at additional locations and depths to yield groundwater samples from the uppermost aquifer to provide the best assurance of the earliest possible detection of a release from the Landfill.[6]

d. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from portions of the zone of saturation, including other aquifers not monitored pursuant to CCR title 27, section 207415 (b)(1)(B)(2), to provide the best assurance of the earliest possible detection of a release from the Landfill.[7]

e. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from zones of perched water to provide the best assurance of the earliest possible detection of a release from the Landfill.[8]

f. Monitoring point locations and depths that include the zone(s) of highest hydraulic conductivity in each groundwater body monitored.[9]

2. **Detection Groundwater Monitoring Program Network.** The groundwater monitoring network for the Landfill is comprised of two background wells, two compliance wells, a downgradient monitoring point, and piezometers. The background monitoring wells are MW-5A and MW-6. The compliance monitoring wells are MW-2, MW-10FR, and MW-9R when the southern portion of Zone 4 is developed. MW-9R is currently an upgradient background well for Zone 1. The Discharger constructed an additional deep well near MW-9R for monitoring the upgradient background for Zone 1 when the southern portion of Zone 4 is developed and MW-9R is transitioned to a downgradient compliance well for Zone 4. The piezometers for measuring groundwater elevations are MP-10, 08-P4, 08-P11, and 08-P12.

[5] CCR title 27, section 20415(b)(1)(B)(1).
[6] CCR title 27, section 20415(b)(1)(B)(2).
[7] CCR title 27, section 20415(b)(1)(B)(3).
[8] CCR title 27, section 20415(b)(1)(B)(4).
[9] CCR title 27, section 20415(b)(1)(B)(5).

3. **Detection Monitoring Program Elements.** The DMP must implement all applicable State and federal requirements[10] and all applicable elements of a DMP. The DMP must include the following minimum elements:

   a. The Discharger must use and maintain groundwater monitoring wells to conduct the detection groundwater monitoring program at the Landfill.

   b. The groundwater samples must be collected, analyzed, and reported for the general chemistry parameters and COCs at the frequencies shown in **Table 1 of Part II.D**, and any additional parameters included in the approved SAP.

   c. The static water elevation must be measured to the nearest 0.01 foot in each well prior to purging the wells for sampling.

   d. Samples must be collected for any given monitored medium, for all monitoring points and background monitoring points, to satisfy the data analysis requirements for a given Reporting Period.

   e. Samples must be collected in a manner that ensures sample integrity.

   f. Samples must be collected on a consistent schedule, with sampling events evenly spaced approximately six months apart.

   g. The Discharger must assess the well for the presence of a floating immiscible layer prior to purging and sampling of the monitoring wells. If an immiscible layer is found, the Discharger must notify the San Diego Water Board ***within 24 hours*** of the discovery.

   h. Groundwater elevations must be monitored ***at least quarterly***, including the times of expected highest and lowest elevations of the water level for the respective groundwater body.[11] Groundwater elevations must be measured within a period short enough to avoid temporal variations in groundwater elevations.

   i. Groundwater sampling must also include an accurate determination of field parameters of temperature, electrical conductivity, turbidity, and pH, pursuant to CCR title 27, section 20415(e)(13).

[10] CCR title 27, section 20385 through 20430, and 40 CFR, Part 258.58.
[11] In accordance with CCR title 27, section 20415(e)(15).

Table 1 – Groundwater Monitoring Parameters

Monitoring Parameters	Units[12]	Sampling Frequency[13]
pH	pH	Semi-annual
Field Conductivity	µS/cm	Semi-annual
Turbidity	NTU	Semi-annual
Total Dissolved Solids	mg/l	Semi-annual
Chloride	mg/l	Semi-annual
Sulfate	mg/l	Semi-annual
Nitrate as Nitrogen	mg/l	Semi-annual
Appendix I Volatile Organic Compounds	µg/l	Semi-annual
Appendix I Metals	mg/l	Semi-annual

4. **Lab Accreditation.** All analyses must be conducted at a laboratory accredited for such analyses by the State Water Board Division of Drinking Water (DDW), unless otherwise approved by the San Diego Water Board. Any report presenting new analytical data is required to include the complete Laboratory Analytical Report(s).

5. **Laboratory Reporting Requirements.** The Laboratory Analytical Report(s) must contain the following minimum information:

    a. A complete sample analytical report.

    b. A complete laboratory QA/QC report.

    c. A discussion of the sample and QA/QC data.

    d. A properly completed chain of custody form for the analyzed samples.

    e. A transmittal letter, signed by the laboratory director, certifying that:

        i. The laboratory has been accredited by the Environmental Laboratory Accreditation Program (ELAP) and has demonstrated to

[12] Note: mg/l = milligram per liter; µg/1 = micrograms per liter; NTU = Nephelometric turbidity units; µSiem = micro siemens/centimeter.

[13] The San Diego Water Board Executive Officer may increase or decrease the monitoring frequency if determined to be necessary.

DDW ELAP its capacity to analyze environmental samples using approved methods.

ii. All analytical work performed by, or on behalf of, the laboratory was supervised by the laboratory director.

iii. All analytical work performed by the laboratory used the most current methods for the analytes specified in this MRP or Chain of Custody submitted by the Discharger.

f. The Laboratory Analytical Report(s) must be signed by the laboratory director if requested by the San Diego Water Board.

The DMP must specify either an inter-well or intra-well method, or a combination of the two, as the method of analysis of the groundwater monitoring data, depending on which type of analysis is the best fit for site conditions. The method of analysis cannot be changed once implemented without the written approval of the San Diego Water Board.

6. **Establishing Background Values for New COCs.** The Discharger must establish a reference background value in groundwater following the procedures required in the regulations[14] for each 40 CFR part 258 Appendix II (Appendix II) constituent that is added to the Landfill's COC list as described in Part II.G. The Discharger must include the data as a separate item in the next monitoring report submitted once this reference set of background data is collected.

The San Diego Water Board may substitute inorganic surrogates in the Landfill's list of monitoring parameters and include 40 CFR Part 258 Appendix I (Appendix I) metals replaced by surrogates in the Landfill's COC list at the request of the Discharger. The San Diego Water Board will only make this substitution for Appendix I metals detected and verified through the Landfill's leachate monitoring program.

7. **Narrowing the Monitoring List of COCs.** This MRP allows the Discharger to remove COCs that are added to the COC list once detected and verified as part of the Leachate Monitoring or Five-Yearly COC Scan, in Part II.F and Part II.G, respectively. An Appendix II COC added to the COC list signifies a release from the Landfill and may require a corrective action monitoring program. Once the Discharger completes corrective actions to the satisfaction of the Board, the Discharger may designate a previously added COC for removal from the COC list. The COC designated for removal must be

[14] CCR title 27, section 20415, et seq.

undetected or below its respective concentration limit through a successful proof period of at least three years, or six Semi-Annual Groundwater Monitoring Reports, as defined by CCR title 27, section 20430(g) and 40 CFR, part 258(e)(2).

E. SURFACE WATER MONITORING. The SAP must include a surface water monitoring plan compliant with the specific requirements and performance standards found in CCR title 27, section 20415(c), 40 CFR part 258.27, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ and Order WQ 2018-0028-DWQ, NPDES No. CAS000001 (IGP).

1. **Surface Water Monitoring Program Requirements.** The surface water monitoring program must include:

   a. A sufficient number of background monitoring points established at appropriate locations and depths to yield samples from each surface water body that represent the quality of surface water that has not been affected by a release from the Landfill.

   b. A sufficient number of monitoring points established at appropriate locations and depths to yield samples from each surface water body that provide the data to evaluate compliance with the Water Standard and to evaluate the effectiveness of the corrective action program.

2. **Surface Water Monitoring Network.** The Discharger must add additional monitoring points as necessary to supplement monitoring point S-3 located downgradient of the Landfill in the Prima Deshecha Cañada to meet the performance requirements found in CCR title 27, section 20415(c).

3. **Surface Water Monitoring Program Elements**. Surface water monitoring must be conducted semi-annually in the Prima Deshecha Cañada when there is sufficient water to collect a sample to satisfy the requirements of CCR title 27, section 20415(c) and 20420. Surface water samples must be analyzed for the monitoring parameters found in the IGP. Every five years, coincident with the five-year COC scan, the Discharger must analyze surface samples for the constituents listed on the most current COC list. The point of compliance for surface water monitoring must be located on the Prima Deshecha Cañada at the outfall from the desiltation basin for the Landfill.

F. LEACHATE MONITORING. The SAP must include a leachate monitoring plan for identifying the COCs being produced from the Landfill that would likely appear in groundwater should a breach of the liner system of the Landfill occur.

1. **Collection of Leachate Samples.** The Discharger must collect a liquid sample of the leachate from the leachate collection and removal system (LCRS) and analyze the sample for all constituents listed in Appendix II that are not yet on the COC list for the Landfill in September of each year. The COC list must consist of all waste constituents listed in this MRP and include each constituent listed in Appendix II that is not already a COC for the Landfill and that is both:

   a. **Detected in a sample of the Landfill's leachate.**
   The Discharger must submit the analytical results to the San Diego Water Board office no later than ***5:00 pm on October 30***, and include an identification of all detected Appendix II constituents that are not currently on the Landfill's COC list.

   b. **Detected in a retest of a leachate sample collected the following March.**
   The Discharger must sample and analyze this retest sample only in cases where the annual leachate sample identifies non-COCs. The retest sample must be analyzed only for the non-COCs detected in the September sample. The Discharger must submit a report of the results to the San Diego Water Board ***no later than 5:00 pm on April 30*** during any year in which a March leachate retest is conducted. The April 30 report must also include an amended COC list that includes the Appendix II constituents that were newly-detected in both the September and March leachate samples. The revised COC list must be noted in the Landfill's Operating Record within ***14 days***, permanently adding the constituent(s) to the Landfill's COC list. Within ***seven days*** of amending the Landfill's Operating Record pursuant to this section, the Discharger must also provide written notification to the San Diego Water Board indicating that the Discharger has made the amendment.

G. FIVE YEARLY COC SCAN. The SAP must include a Five-Yearly COC Scan[15] to create a "COC List" of constituents present in groundwater at each well. Any unknown peaks on the chromatographs must be reported along with an estimate of the concentration of the unknown analyte(s) as part of a Five-Yearly COC Scan. A second column or second method confirmation procedures must be performed to attempt to identify and more accurately quantify the unknown analyte(s), when unknown peaks are encountered. The Discharger must resample the well and reanalyze the sample for the newly detected constituent(s) if an analyte is detected that is not yet on the COC list ***within 30 days***. All newly detected constituents

[15] The COC scan includes all COCs found in 40 CFR, part 258, Appendix II. Appendix II provides a comprehensive list of analytes that may exist in leachate generated from a landfill.

verified by a retest become part of the COC list for regular detection groundwater monitoring at the Landfill when verified by a retest.

The Discharger must sample nearby surface water bodies as part of the Five-Year COC Report, if those waters could be impacted by a release of waste constituents or waste byproducts from the Landfill. All newly detected constituents must become part of the COC list for regular surface water monitoring at the Landfill when verified by a retest, as described above.

The five-yearly COC sampling and analysis must occur at alternating intervals to account for seasonal variations in the hydrogeology at the Landfill. The Discharger must alternate sampling and analysis between the winter-spring and summer-fall timeframes. The Discharger must report the analytical results of the sampling event as an attachment to the Annual Compliance Report, due ***April 30*** of that same year.

H. SCHEDULE OF ACTIVITIES. The SAP must include a schedule for implementing all the activities described in the various monitoring programs detailed in the plan.

PART III. METHODS OF ANALYSIS

Part III of this MRP provides the requirements for the analysis of detection monitoring data collected from monitoring wells associated with the Landfill. The objective of the DMP is to ensure early detection of a release of waste constituents from the Landfill. The DMP must be able to determine whether the release of a COC has created a measurably significant increase at any given monitoring well to accomplish this objective.

A. DETECTION MODE MONITORING. If COCs have not been detected in groundwater samples collected from a given well, that well will be monitored in "detection mode." In detection mode, the Discharger has the option of using either the "inter-well" or "intra-well" statistical approach when analyzing groundwater data. The inter-well and intra-well approaches are described in the Information Sheet **(Attachment B)**.

B. TRACKING MODE MONITORING. The Discharger must monitor all COCs in a groundwater monitoring well in "tracking mode" when one or more COCs are detected in groundwater samples and there is statistically significant evidence of a release. In tracking mode, the Discharger must analyze COC concentrations in groundwater by plotting the concentrations in groundwater samples collected from a given well over time. The graphical representation of the groundwater data will be used to track trends in COC concentrations over time and assist in evaluating the impacts of COCs on groundwater quality.

C. WATER QUALITY PROTECTION STANDARD. The Landfill is in violation of its water quality protection standard (Water Standard) any time a constituent in a groundwater well monitoring in "detection mode" exhibits a measurably significant increase over the applicable background data set.[16] All groundwater wells monitored in "tracking mode" remain in violation of the Water Standard and subject to corrective action monitoring[17] until completion of a successful proof period of three consecutive years or six consecutive Semi-Annual Groundwater Monitoring Reports.[18] The Water Standard for the Landfill consists of the following components:

1. **Constituents of Concern.** The COCs for the Landfill, including any updates, are listed in Appendix I. Statistical and non-statistical data analysis is limited to only those COCs that are on the current COC list.[19]

2. **Concentration Limits.** For each COC detected in compliance monitoring wells, the Discharger must propose one of the following:

   a. A concentration limit equivalent to the background dataset; or

   b. A concentration limit greater than background, justified through a statistical analysis of the background dataset and other relevant data, and a demonstration that background concentrations would not be technologically or economically feasible for the COCs for a given monitoring well.[20] A concentration limit greater than background will only be considered for COCs present in monitoring wells associated with a corrective action monitoring program.[21]

3. **Compliance Period.** The Landfill's compliance period must include the remaining years of the Landfill's active life and the Landfill's closure period. The Discharger must continue to monitor and maintain the Landfill until the San Diego Water Board determines that the Landfill no longer poses a threat to water quality.[22]

D. VALIDATION OF BACKGROUND DATASETS. The Discharger may need to validate an intra-well background dataset for COCs at an existing well if there have not been enough sampling events at that well to create a background data set, and for each new well installed as part of the DMP. The Discharger must report the

[16] CCR title 27, section 20415(e)(7).
[17] CCR title 27, section 20430(g), and 40 CFR, Part 258.58(e).
[18] CCR title 27, section 20430(g), and 40 CFR, Part 258.58(e).
[19] CCR title 27, section 20395.
[20] CCR title 27, section 20400(c)
[21] CCR title 27, section 20400(h).
[22] CCR title 27, section 20950(a)(2).

validated background dataset, specifying the COCs and monitoring well(s) affected, in the next scheduled monitoring report if the Discharger uses an intra-well approach.

1. **Accelerated Background Data Procurement.** The Discharger must implement the accelerated data procedure prior to initiating the intra-well background dataset validation procedure described below if there are less than ten sampling points for a given COC at any well. Background concentrations for new wells or COCs may be determined by collecting and analyzing samples quarterly from each affected well until there are at least 10 data points. The Discharger must submit an alternative sampling plan to the San Diego Water Board for approval if quarterly sampling would not provide representative data for the site.

2. **Intra-Well Background Validation for New COCs.** A background dataset can be established, and the intra-well analytical approach may be implemented once ten data points are available.

    a. **Commonly Quantified Constituents.** The Discharger must validate the intra-well background data at each compliance well for any COC that, absent the Landfill's existence, would usually be detected in groundwater at concentrations exceeding the COC's PQL. A compliance well's data cannot be used for an intra-well comparison if the constituent's median concentration exceeds the 75th percentile of the pooled data. Inter-well comparisons must be used for these wells. Datasets from a COC whose data's median is less than the pooled background plot's 75th percentile may be used as the initial background dataset for intra-well comparisons for that well or COC.

    b. **Rarely Quantified Constituents.** The Discharger must identify the highest value in the pooled dataset from all background wells that have passed validation or, in a case where all applicable upgradient well data is non-detect, the MDL, for a COC that, absent the Landfill's existence, would seldom be detected in groundwater (e.g., synthetic constituents). The Discharger must use this value as a basis of comparison to validate the data points in the proposed intra-well background dataset. The initial intra-well background dataset for that downgradient well must consist of all data points in the proposed intra-well background dataset that are less than this value.

3. **Validate Upgradient Data for Synthetic Organic Appendix II COCs.** Synthetic organic constituents should not be present at detectable concentrations in groundwater samples collected from background wells. Detections of synthetic organic constituents indicate that the constituent

comes from the Landfill or from another source, or an analytical error. If synthetic organic constituents are detected in more than 10-percent of analyses in background wells, the Discharger must investigate the source of the organic constituents in accordance with the requirements in **Part III.F** of this MRP.

4. **Performance Standards.** All statistical or non-statistical data analysis methods must meet the applicable State and federal requirements.[23]

5. **Regular Retest Method.** Regular retesting is required to validate data that indicates increasing COC concentrations. For wells in detection mode, the Discharger must conduct up to two retests whenever test results signify an increased concentration, to verify the initial data.[24] If the first retest validates the preliminary indication, a second retest must be conducted. A measurably significant increase exists if both retest samples validate the preliminary indication.

6. **Limited Retest Method.** The Discharger may perform the verification procedure only for those COCs that have shown a preliminary indication of a release at that well for that reporting period for any given DMP groundwater monitoring point.

E. CALIFORNIA NON-STATISTICAL DATA ANALYSIS METHOD. The following section describes the California non-statistical data analysis method that the Discharger must use to evaluate and validate detection groundwater monitoring data collected from the Landfill.

1. **Non-statistical Method for Detection Mode COCs Seldom Found in Background.** The Discharger must use this data analysis jointly for each constituent that exceeds its MDL in less than 10-percent of its background dataset. A measurably significant indication of a release occurs in a given sample when:

   a. Two or more of the Detection Mode COCs exceed their respective MDLs; or

   b. One or more of the COCs equals or exceeds its respective PQL.

2. **Discrete Retest.** The Discharger must perform a discrete retest[25] to verify the results[26] if an approved data analysis method provides a preliminary

[23] CCR title 27, section 20415(e)(9) and 40CFR, Part 258.53.
[24] CCR title 27, section 20415(e)(8)(E)(2).
[25] CCR title 27, section 20415(e)(8)(E)(1) et seq.
[26] CCR title 27, section 20415(e)(8)(E).

indication that there has been a measurably significant[27] increase for a COC in a given monitoring well. The Discharger must take the following steps in conducting a retest:

a. The Discharger must notify the San Diego Water Board by phone or e-mail ***within 24-hours*** and must collect a new independent retest sample from the indicating compliance well ***within 60 days*** of the original sampling event.

b. The Discharger must include only the laboratory analytical results for those constituents indicated in that well's original test for the retest sample. The Discharger must apply the same test, for only those COCs with a tentative indication of a release, to separately analyze each of the two suites of retest data at that compliance well, as soon as the retest data is available.

c. If the retest sample also has a measurably significant indication of a release as defined in 1(a) and 1(b) of this section, then there is a measurably significant increase at that well for the constituent(s) indicated in the validating retest sample. Thereafter, the Discharger must monitor all constituents in "tracking mode" instead of "detection mode" at the well and must highlight the conclusion about the measurably significant increase at the well and document the changes to the monitoring program in the next scheduled monitoring report.

F. SYNTHETIC ORGANIC COCS IN BACKGROUND WELLS. An "excessive proportion" of a COC exists when 10-percent or more of the COC data collected from a given background well are reported to have concentrations equal to or greater than the MDL. An "excessive frequency" exists when a COC is reported to have concentrations equal to or greater than the MDL for two consecutive sampling events. The Discharger must notify the San Diego Water Board ***within 30 days*** of the determination that either an "excessive proportion" or "excessive frequency" exists. Furthermore, the Discharger must submit a report to the San Diego Water Board that evaluates whether the COC is from the Landfill and propose appropriate changes to the monitoring program ***within 180 days*** of the determination. Based on the evaluation, if the San Diego Water Board concludes that the organic constituent originated from a source other than the Landfill, then the Discharger must do the following:

1. **Determination of Secondary Source.** The Discharger must make appropriate changes to the monitoring program, such as using an appropriate statistical "inter-well" comparison procedure with a suite of background data

[27] CCR title 27, section 20164.

that reflects the expected concentration for that constituent. The Discharger must complete the following:

a. List the constituent(s) as a COC in the next scheduled monitoring report if it is not already listed and note this change in the Transmittal Letter.

b. Include this background well as part of the release for that COC and monitor this well as a compliance well.

c. Install a new upgradient or cross-gradient background well in a portion of the aquifer that will provide data representative of background conditions for the Landfill's compliance wells ***within 180 days***.

2. **Ongoing Background Well Test.** The Discharger must continue to monitor background wells for each COC each time that COC is monitored at downgradient wells, excluding retests. New background well data must be included in the Annual Compliance Report and included on a time-versus-concentration plot for that "background" well and constituent.[28] Any time such a plot for a given well and constituent shows two successive data points in excess of the MDL for any organic constituent that has not already been investigated at that well, the Discharger must notify the San Diego Water Board ***within 30 days*** of the sampling event by phone or email, and must initiate an investigation ***within 180 days*** of noting this condition, in accordance with **Part III.F** of this MRP.

PART IV. REPORTS TO BE FILED WITH THE SAN DIEGO WATER BOARD

Part IV provides a description of the reports required to be submitted to the San Diego Water Board.

A. GROUNDWATER MONITORING REPORT. The Discharger must submit Groundwater Monitoring Reports to the San Diego Water Board semi-annually, no later than ***April 30 and October 30*** of each year. The Reports must contain, at a minimum, the following information:

1. **Topographic Map.** A topographic map (or copy of an aerial photograph), at an appropriate scale, identifying the maximum lateral extent of wastes in the Landfill, the locations of observation stations, monitoring points, background monitoring points, and the groundwater elevation contours with interpreted groundwater flow direction and gradient. Maps must also be updated to show the maximum extent of any waste constituent or waste degradation product in groundwater.

[28] CCR title 27, section 20415(e)(14).

The information contained on the topographic map must also be provided in a Geographic Information System (GIS) shape file that must be submitted as part of the Detection Groundwater Monitoring Report. The shape file must be polygons and include two Global Positioning Systems (GPS) points for each line of the polygon, with a minimum of 10 points. GIS metadata must also be submitted.

2. **COC List.** A list of COCs for each detection monitoring well/point.

3. **Detection Limits.** Detection limits of laboratory testing and monitoring equipment.

4. **COC Concentrations.** A table containing the concentrations of COCs in samples collected during the reporting period.

5. **Groundwater Elevations.** The method and time of groundwater elevation measurements, a description of the method used to purge the well and collect groundwater samples, and QA/QC procedures used.

6. **Leachate Production.** The total volume of leachate collected each month during the monitoring period and the method of disposal of the leachate (i.e., reused at the Landfill for dust control, sent offsite for treatment).[29]

7. **Field Logs.** Field logs used during well purging and sampling. At a minimum, the field logs should include the following:

    a. The well number.

    b. The sampling date and time.

    c. The method of monitoring field parameters and calibration of equipment used to monitor field parameters.

    d. The purge method. If a pump is used, include the depth of pump placement in each well and the pumping rate.

    e. The purge and sample collection information such as: date each well was purged; well recovery time; method of disposal of the purged water; an estimate of the volume of water purged from each well; the results of all field analyses; depth to groundwater prior to purging, at the conclusion of purging, and when the sample was collected; the method of measuring the water level; and field personnel names and signature.

[29] As required by CCR title 27, section 20340(h)

8. **Graphical Display.** For each downgradient monitoring well and background monitoring well, a graphical display of all the groundwater data collected within at least the previous five calendar years as required by CCR title 27, section 20415(e)(14). Each graph must plot the concentration of one or more constituents on a semi-log scale. The San Diego Water Board may direct the Discharger to carry out a preliminary investigation to determine whether a release is indicated based on observed trends on graphical displays.

9. **Method of Analysis.** Documentation of statistical and non-statistical data analysis at each monitoring well, for those COCs that have not previously been identified in a release at the well.

10. **Background Data**. Updates to the background data set.

11. **Summary of Groundwater Conditions.** A written summary of the monitoring results and any changes to the groundwater monitoring system since the previous Semi-Annual Groundwater Monitoring Report. The written summary must include a discussion of the groundwater flow rate and direction, the appearance of trends or other information that may indicate a potential change in the hydrogeologic conditions beneath and adjacent to the Landfill.

12. **Evaluation of Groundwater Data.** An evaluation of the detection and corrective action groundwater monitoring data analyzed according to the methods described in **Part III** of this MRP, and whether the analysis indicates a release of waste constituents or waste degradation products from the Landfill.

13. **Evaluation of Corrective Actions.** A written summary that includes a discussion and evaluation of the effectiveness of corrective action measures implemented at the site to mitigate the release of waste constituents from the Landfill.

14. **Data Tables.** All data obtained during the current and previous four semi-annual reporting periods presented in tabular form. Any electronic files submitted to the San Diego Water Board in accordance with Order No. R9-2025-0006 and this MRP, must not be password protected.

15. **Site Inspections.** A copy of any site inspection report produced by the Discharger, the LEA, or the San Diego Water Board. Inspection reports may be included as an appendix to the Semi-Annual Groundwater Monitoring Report.

B. ANNUAL COMPLIANCE REPORT. The Discharger must submit[30] an Annual Compliance Report comprised of the DMP, surface water monitoring program, and the landfill gas monitoring program data collected during the past year, and evaluations of that data. The Annual Compliance Report, covering the previous monitoring and reporting year, must be received by the San Diego Water Board no later than ***5:00 p.m. on April 30*** of each year, and must contain the following minimum information:

1. **Sampling and Analysis Plan.** Include the current version of the SAP as an attachment or appendix.

2. **Topographic Map.** Include a topographic map or copy of an aerial photograph, at an appropriate scale, identifying all the surface water and groundwater monitoring points, background monitoring points, the groundwater elevation contours with interpreted groundwater flow direction and gradient. Maps must also be updated to show the maximum extent of any waste constituent or waste degradation product in groundwater.

3. **Semi-Annual Groundwater Monitoring Report.** Include the Semi-Annual Groundwater Monitoring Report due annually on ***April 30***. This report may be submitted as an attachment to the Annual Compliance Report.

4. **Summary of Groundwater Monitoring Report.** Include a written summary of the groundwater monitoring results from both DMP wells and any corrective action monitoring wells, indicating any changes made or observed since the previous Annual Compliance Report. Additionally, all analytical data obtained during the previous two six-month reporting periods must be presented in tabular form.

5. **Graphical Display.** Include a graphical display for all data collected within at least the previous five calendar years for each monitoring point and background monitoring point.[31] Each graph must plot the concentration of one or more constituents over time for a given monitoring point. For any given constituent, the scale for all plots should be the same semi-log plot to facilitate comparison and identification of trends. The San Diego Water Board may direct the Discharger to carry out a preliminary investigation, in accordance with **Part III.F** of this MRP, to determine whether a release is indicated based on the presence of outliers noted in the plotted data. Trend analyses must include the identification of current trends, a comparison to

[30] By upload in electronic file format to the State Water Board's GeoTracker database, or any future database that replaces GeoTracker. Alternatively, the Discharger may email the files to the San Diego Water Board.

[31] CCR title 27, section 20415(e)(14).

previously identified trends, and a discussion of any significant changes in the trends. Trend analyses must be prepared for groundwater, surface water, seeps, springs, and any vadose zone monitoring points including subdrains, lysimeters, or landfill gas.

6. **Surface Water Monitoring Data Summary.** Include a Surface Water Monitoring Data Summary consisting of all surface water data collected during the past year.[32] The Surface Water Monitoring Data Summary must also contain a brief discussion of the findings and observations made during the past year regarding surface water sampling, and any recommendations concerning future modifications to the surface water monitoring system.

7. **Leachate Data Summary.** Include a Leachate Data Summary consisting of the monthly total volume of leachate collected during the reporting year, from the LCRS and any other leachate collection systems, to demonstrate the effectiveness of the leachate collection and removal system. The Leachate Data Summary must contain a brief discussion of the leachate sampling results and volume produced and how the leachate was disposed of during the reporting period. The Leachate Data Summary must also include a table consisting of the last five years of leachate data collected at the Landfill.

8. **Sludge Wastes Data Summary.** Include a Sludge Wastes Data Summary with a monthly tabulation of all sludge waste data collected during the reporting period, including the specific sources of sludge wastes, the weight in tons, and composition/types of sludge wastes[33] discharged at the Landfill. The Sludge Wastes Data Summary must also include a discussion that includes confirmation that the primary and secondary sludge wastes and mixtures of primary / secondary sludges, and water treatment sludge, met the minimum moisture content and ratio of solids-to-liquids by weight, required by Order No. R9-2025-0006 and CCR title 27. The Sludge Wastes Data Summary must also include a table that reports weight in tons of sludge wastes discharged at the Landfill.

9. **Dredged Sediments Summary.** Include a Dredged Sediments Summary consisting of a monthly tabulation of all dredged sediment discharges and associated data collected during the reporting period, including the specific source(s) of dredged sediments, the weight in tons, volume in cubic yards of

[32] Surface water monitoring data includes surface water samples collected as part of a CAP or in compliance with the IGP.

[33] Sludge wastes include dewatered sludge, dewatered sewage or water treatment sludge, including primary sludge, secondary sludge, mixtures of primary and secondary sludges, or water treatment sludge, grit and bar screen wastes. https://www3.epa.gov/npdes/pubs/final_sgrit_removal.pdf

dredged sediments accepted, and the results of moisture content analyses. The Dredged Sediments Summary must also include a written confirmation and a certification statement, which ensures the dredged sediments meet the non-hazardous waste classification and moisture content criteria for disposal at the Landfill.

10. **Annual Waste Acceptance Summary.** Include an Annual Waste Acceptance Summary consisting of the monthly total volume in cubic yards and weight in tons of waste accepted at the Landfill. The summary must contain a table that lists each category of waste (i.e., MSW, sludge, contaminated soils, biosolids, etc.) and the volume accepted at the Landfill each month during the reporting period. Further, the Annual Waste Acceptance Summary must identify the sources of non-MSW waste streams (i.e., sludges, sediments, biosolids, grit, etc.) discharged at the Landfill during the reporting period.

11. **Landfill Gas Data Summary.** Include a Landfill Gas Data Summary consisting of all landfill gas data collected during the past year in accordance with the requirements set forth by the Department of Resources Recycling and Recovery and the Local Enforcement Agency. The Landfill Gas Data Summary must also contain a brief discussion of the findings and observations made during the past year regarding landfill gas production, migration, and/or any issues with the landfill gas monitoring system noted during the previous year.

12. **Site Conditions Summary.** Include a Site Conditions Summary consisting of a comprehensive discussion regarding the condition of the Landfill, including, but not limited to:

    a. The current operational area,

    b. Any interim or final cover areas,

    c. Any excavation and construction areas,

    d. The stockpile, composting, and/or materials recycling areas,

    e. The maintenance roads,

    f. The desiltation and detention basins,

    g. The erosion and drainage control measures implemented to control run-on and run-off during the rainy season; and

h. The condition of monitoring wells, piezometers, landfill gas probes, seismic monitoring points, and any other monitoring device located at the Landfill.

The discussion should also highlight any areas of noncompliance observed and repaired during the previous year and should be documented with photographs and inspection reports.

13. **Compliance Summary.** Include a comprehensive discussion of the compliance record, and of any corrective actions taken or planned which may be needed to bring the Discharger info full compliance with Order No. R9-2025-0006 or this MRP.

C. OTHER REPORTS TO BE FILED. The following reports must be submitted to the San Diego Water Board, in addition to the Semi-Annual Groundwater Monitoring Reports and Annual Compliance Report, as described below.

1. **Slope Stability Monitoring Workplan.** The Discharger must submit a workplan for the design, implementation, and reporting of results from a slope stability monitoring program for each lateral or vertical expansion of the Landfill that includes waste fill over landslide deposits. The Discharger must submit a Slope Stability Monitoring Workplan for review and consideration by the San Diego Water Board ***within 30 days*** of completion of construction of a new Phase. The Discharger must receive written concurrence from San Diego Water Board staff prior to implementation of the Workplan.

2. **Slope Stability Monitoring Report.** The Discharger must conduct slope stability monitoring through a combination of inclinometers and permanent surface monuments to measure the displacement and/or movement on slopes with landslide deposit mitigation for each lateral or vertical expansion of the Landfill. The Discharger submit the Slope Stability Monitoring Report semi-annually to the San Diego Water Board no later than ***5:00 p.m. on April 30 and October 30***.

3. **Leachate Monitoring Report.** Leachate sampling must be completed each September, and the sampling data must be provided in a report that includes an identification of all detected Appendix II constituents that are not on the Landfill's COC list. The Discharger must submit the leachate monitoring report to the San Diego Water Board no later than ***5:00 p.m. on October 30***.

For leachate sampling requiring a retest, a report must be received by the San Diego Water Board office no later than ***5:00 p.m. on April 30*** of the following calendar year. This report must identify all constituents that were detected in both the previous calendar year's September sample and in the

March retest sample and must add these constituents to the Landfill's COC list, and for at least two years, must also add them to the monitoring parameter list. The report must also include an updated COC list that includes the Appendix II constituents that are newly detected in both the September and March leachate samples.

4. **Five Year COC Reports.** Every five years, the Discharger must complete a COC analysis on groundwater and surface water samples to update and verify the COC list included in the semi-annual monitoring reports. The COC analysis must include all COCs found in Appendix II. The next COC Report must be received no later than ***5:00 p.m. on April 30, 2030***. Subsequent COC reports must be submitted every fifth year, as an attachment to the Annual Compliance Report.

5. **Violation Reports.** If the Discharger determines there has been a violation of any requirements in this MRP, then the Discharger must notify the San Diego Water Board office by phone ***within 24 hours*** once the Discharger has knowledge of the violation. The San Diego Water Board may, depending on the severity of the violation, require the Dischargers to submit a separate technical report regarding the violation ***within five working days*** of the request of the San Diego Water Board.

6. **Significant Maintenance Activity Work Plan.** The Discharger must submit a workplan for Staff review and concurrence prior to any significant maintenance activities that could alter the existing surface drainage patterns or change existing slope configurations. These activities may include importing and stockpiling fill materials, the design and installation of soil borings or groundwater monitoring wells, construction of stormwater conveyance features, and other devices used for site investigation or monitoring purposes. Unless otherwise directed by San Diego Water Board staff, the Discharger may initiate the activities proposed in the workplan ***30 days*** after the San Diego Water Board received the workplan for review and consideration.

7. **Post Rain Inspection Reports.** The Discharger must submit a Post-Rain Inspection Report ***within 48 hours*** of a rain event with a cumulative rainfall of 1-inch or greater over a 72-hour period. The Post-Rain Inspection Report must include the date(s) of the rain event, how much precipitation was received each day of the rain event, a narrative describing where run-off was captured, the quality and effectiveness of BMPs, and any erosion, ponding, or exposed wastes observed during the inspection. The Post-Rain Inspection Report must also include photographs of the detention basin, BMPs, top deck, side slopes, and any areas where damage is observed during the inspection.

8. **Post-Seismic Event Inspection Report.** The Discharger must submit a Post-Seismic Event Inspection Report ***within seven days*** of a seismic event strong enough to be felt or recorded at the Landfill, to document site conditions. The Discharger may request an extension to submit the written report from the San Diego Water Board Executive Officer, should the site be inaccessible or severely damaged following the seismic event. The Post-Seismic Event Inspection Report must include the date(s) of the seismic event, the details of the seismic event including magnitude, fault line, epicenter, distance to the site, and any other details available regarding the event. The Post-Seismic Event Inspection Report must also include a detailed description of any damage sustained by containment structures; monitoring systems including wells, probes, mainlines and headers; detention basins; leachate tanks; condensate tanks; ancillary features; stockpiles; access roads; the flare station; or any mass movement or slope failure on outer slopes, waste slopes, or within landslide deposits. The Discharger must include photographs documenting site conditions and an annotated map documenting the locations of any damage sustained during or after the seismic event.

9. **Notification of Noncompliance.** The Discharger must notify the San Diego Water Board either orally or via email, ***within 24-hours*** of discovering any of the following conditions at the Landfill:

    a. **Endangerment of Human Health or the Environment**. The Discharger must report any noncompliance which may endanger human health or the environment.

    b. **Damage from Construction Activities**. The Discharger must any instances of damage caused by construction activities to the liner system, cover system, LCRS, landfill gas system, or stormwater conveyance features at existing or new construction areas. Construction activities may include liner repairs, liner and waste removal activities, liner construction activities, and blasting conducted to prepare an area for construction.

    c. **Damage from Natural Causes.** The Discharger must report any instances of damage to the liner system, cover system, LCRS, monitoring systems, or stormwater conveyance features, from natural causes including seismic events, storm events, or fires. This damage includes washout from storm events, landslides, slope creep, stress cracks or fissures, ground rupture, sinkholes, subsidence, liquefaction, ponding, exposed waste, melted monitoring systems, explosions, and uncontrolled venting of landfill gas.

d. **Slope Failure or Seismic Displacement.** The Discharger must report any slope failure or seismic displacement that threatens the integrity of the liner system, cover system, LCRS, monitoring systems, or structures that control surface drainage or erosion, and/or stormwater conveyance systems.

e. **Seepage from the Landfill.** The Discharger must report the discovery of any previously unreported seepage from the Landfill.

f. **Leachate Production Increases.** The Discharger must report a progressive increase in leachate generated at the Landfill and collected in the LCRS tanks, leachate generation at or over 85-percent capacity of the LCRS, or an increase in the volume of fluid in any unsaturated zone monitoring system, pursuant to CCR title 27, section 21710(c)(3).

g. **Leachate and Landfill Gas Condensate Release.** The Discharger must report any release of leachate from the LCRS or landfill gas condensate from the landfill gas capture system.

h. **Exposed Wastes.** The Discharger must ***immediately*** cover any exposed waste discovered at the Landfill.

i. **High Heat Events.** The Discharger must report temperature readings of 145°F or greater in perimeter landfill gas probes, or if a temperature reading of 170°F is measured in any area of the Landfill. Following notification, the Discharger must provide weekly updates to the San Diego Water Board that include a discussion of any actions taken to reduce temperature readings and investigate the cause of the elevated temperatures in the affected area.

j. **Post-Rain and Seismic Event Noncompliance.** The Discharger must report significant maintenance issues discovered during post-rain inspection reports and post-seismic event inspection reports, including ponding, erosion, and damage to containment systems or stormwater conveyance systems.

k. **Petroleum Spills.** The Discharger must report any discharges of petroleum products from above ground or underground storage tanks, vehicles, or heavy machinery used for construction or operation of the Landfill, to land, surface water, groundwater, or stormwater conveyance systems.

10. **Emergency Response.** The Discharger must submit an Emergency Response ***within 48-hours***, in writing, documenting the immediate steps

taken to (1) stop the release; (2) cover wastes; (3) stabilize slopes; (4) repair damage; (5) reduce leachate generation; (6) mitigate a high heat event, and/or address the noncompliance issues listed above and described in the Notification of Noncompliance.

11. **Emergency Response Work Plan**. The Discharger must submit an Emergency Response Work Plan ***within seven days*** of either discovering an area of noncompliance, or in response to a staff enforcement letter or notice of violation issued by the San Diego Water Board. The Emergency Response Work Plan must include (1) a description of the noncompliance issues and its cause; (2) the period of noncompliance, including exact dates and time; (3) the steps necessary to investigate and evaluate the cause of the noncompliance; (4) the steps planned, or design or operational changes needed, to reduce, eliminate, or prevent recurrence of the noncompliance; (5) a map documenting the location(s) of the noncompliance; (6) the methods of analysis proposed for sampling, if applicable; (7) and a time schedule for completion of these steps. The Discharger must receive written concurrence from San Diego Water Board staff prior to implementation of the Work Plan. The Discharger may submit a written request to the San Diego Water Board Executive Officer for an extension to submit the Emergency Response Work Plan should the site be inaccessible or severely damaged.

12. **Emergency Response Report.** The Discharger must submit an Emergency Response Report to the San Diego Water Board ***within two weeks*** of completing the steps proposed in the Emergency Response Work Plan. The Emergency Response Report must outline the Discharger's actions taken or operations changes implemented prevent immediate impacts to human health and the environment, and also to reduce, eliminate, or prevent recurrence of the noncompliance at the Landfill.

D. REPORTING SCHEDULE

Reports must be received in the San Diego Water Board office ***no later than 5:00 p.m***. on the due date shown in the following table:

Report Type	Report Frequency	Reporting Period	Report Due Date
First Sampling and Analysis Plan[A]	N/A	N/A	March 11, 2025
Semi-Annual Groundwater Monitoring Report	Semi-Annual	October – March	April 30
Semi-Annual Groundwater Monitoring Report	Semi-Annual	April – September	October 30
Slope Stability Monitoring Workplan	N/A	N/A	Within 30 days of completion of construction of a new Phase.
Semi-Annual Slope Stability Monitoring Report	Semi-Annual	October – March	April 30
Semi-Annual Slope Stability Monitoring Report	Semi-Annual	April – September	October 30
Annual Compliance Report	Annual	April – March	April 30
Leachate Monitoring Report	Annual	October – September	October 30
Leachate Retest Monitoring Report[B]	Annual	March	April 30
Groundwater COC Report	Every Five Years	June 1 – September 30, or October 1 – April 30	April 30[C]
Surface Water COC Report	Every Five Years	October 1 – March 30, or April 1 – September 30	April 30[D]

Revised JTD and Design Plans	Periodic	N/A	At least 120 days prior to the commencement of construction of a new phase
Construction Quality Assurance Report	Periodic	N/A	Upon completion of each stage of construction, expansion, or closure

[A] Subsequent SAPs must be submitted as an attachment to the Annual Compliance Report.
[B] As necessary, based on the results of the Annual Leachate Monitoring.
[C] The Discharger's next five-year Groundwater COC Report is due April 30, 2030. COC list data must be collected in alternating seasons to account for seasonal variations. For example, if the previous COC sampling event occurred in the wet season (October 1 – April 30), the next COC sampling event should occur in the dry season (June 1 – September 30).
[D] The Discharger's next five-year Surface Water COC Report is due April 30, 2030. COC list data must be collected in alternating seasons to account for seasonal variations. For example, if the previous COC sampling event occurred in the wet season (October 1 – April 30), the next COC sampling event should occur in the dry season (June 1 – September 30).

E. STANDARD REPORTING REQUIREMENTS. Standardized protocols for reporting are discussed below. There are protocols for submission procedures, use of licensed professionals, electronic data submission, and transmittal letters.

1. **Submission Procedures.** The Discharger must submit all reports required under this MRP in a text-searchable, electronic, Portable Document Format (PDF). Larger documents must be divided into separate files at logical places in the report to keep the file sizes under 150 megabytes. The Discharger must provide a paper copy of all figures larger than 8.5 inches by 14 inches to the San Diego Water Board. All correspondence and documents submitted to the San Diego Water Board must include the reference code "Site Restoration and Waste Management Unit Supervisor" in the header or subject line, where "Site Restoration and Waste Management Unit Supervisor" is the first initial and last name of the San Diego Water Board case manager. If the Discharger has any questions regarding the submittal of electronic data files, contact the San Diego Water Board's Mission Support Services Unit at (619) 516-1990.

2. **Use of Licensed Professionals.** Pursuant to CCR title 27, section 21710(d), any report submitted in compliance with CCR title 27, and this Order, which

proposes a design or design change that might affect the Landfill's containment features or monitoring systems, must be approved by a civil engineer or a certified engineering geologist appropriately licensed by the State of California. The Discharger must provide documentation that indicates all plans and reports required under this MRP are prepared by or under the direction of appropriately qualified professionals. CCR title 27, sections 20324(b), 20415(e)(1) and (e)(2), and 21090(b)(1)(C); and the California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of licensed professionals. A statement of qualifications and license numbers of the responsible lead professionals must be included in all plans and reports submitted by the Dischargers. The lead professional must sign and affix their license stamp to the report, plan, or document.

3. **Electronic Data Submittals.** The State's Electronic Reporting Regulations[34] mandate the electronic submission of any report or data, required by a regulatory agency for any discharge of waste to land subject to CCR title 27. All information submitted to the San Diego Water Board in compliance with this MRP is also required to be submitted electronically via the internet into the GeoTracker database at http://geotracker.waterboards.ca.gov/. The electronic data must be uploaded on or prior to the regulatory due dates set forth in this MRP or addenda thereto. To comply with CCR title 23, section 3893(b), the Discharger must upload into the GeoTracker database, the following information:

   a. **Laboratory Analytical Data.** Analytical data (including geochemical data) for all soil, vapor, and water samples in Electronic Deliverable File (EDF) format.[35] Water, soil, and vapor data including analytical results of samples collected from monitoring wells, boreholes, LFG probes, LFG extraction wells, soil vapor wells, piezometers, surface water, stockpiles, and drinking water wells, if applicable.

   b. **Location Data.** The latitude and longitude of any permanent monitoring well for which data is reported in EDF format, accurate to within one meter and referenced to a minimum of two reference points from the California Reference System (SCRSH), if available.

   c. **Monitoring Well Elevation Data.** The surveyed elevation relative to a geodetic datum of any permanent monitoring well. Elevation

[34] CCR title 23, chapter 30, division 3, section 3890 et seq.
[35] See GeoTracker database: http://www.swrcb.ca.gov/water_issues/programs/ust/electronic_submittal/docs/edf_gr_v1_2i.pdf.

measurements must be made at the top of groundwater well casings for all detection groundwater monitoring wells.

d. **Depth-to-Water Data.** The depth-to-water in monitoring wells even if groundwater samples are not actually collected during the sampling event.

e. **Monitoring Well Screen Intervals.** The depth to the top of the screened interval and the length of screened interval for any permanent monitoring well.

f. **Landfill Map.** A map or maps which display discharge locations, streets bordering the Landfill, and sampling locations for all soil, water, and vapor samples. The sample map is a stand-alone document that may be submitted in various electronic formats. An updated map may be submitted at any time.

g. **Boring Logs.** Boring logs, as searchable PDF documents, prepared by an appropriately licensed professional.

h. **Electronic Report.** A complete, searchable PDF copy of all Joint Technical Documents, technical reports, workplans, CQA Reports, plans, and monitoring reports, including the signed transmittal letter, professional certifications, and all data presented in the reports.

4. **Transmittal Letter.** A letter summarizing the significant findings must be submitted with each report. The transmittal letter must also include the following minimum information:

a. **Summary of Non-Compliance.** A summary of any areas of non-compliance with this MRP or Order No. R9-2025-0006, incurred during the reporting period. The summary may include verbal and written notices of violations from State and local regulatory agencies regarding monitoring and/or maintenance deficiencies or violations noted by the Discharger, such as the exceedance of Water Quality Protection Standards, failure to conduct monitoring as required by this MRP or Order No. R9-2025-0006.

b. **Certification Statement.** The person signing the transmittal letter must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the I information submitted. Based on my inquiry of the person

or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations."

c. **Signatory Designation**. All documents submitted to the San Diego Water Board must be signed by either a principle executive officer or ranking elected official, or by a duly authorized representative of the Discharger. An individual is a duly authorized representative only if:

i. The authorization is made in writing by an authorized representative of the Discharger.

ii. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated Landfill or activity.

iii. The authorization is submitted in writing to the San Diego Water Board.

The Discharger must submit to the San Diego Water Board ***within 30 days*** of adoption of this MRP, an updated signatory designation, identifying those persons authorized to sign reports.

PART V. CONTINGENCY REPORTING

In the event the Discharger discovers a release from the Landfill, the Discharger must notify the San Diego Water Board within the timeframes listed below.

A. NOTIFICATION OF A RELEASE. Should the Discharger discover a release to groundwater from the Landfill, the Discharger must:

1. Notify the San Diego Water Board by phone or e-mail ***within 24-hours***, and by mail ***within seven days*** when the Discharger determines from groundwater monitoring results that there is significant physical evidence of a release.

2. Notify the San Diego Water Board by phone or e-mail ***within 30 days*** of a sampling event when the Discharger determines that there is preliminary indication of a release. The Discharger must provide written notification by certified mail ***within seven days*** of the initial notification and conduct a retest.

B. EVALUATION OF A RELEASE. If the Discharger determines that a release from the Landfill has occurred, the following actions must be taken:

1. The Discharger must sample for all COCs at all monitoring wells in both the detection and corrective action groundwater monitoring networks, if applicable, and submit the samples for analysis ***within 30 days*** of the determination that the release is not based upon direct monitoring of the COCs. The Discharger must notify the San Diego Water Board by certified mail, of the concentrations of all COCs at each monitoring point sampled ***within seven days*** of receiving the laboratory analytical results. Because this scan is not to be statistically tested against background, only a single datum is required for each COC at each monitoring well.

2. The Discharger must submit an Amended Report of Waste Discharge (ROWD) proposing an Evaluation Monitoring Program that meets the requirements of CCR title 27, sections 20415(b)(2), 20420(k)(5), and 20425 et seq., ***within 90 days*** of determining there is measurably significant evidence of a release. The Discharger must receive concurrence from San Diego Water Board staff prior to implementation of the evaluation monitoring program.

3. The Discharger must, ***within 180 days*** of discovering the release, submit to the San Diego Water Board a preliminary engineering feasibility study report to the San Diego Water Board that meets the requirements of CCR title 27, section 20420(k)(6). The Discharger must receive concurrence from San Diego Water Board staff prior to implementing the preferred remedial alternative identified in the engineering feasibility study report.

C. NOTIFCATION AND EVAULATION OF EXCESSIVE LEACHATE PRODUCTION
The Discharger must report significant increases in leachate production from the Landfill. A significant increase is defined by an increase of leachate production exceeding three times the production rate of the previous month. When a significant increase in leachate production is identified, the Discharger must:

1. Notify the San Diego Water Board by phone or email ***within 24-hours***, and by mail ***within seven days***, when the Discharger determines there has been a significant increase in the production of leachate.

2. Cease the use of leachate for onsite dust control, operations water, or any other purpose that adds leachate back into the lined areas of the Landfill ***within 24-hours*** of the Discharger's determination that there is evidence of a significant increase in leachate production. All leachate produced after determination of a significant increase has been made, must be containerized or sent offsite for treatment until the source of the increase in leachate has

been identified and the San Diego Water Board agrees that it is appropriate to reuse leachate at the Landfill.

3. Submit an Amended ROWD ***within 90 days*** of the Discharger's determination that there is evidence of a significant increase in leachate production. The Amended ROWD must include a technical evaluation that identified the source(s) of the increase in leachate production and potential adverse impacts to the Landfill's waste containment, LCRS, and landfill gas detection/removal systems. The Amended ROWD must propose corrective actions and highlight a preferred alternative for addressing the impacts to the containment, LCRS, and landfill gas detection/removal systems, as needed. The Discharger must receive concurrence from San Diego Water Board staff prior to initiating corrective actions in response to an increase in leachate production.

D. RELEASE BEYOND THE FACILITY BOUNDARY. If the Discharger determines that a release has been discovered to extend beyond the facility boundary, the Discharger must:

1. Develop a Public Participation Plan and submit it for review and comment by the San Diego Water Board ***within 90 days*** of determining that a release extends beyond the facility boundary.

2. Provide notification of the release to all affected persons (i.e., individuals, and private and public entities) who either own or occupy property that overlies the release. The initial notification must include a description of the Discharger's current knowledge of the nature and extent of the release.

3. Provide updates to all affected persons.

4. Provide the San Diego Water Board a copy of the current mailing list of affected persons and copies of the notification and updates ***within seven days*** of sending such notifications.

PART VI. NOTIFICATIONS

The San Diego Water Board hereby notifies the Discharger of the following information.

A. ENFORCEMENT DISCRETION. The San Diego Water Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this MRP.

B. STATE WATER BOARD ADMINISTRATIVE REVIEW. Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320, and CCR title 23,

California Code of Regulations, section 2050. The petition must be received by the State Water Board (Office of Chief Counsel, P.O. Box 100, Sacramento, CA 95812) ***within 30 days*** of the date of adoption of this MRP. Copies of the law and regulations applicable to filing petitions will be provided upon request.

C. DELEGATION OF AUTHORITY. The San Diego Water Board has delegated to the Executive Officer by resolution, all the powers and authority that may be delegated pursuant to Water Code section 13223. The San Diego Water Board intends for the Executive Officer to make modifications or revisions when appropriate, to this MRP. The Board further directed the Executive Officer to exercise discretion in determining whether proposed modifications and revisions should be considered for approval by the Board.

ATTACHMENT B

INFORMATION SHEET FOR

ORDER NO. R9-2025-0006 WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING PRIMA DESHECHA ZONE 4 LANDFILL ORANGE COUNTY

This Information Sheet includes the legal requirements and technical rationale that serve as the basis for the waste discharge requirements (WDRs) and monitoring and reporting program (MRP, **Attachment A**) in Order No. R9-2025-0006 (Order).

The Order establishes design requirements for the construction and expansion of waste containment, and wastewater management structures associated with the development of the Prima Deshecha Zone 4 Landfill (Landfill). The Order also establishes WDRs for the operation, monitoring, and maintenance of the Landfill. The Landfill is a Class III non-hazardous, municipal solid waste (MSW) landfill subject to both State and federal regulations.[1]

The Prima Deshecha Landfill complex property straddles the boundary between the cities of San Juan Capistrano and San Clemente (Figure 1). The property is divided into five zones, identified as Zones 1 through 5, and encompasses approximately 1,530 acres. Zones 1 and 4 collectively encompass 680-acres, which are designated for waste disposal operations. The remaining Zones 2, 3, and 5 are designated for open space and wildlife habitat.

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) has regulated the waste disposal operations at the Prima Deshecha Landfill complex property since 1972, beginning with the issuance of Order No. 72-04 to the County of Orange for the Prima Deshecha Zone 1 Landfill (Zone 1).[2] The Zone 1 waste disposal footprint fully encompasses an unlined, pre-regulation landfill, identified as Waste Management Unit 1. The remaining Zone 1 waste disposal footprint is constructed with a liner and leachate collection and removal system. Zone 1 reached its full lateral expansion footprint in 2023 with the construction of Phase D2 and is anticipated to reach full waste capacity in approximately 2050.

Orange County Waste and Recycling (Discharger) proposes to construct a new 409-acre landfill in Zone 4 of the Prima Deshecha Landfill complex (Figure 2). The Landfill will allow the Discharger to meet the waste disposal needs of Orange County residents until 2102, and to address nuisance conditions reported by neighbors during Santa Ana

[1] MSW Landfills in California are subject to California Code of Regulations (CCR) title 27 and Code of Federal Regulations (CFR) title 40.

[2] Order No. 72-04, *Waste Discharge Requirements for the Prima Deshecha Canada Sanitary Landfill.*

Winds.[3] The Landfill is located on the east side of Avenida La Pata (Figure 1), farther away from residences impacted by odors and dust produced during Santa Ana Winds. The Discharger plans to develop the Landfill in nine phases, as shown in Figure 2. The phases and associated acreages are: Phase A – 64 acres; Phase B – 50 acres; Phase C – 89 acres; Phase D – 63 acres; Phase E – 21 acres; Phase F – 46 acres; Phase G – 18 acres; Phase H – 27 acres; Phase I – 12 acres.[4]

Future lateral expansion of the Landfill will partially overlap the footprint of Waste Management Unit 2 (WMU-2), a pre-CCR title 27 landfill on the Prima Deshecha Landfill complex property (Figure 2). The Discharger closed WMU-2 in 1980 with an unlined footprint of 26.42 acres. The San Diego Water Board regulates WMU-2 through Order No. R9-2012-0001.[5] The Joint Technical Document (JTD) indicates that during future lateral expansions of the Landfill, WMU-2 will be clean closed, and a portion of WMU-2 will be incorporated into the Landfill waste footprint. The remaining portion of WMU-2 is located outside of the Landfill footprint and will therefore be backfilled with clean fill materials. The Discharger will be eligible to terminate the enrollment of WMU-2 in Order No. R9-2012-0001[6] once clean closure and backfilling activities are complete.

A. GEOLOGY AND HYDROLOGY OF THE SITE

The geologic and hydrologic characteristics of the site that are pertinent to the findings and requirements of this Order are described below.

1. **Geologic Setting and Hazards.** The Landfill is underlain by the following lithologies:

    a. Capistrano Formation - is pale gray to pale greenish gray to bluish gray, poorly consolidated, massive to thinly bedded gypsiferous siltstones, claystones, and shales.

[3] Santa Ana Winds occur when air flows from a high pressure region (i.e., over the dry, desert region of the southwestern United States) to a low pressure region (i.e., over the California coast). These winds are typically strong and create dry and warm conditions.

[4] The acreages associated with each proposed phase of development may be modified over time to accommodate changing site conditions.

[5] Order No. R9-2012-0001, *General Waste Discharge Requirements for the Maintenance and Monitoring of Closed, Abandoned, or Inactive Nonhazardous Solid Waste Units within the San Diego Region*, adopted June 13, 2012.

[6] Or any order adopted by the San Diego Water Board or California State Water Resources Control Board (State Water Board) in the future that supersedes Order R9-2012-0001.

b. Monterey Formation - is white to gray and light brown, laminated to thinly bedded siltstones, shales, claystones, and sandstones.

c. San Onofre Breccia - is light gray to reddish-brown, well to poorly cemented, well graded, very coarse, generally massive conglomerate of sub-rounded clasts. The clasts range from pebble size to blocks up to 15-feet in diameter and consist of assorted metamorphic rocks.

The Landfill is impacted by significant geologic hazards, including earthquakes and landslides, as described below:

a. Cristianitos Fault - is located approximately 500 feet east of the Landfill.

b. Forster Fault – is a branch of the Cristianitos Fault and crosses through the center of the Landfill. There is no evidence that the fault splays from the Cristianitos Fault, including the Forster Fault, are seismically active.

c. Newport-Inglewood Fault - is located approximately 8 miles north of the Landfill and is the source of the magnitude 7.5 maximum credible earthquake used as the design earthquake for the Landfill.

d. Weathered zones of the Capistrano and Monterey formations - are demonstrably weaker, more fractured, and less competent than the unweathered bedrock, and are prone to slope failures. The predominant bedding orientation of the Monterey formation requires monitoring during excavation to prevent planar failure along the proposed Phase A cut slopes. Landslide deposits are common throughout the property and primarily involve slope failures of the Capistrano and Monterey formations. Two large landslide complexes, known as Landslide A and Landslide C, will only be partially removed during construction of the Landfill and will require remedial design to meet the slope stability requirements of CCR title 27.

e. Landslide A – is an approximate 35-acre landslide complex, located in the northwestern portion of the Landfill. Landslide A extends to a depth of up to 100 feet below ground surface. To mitigate the landslide and establish a stable subgrade for the development of Phase A, a buttress will be constructed across the excavated head scarp of Landslide A. The buttress, constructed of engineered fill, will be approximately 840-feet long and 60-feet deep. The complete removal of Landslide A is constrained by the property boundary along the northern portion of the Landfill.

f. Landslide C - is a 150-acre landslide complex, located in the southwestern portion of the Landfill. Landslide C extends to a depth of up to 300 feet below ground surface. To mitigate the landslide and establish a stable subgrade for development of the Landfill, a shear key will be constructed across the

downgradient toe of the landslide. The proposed design dimensions for the shear key are an engineered earthen structure 1,000 feet wide, approximately 2,000 feet long, extending to a depth of 150 feet below grade surface. The purpose of the shear key is to substantially increase the resisting forces on the landslide deposits that will remain in place after mass excavation, and to increase the overall stability in this part of the Landfill.

2. **Local Hydrology and Groundwater Use.** Groundwater at the Prima Deshecha Landfill complex property occurs primarily in the Capistrano and Monterey formations, the San Onofre Breccia, landslide deposits, and alluvium where present in the canyons. Groundwater flows intermittently to the ground surface through springs and seeps in the alluvial deposits along the Prima Deshecha Cañada Canyon. The overall direction of groundwater flow at the Landfill is to the southwest towards the Pacific Ocean. There is one groundwater supply well located within a one-mile radius of the Prima Deshecha Landfill complex property. The supply well is 0.5 miles west of Zone 1 and over a mile from Zone 4 and reportedly abandoned. There has not been a detectable release of waste constituents from the Prima Deshecha property to groundwater in its operational history.

B. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order and MRP are based on State statutes, regulations, applicable federal regulations,[7] and authorities described in this section.

1. **Legal Authorities**. This Order and MRP are issued pursuant to the Porter-Cologne Water Quality Control Act (Water Code) commencing with section 13000, and all applicable portions of CCR titles 23 and 27, the applicable provisions of the Health and Safety Code, division 20, chapter 6.5 (Hazardous Waste Control), and the Code of Federal Regulations (CFR) title 40, Part 258.

2. **Water Quality Control Plans.** The *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed in the plan. The beneficial uses of groundwater designated for the San Clemente Hydrologic Area (901.31) of the San Juan Hydrologic Unit are municipal and domestic supply and agricultural supply. The beneficial uses for surface waters in the San Clemente Hydrologic Area are agricultural supply, non-contact water recreation, wildlife habitat, and preservation of rare and endangered species.

   The Landfill is comprised of lined waste management units, which may produce leachate and landfill gas with the potential to degrade water quality and impact

[7] CFR, title 40, part 258.

beneficial uses. The Order implements the Basin Plan by prescribing waste discharge requirements for Landfill design, expansion, maintenance, and monitoring. The Discharger's adherence to these requirements will ensure that municipal solid wastes accepted at the landfill, and pollutants produced from the degradation of the waste, will not impair beneficial uses of groundwater or surface waters or result in violations of water quality objectives. This Order also implements applicable requirements of CCR title 27 and 40 CFR for active municipal solid waste landfills.

3. **California Environmental Quality Act.** The discretionary decision to issue WDRs is a project under the California Environmental Quality Act (CEQA).[8] As lead agency for the Landfill, Orange County filed a Notice of Determination dated November 6, 2001, for Environmental Impact Report (EIR) No. 575, *2001 Prima Deshecha General Development Plan* (GDP), and its first amendment. The Discharger filed the Final Environmental Impact Report (FEIR) for the second amendment to the GDP on June 19, 2007, and a third amendment to the GDP was approved by the County of Orange on January 14, 2021. The Discharger filed the Second Supplemental Environmental Impact Report (SSEIR) to FEIR No. 575[9] on January 22, 2022, for construction of the Prima Deshecha Zone 4 Landfill as the fourth amendment to the GDP. The San Diego Water Board is a responsible agency under CEQA. As such, the San Diego Water Board has reviewed and considered the SSEIR and FEIR and the project's environmental effects as described therein.

   Zone 4 is relatively undisturbed wildlife habitat with natural geologic features and surface water bodies. The EIR and SSEIR contain mitigation measures for the Landfill construction that the Discharger proposed to account for the loss of habitat and ground surface disturbances. The San Diego Water Board has reviewed the mitigation measures in the EIR and SSEIR and determined[10] the measures to be sufficient. Below is a brief summary of the mitigation efforts within the San Diego Water Board's regulatory jurisdiction:

   a. The Discharger proposed[11] to replace the impacted needlegrass grassland and impacted coastal sage scrub at a 1:1 ratio, survey for impacted wildlife species, and refrain from any clearing and grubbing during nesting season as among the mitigation measure for biological resources. Zone 4 construction will permanently impact 2.23 acres of wetland waters, riparian waters, and streambed waters of the United States and/or State.

[8] Public Resources Code section 21000 et seq.
[9] State Clearing House Number 1999041035.
[10] 2001 Prima Deshecha General Development Plan (ca.gov)
[11] *Mitigation Monitoring and Reporting Program, EIR No. 575, Prima Deshecha General Development Plan, Landfill Component*.

b. The Discharger has proposed[12] to mitigate the surface water impacts by establishing 20.51 acres of wetland establishment and rehabilitation at the Trabuco Creek Long-Term Protection Management Plan Area, within the O'Neil Regional Park in Southern Orange County. The Discharger will complete the compensatory mitigation at a minimum ratio of 9.2:1 of areas mitigated to areas impacted.

c. The Discharger is required to enroll and comply with *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order WQ 2022-0057-DWQ, NPDES No. CAS000002* (CGP) and *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ and Order WQ 2018-0028- DWQ, NPDES No. CAS000001 (IGP)*. Compliance with the CGP and IGP requires the Discharger to adopt a Stormwater Pollution Prevention Plan, use of stormwater conveyance systems, and install best management practices. The CGP and IGP enrollments serve as mitigation for impacts to stormwater during construction and operation of the Landfill.

d. The Discharger has proposed[13] to mitigate the geological impacts from excavation, blasting, and construction of the Landfill through the landslide remediation features described in the JTD submitted by the Discharger and ***Landfill Construction Standards and Specifications G.14*** of this Order The Discharger has proposed to mitigate impacts to groundwater through construction of liner and wastewater collection systems protective of water quality and by compliance with the MRP (**Attachment A**).

4. **Antidegradation Policy.** The Basin Plan implements and incorporates by reference both the State and federal antidegradation policies. As discussed below, this Order is consistent with the antidegradation policy.

5. **Solid Waste Diversion.** The San Diego Water Board supports the implementation efforts of the California Department of Resources Recycling and Recovery (CalRecycle) to decrease the volume of wastes sent to landfills for disposal throughout the State. The Public Resources Code includes the California Integrated Waste Management Act (CIWMA), which was amended in 2011, to increase the required percentage of solid waste diverted from landfills by the year

[12] Clean Water Act Section 401 Water Quality Certification No. R9-2020-0031, issued by the San Diego Water Board on March 16, 2020, for the Prima Deshecha Landfill Zone 4 Expansion Project.

[13] SSEIR to FEIR No. 575, Table A, mitigation measures for geology, seismicity, soils, and groundwater.

2020 and annually thereafter. As discussed below, this WDR is consistent with the mandates included in amendments to the Public Resources Code and the CIWMA.

6. **Short-Lived Climate Pollutants: Organic.** The San Diego Water Board supports the implementation efforts of the California Air Resources Board to reduce emission levels of short-lived climate pollutants. Senate Bill 1383 establishes targets of 50 percent reduction in the level of statewide organic waste disposal from the 2014 level by 2020 and increases this reduction requirement to 75 percent of the 2014 level by 2025. As discussed below, this WDR is consistent with the requirements of SB 1383 through a co-located composting facility on the Prima Deshecha property that will accept organic waste for diversion from the Landfill.

C. COMPLIANCE WITH THE ANTIDEGRADATION POLICY

The State Water Board established California's Antidegradation Policy in Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California.* Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. All disposal of waste into waters of the State is required to be regulated to achieve the highest water quality with the maximum benefit to the people of the State. The Antidegradation Policy requires that higher quality water will be maintained until it has been demonstrated to the State that:

- Any change will be consistent with the maximum benefit to the people of the State,
- Will not unreasonably affect present and anticipated beneficial use of the water; and
- Will not result in water quality less than that prescribed in the Basin Plan.

This Order is consistent with the Antidegradation policy because it requires construction of a composite liner, leachate collection and removal system (LCRS), and stormwater collection and conveyance system to protect groundwater and surface water beneficial uses. The Discharger is also required to design and implement groundwater, surface water, and landfill gas monitoring programs to monitor potential impacts to human health and the environment. The composite liner and LCRS are designed to prevent any further degradation of groundwater beyond what has occurred historically.

D. COMPLIANCE WITH CALIFORNIA PUBLIC RESOURCES CODE FOR SOLID WASTE DIVERSION

The State has statutory diversion targets for active landfills that are enforced by CalRecycle. The San Diego Water Board has no authority to enforce these diversion targets in this Order. The following discussion is for informational purposes only.

For nearly three decades, cities and counties within California have worked to reduce the municipal solid waste stream sent to active landfills for disposal. The CIWMA mandated that each city or county develop a plan that resulted in a 25-percent diversion

of solid wastes by 1995, and a 50-percent diversion of wastes by 2000.[14] This diversion was to be accomplished through source reduction, recycling, composting, or through other means (i.e. anaerobic digesters, chipping and grinding operations, etc.). The mandate to reduce the disposal of solid waste into landfills resulted in curbside recycling for millions of California residents. Landfill owners and operators also utilized green waste materials as alternative daily cover, replacing soil materials and tarps with green wastes which are biodegradable. This process results in more air space for the landfill, lowering the need for the use of soils as daily cover.

Section 41780.01, added to the Public Resources Code in 2011, increased the waste diversion goals from 50-percent to 75-percent by 2020 and annually thereafter. The State and Regional Water Boards are working cooperatively with CalRecycle to support the efforts to reach California's diversion goals and to ensure that conflicting goals and mandates don't impede those efforts. The State Water Board issued Order WQ-2015-0121-DWQ, *General Waste Discharge Requirements for Composting Operations,* in 2015,[15] later amended by Order WQ-2020-0012-DWQ, *General Waste Discharge Requirements for Commercial Composting Operations*, in 2020[16] (Composting General Order), to support the diversion goals through streamlining the permitting process for composting operations. This statewide Composting General Order includes requirements for composting operations for specific materials including siting, design, operations, stormwater management, monitoring, and reporting requirements.

Additionally, the State Water Board and Regional Water Boards have a vested interest in staying informed of CalRecycle's mandates as well as the measures implemented or proposed to meet the diversion goals. While the solid waste Local Enforcement Agencies (LEAs) regulate the day-to-day operations at landfills, the Regional Water Boards provide discharge specifications in WDRs that restrict the types of special wastes (i.e., treated wood, auto shredder wastes, contaminated soils, sludge, etc.) that may be disposed of at a landfill. The Regional Water Boards also regulate other activities that may be undertaken at landfills including composting, chip and grind operations, materials recovery facilities (MRFs), anaerobic digesters, etc. that may be employed by landfill owners and operators to meet the diversion goals mandated by CalRecycle. To this end, staff have encouraged owners and operators of active landfills within the Region to begin a discussion with CalRecycle and the San Diego Water Board so that WDRs may be developed that provide the Discharger with the necessary specifications to implement appropriate actions at the Landfill to address the mandated 75-percent diversion requirement. This can include identifying areas at the facility for separation of compostable material from the incoming waste stream, making plans to

[14] Public Resources Code section 41730 et seq.
[15] Order WQ-2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations.
[16] Order WQ-2020-0012-DWQ, General Waste Discharge Requirements for Commercial Composting Operations.

compost on a closed cell, expanding the existing chip and grind operation, development of a MRF, etc. The Discharger operates the Capistrano Greenery, a composting facility located within the Zone 1 footprint on the Prima Deshecha Landfill complex. The Capistrano Greenery provides an on-site diversion method for organic waste.

E. RATIONALE FOR DISCHARGE PROHIBITIONS

Water Code section 13243 provides that a Regional Water Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste are prohibited. The Basin Plan waste discharge prohibitions are applicable to any person, as defined by section 13050(c) of the Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the State within the boundaries of the San Diego Region. The Discharge Prohibitions listed in **Section B** of this Order are based upon the waste discharge prohibitions established in the Basin Plan (*Implementation, Chapter 4*).

F. RATIONALE FOR EXCAVATION AND STOCKPILING REQUIREMENTS

Excavation is required to prepare the Landfill site for construction of future refuse disposal areas. The Discharger estimates the total volume of excavated material required for Landfill development to be 39.5 million cubic yards (mcy). These materials consist of, from greatest to least by volume, the Monterey Formation, San Onofre Breccia, landslide deposits comprised of undifferentiated Capistrano Formation, landslide deposits comprised of undifferentiated Monterey Formation, Capistrano Formation, and quaternary alluvium. The Discharger will use an estimated 3.7 mcy for compacted fills and 9.0 mcy of San Onofre Breccia for various uses on and offsite, resulting in a net excavation volume of approximately 26.8 mcy. The maximum depth of excavation for the Landfill is approximately 245 feet below the existing ground surface. The Discharger must perform excavation activities for the development of Phase A, future lateral expansions, and the necessary ancillary facilities, in accordance with technical specifications approved by San Diego Water Board staff. Staff approved the technical specifications for Phase A as part of the JTD. The Order requires the Discharger to submit technical specifications for Staff approval prior to performing any excavation activities for future expansion of the waste disposal footprint. The Discharger plans to conduct blasting to remove approximately 10 mcy of San Onofre Breccia, a hard bedrock formation, during future phases of Landfill expansion and development. The Discharger must submit a blasting and management plan to the San Diego Water Board for Staff approval prior to conducting any blasting activities.

For development of Phase A, the Discharger proposes to store San Onofre Breccia material in one stockpile south of Phase A area and store the remaining excavated materials in stockpiles of unclassified fill east of Phase A and in the Zone 1 area. The Discharger intends to use the majority of excavated materials for daily cover and

compacted fills for each phase, thereby minimizing the required area for stockpiled excavated material.

G. RATIONALE FOR LINER DESIGN REQUIRMENTS

The liner systems for the Landfill meet the performance standards and requirements prescribed in 40 CFR and CCR title 27 and meet the applicable State and federal requirements for containment systems at Class III landfills.[17] The Discharger's use of base liner system design will depend on the hydraulic conductivity of the underlying soils, while the slope liner system will be consistent throughout the site.

The base liner system will be comprised of the following elements, from bottom to top, if the hydraulic conductivity of the underlying soils is less than or equal to 1×10^{-7} centimeters per second (cm/sec):

- A prepared foundation.
- A subdrain system consisting of a geocomposite layer and a series of 6-inch perforated high density polyethylene (HDPE) subdrain header pipes wrapped in an 8-ounce nonwoven geotextile.
- A minimum 12-inch thick compacted, low-permeability soil layer with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.
- An 80-mil HDPE geomembrane textured on both sides.
- A 12-ounce nonwoven cushion geotextile layer.
- A minimum 9-inch thick LCRS gravel layer with a dendritic array of header collection pipes.
- An 8-ounce nonwoven filter geotextile layer.
- A minimum 27-inch thick protective cover soil (PCS) layer.

The alternative base liner system will be comprised of the following elements, from bottom to top, if the hydraulic conductivity of the underlying soils is greater than to 1×10^{-7} cm/sec:

- A prepared foundation.

[17] CCR, title 27, section 20330 and CFR, title 40, part 258.

- A subdrain system consisting of a geocomposite layer and a series of 6-inch perforated high density polyethylene (HDPE) subdrain header pipes wrapped in an 8-ounce nonwoven geotextile.
- A 24-inch thick compacted, low-permeability soil layer with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.
- An 80-mil HDPE geomembrane textured on both sides.
- A 16-ounce nonwoven cushion geotextile layer.
- A minimum 9-inch thick LCRS gravel layer.
- An 8-ounce nonwoven filter geotextile layer.
- A minimum 27-inch thick PCS layer.

The side slope liner system is composed of the following elements from bottom to top:

- A prepared foundation.
- A subdrain system consisting of a geocomposite drainage layer and piping, where required.
- A minimum 24-inch thick layer of low-permeability soil with a hydraulic conductivity less than or equal to 1×10^{-7} cm/sec.
- An 80-mil single-sided textured geomembrane with textured side down.
- A 16-ounce nonwoven cushion geotextile layer.
- A system of gravel drains along the benches.
- A minimum 36-inch thick PCS layer.

The side slope liner system is similar to the base liner system except for a system of gravel drains rather than a 9-inch thick gravel layer and collection pipes LCRS layer. Side slope liner systems typically cannot support this type of leachate collection and removal system and therefore, these layers are omitted from side slope liner systems. Leachate, when formed, will flow via gravity towards the base liner system, where it will be collected and transmitted out of the landfill and into the leachate sumps located downgradient of the waste prism.

H. RATIONALE FOR DESIGN SPECIFICATIONS

The United States Environmental Protection Agency (USEPA) promulgated federal regulations that apply to dischargers who own or operate landfills that accept, have previously accepted, or will continue to accept non-hazardous wastes on or after October 9, 1991. The federal regulations, referred to as 40 CFR,[18] implement the statutory requirements of Subtitle D of the Resource Conservation and Recovery Act (RCRA), and obligate dischargers of new or expanding landfills to construct a liner system to contain wastes and protect the environment.[19] The 40 CFR requirements establish the minimum federal criteria for the siting, design, operation, and closure of municipal solid waste (MSW) landfills. These federal regulations apply to the entire waste containment system, including liners, leachate collection and management systems, and surface water control systems. 40 CFR provides the prescriptive design criteria for a composite liner system, consisting of an upper and lower component, and a leachate collection system. A 40 CFR composite liner system requires a lower component comprised of at least two feet of compacted soils with a hydraulic conductivity of 1×10^{-7} cm/sec or less, and an upper component consisting of a flexible membrane liner. The USEPA required that each State implement the federal MSW landfill regulations. States were given the authority to approve engineered alternatives to the prescriptive standards contained in 40 CFR, if the alternative meets all applicable conditions and performance standards found in the federal regulations. The design and construction specifications in this Order derived from the JTD are consistent with the siting, design, and operational criteria found in both State and federal regulations and include wetlands protection[20] and seismic considerations.[21]

I. RATIONALE FOR CLIMATE CHANGE IMPACT MITIGATION

This Order requires the Discharger to re-evaluate 100-year, 24-hour storm events every five years to account for variations in the frequency and intensity of storm events due to climate change. The Discharger's design and sizing of detention basins and stormwater conveyance features is based on the most recent calculation of a 100-year, 24-hour storm event. As the calculation of the event is based on past data, the impacts from climate change may not be realized and accounted for in a one-time calculation at the time the Discharger designs the stormwater conveyance system. The Order's re-evaluation requirement every five years ensures the stormwater conveyance system is

[18] CFR, title 40, part 258.
[19] The federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), authorized the development of nationwide standards for municipal solid waste disposal sites.
[20] Wetland protection is a required consideration for siting, including the expansion of landfills, found in 40 CFR, Part 258.12.
[21] Slope stability requirements are found in CCR, title 27, section 21750(f)(5).

appropriately sized to manage increases in rainfall due to more frequent and intense storm events.

This Order also requires the Discharger to construct a subdrain beneath the base and side slope liner systems throughout the Landfill. CCR title 27, section 20240(c) requires containment systems to be constructed with a minimum vertical separation of five feet from the highest anticipated historical groundwater elevation. Potential impacts due to climate change within just the last decade include consecutive years of drought followed by consecutive years of intense storm seasons. These patterns may result in unanticipated changes in groundwater elevations not accounted for in the initial design and construction of containment systems. The addition of a subdrain will reduce the potential for groundwater to compromise the integrity of the containment structures. Should the subdrain alone not maintain the five feet of vertical separation between groundwater and the base liner system, the Discharger will be required to de-water the perched aquifer to maintain the separation and prevent pore pressures from rising beyond the design limits. Unmitigated rises in pore pressures can induce failures in slopes and containment systems, given the Landfill's geologic setting and hazards described in section B above.

J. RATIONALE FOR PROVISIONS

The standard provisions contain language that allows the San Diego Water Board to enforce this Order. Provisions include the need for inspections, implementation of corrective actions, monitoring and maintaining the Landfill property or real property located adjacent to the Landfill. Standard provisions apply to all WDRs and are consistent with San Diego Water Board findings. Special provisions that apply to landfills are derived from CCR title 27.

K. RATIONALE FOR FINANCIAL ASSURANCE REQUIREMENTS

State law requires operating landfills to provide financial assurance mechanisms for costs associated with closure, post-closure maintenance, and corrective actions. The Discharger provided proof of financial assurances to the San Diego Water Board in the form of a series of bonds for closure activities, post-closure monitoring and maintenance, and implementation of corrective action in response to a release of waste constituents from the Landfill. This information was submitted as part of the JTD,[22] and meets the requirements of CCR title 27, section 22205.

CalRecycle will regulate the Landfill through issuance of a Solid Waste Facility Permit (SWFP) from the Local Enforcement Agency and required the Discharger to provide financial assurances for Non-Water Corrective Actions in accordance with CCR title 27, section 22221. The amount of financial assurances necessary to cover the costs associated with non-water corrective actions exceeds the amount needed to implement

[22] Final Joint Technical Document for Prima Deshecha Landfill, June 15, 2023.

water-based corrective actions. Therefore, the financial assurances names CalRecycle as the beneficiary in accordance with CCR title 27 section 22221(c). However, CalRecycle only issues permits for the operation of a Landfill. Therefore, once the Landfill closes, financial assurance mechanisms will need to be modified to name the San Diego Water Board as the beneficiary for the purposes of implementing corrective actions or post-closure maintenance in the event the Discharger is unwilling or unable to do so.

The Discharger has estimated in 2023 that the cost to implement closure at the Landfill will be approximately $50,932,000. This estimate includes, but is not limited to, costs associated with the construction of the final cover system, and installation of erosion and drainage control systems. The Order requires the Discharger to update, as necessary, financial assurance estimates to account for inflation and ensure that adequate funds are available to cover the costs associated with closure and post-closure activities. The Discharger estimates that annual post-closure maintenance and monitoring costs will be approximately $52,361,000 over the course of a minimum of 30 years. Annual post-closure maintenance and monitoring costs include, but are not limited to, maintaining grading of the final cover to promote sheet flow and positive drainage to stormwater control features; maintaining groundwater, surface water, and landfill gas monitoring equipment; maintenance, repair, and implementation of best management practices in preparation for the rainy season and throughout year; and general site maintenance.

L. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

When a Regional Water Board determines that groundwater or surface water monitoring is necessary to evaluate impacts or potential impacts from landfill wastes, dischargers are required to implement one of the monitoring programs outlined in the regulations.[23] The Monitoring and Reporting Program (**MRP, Attachment A**) requires the Discharger to conduct a detection monitoring program.

The MRP requires the Discharger to furnish certain technical and monitoring program reports to demonstrate compliance with the WDRs in the Order. The San Diego Water Board's authority to require submission of the reports is found in both Water Code section 13267 and in CCR title 27. Water Code section 13267 provides that the San Diego Water Board may require the Discharger to furnish technical or monitoring reports, provided that the burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring these reports, the San Diego Water Board must provide the person with a written explanation regarding the need for the reports and must identify the evidence that supports requiring that person to provide the report. Based on the nature and possible consequences of the discharge as described in the following sections, the

[23] CCR title 27, section 20385 – Required Programs.

burden of providing the required reports, including the costs which are estimated to be between $100,000 to $250,000, bears a reasonable relationship to the need for the reports, and the benefits to be obtained from the reports.

1. **Basis for Detection Groundwater and Surface Water Monitoring.** Regional Water Boards are authorized by CCR title 27, section 20080(d) to issue monitoring and reporting requirements to landfills if site conditions indicate that impairments or potential impairments to water quality and/or beneficial uses may be caused by a landfill. The MRP requires the Discharger to implement groundwater and surface water monitoring programs designed provide the earliest possible detection of subsequent releases from the Landfill (Detection Monitoring).[24] The monitoring programs prescribe a standard set of monitoring and reporting requirements consistent with CCR title 27, sections 20385, 20415, and 20420 et seq. Results of the groundwater monitoring programs must be provided in the semi-annual groundwater monitoring reports.

   The detection monitoring program requires dischargers to have a sufficient number of wells, including background and compliance monitoring wells, to evaluate the quality of water up-gradient and downgradient of a landfill. The Discharger has the discretion to determine how many wells are necessary to provide adequate groundwater monitoring information to make this evaluation. An adequate monitoring program includes both background and compliance monitoring wells. The following descriptions apply to the two types of monitoring wells:

   a. Background monitoring wells are located up-gradient or cross-gradient from a landfill and are used to evaluate the quality of water outside the area of influence of the Landfill that are unlikely to be impacted by a release to groundwater from the Landfill. Background monitoring wells are installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represents the quality of water that has not been impacted by a release from the Landfill.

   b. Compliance monitoring wells are used to detect constituents of concern (COCs) as they leave the Landfill and enter the groundwater aquifer. The data collected from these wells are used to provide early detection of a release of waste constituents or track the concentrations of those constituents over time. Compliance monitoring wells are placed at locations immediately downgradient of the Landfill to detect a release of waste constituents (release) as soon as it occurs. Similar to background monitoring wells, compliance monitoring wells are installed at depths to yield groundwater samples from the uppermost aquifer. Some of the compliance wells at the Landfill may be located within the pollutant plume from a release from the Landfill. Should a release from the Landfill occur, the Discharger may need to

[24] CCR title 27, section 20415(b) – Groundwater Monitoring Systems.

install additional compliance monitoring wells to further delineate the pollutants and assess impacts to water quality and beneficial uses of groundwater downgradient of the Landfill. The Discharger may also need to install additional up-gradient or cross-gradient background wells to provide representative background data for the Landfill's compliance wells should an excessive portion of synthetic COCs be detected in existing background wells. This Order requires the Discharger to install any necessary new background wells within 120 days, which is 30 days beyond the 90 days the Discharger is required to delineate the release as required by CCR title 27, section 20425.

The Discharger may propose to implement one of two statistical approaches for the long-term detection of any release(s) of waste from the Landfill. These two approaches are known as an Intra-Well Analysis and an Inter-Well Analysis.

An intra-well analysis compares groundwater data collected from a given well to historical groundwater data collected at that same well for the previous two-year timeframe. This method of analysis minimizes the adverse effects of geographic and hydrogeographic variation at the Landfill, thereby reducing the likelihood of a false positive indication of a release. If an intra-well analysis method is used for detection mode monitoring, then prediction limits will be used to establish a range of concentrations for monitoring parameters, within which future groundwater monitoring data should fall. These prediction limits will be used to evaluate if there is a statistically significant change in concentration of monitoring parameters in groundwater. Every two years, Dischargers may retire the COCs oldest two years of background data points, thereby creating a background dataset that is representative of current and recent groundwater conditions at the Landfill.

An inter-well analysis compares groundwater data collected from background wells with groundwater data collected from compliance wells to determine whether there is statistical evidence of a release from the Landfill. This approach may be affected by variability in groundwater quality due to geographic and hydrogeographic conditions and may result in higher frequencies of false indications of a release. Therefore, Dischargers should use caution when choosing to implement this type of groundwater data analysis.

2. **Basis for Landfill Gas Monitoring.** The Discharger is required to comply with the requirements prescribed by the County of Orange Solid Waste LEA for oversight of the landfill gas monitoring system and program. Title 27 gives the authority for oversight of landfill gas monitoring and systems to CalRecycle and its assigned LEAs. The MRP requires the Discharger to report the results from the landfill gas monitoring in the Annual Summary Compliance report, if landfill gas data is proposed for use to satisfy the requirements for vadose zone monitoring.

3. **Basis for Slope Stability Monitoring.** The site geology includes numerous seismic hazards including fault traces and several large, historic landslides. The presence of landslides within the marine geologic lithologies, combined with a seismically active region, present geologic hazards and the potential for damage to the Landfill's containment structures. The landslide deposits and surface evidence of slope failures qualify the Landfill as being in a geologically unstable area[25] characterized by rapid geologic change.[26] The Discharger has proposed to excavate the landslides except for those materials that fall outside the boundary of the landfill property, or those that must remain in place for design and engineering purposes. The initial phase, Phase A, and the southern section of Zone 4, Phase C and subsequent phases, will be underlain by landslide deposits.[27] The MRP requires the Discharger to monitor slope stability of each waste management unit underlain by landslide deposits and report the results annually in the Slope Stability Monitoring Report. Slope stability monitoring is necessary to ensure that the integrity of containment structures is not adversely impacted by reactivation of the landslide deposits left in place, by seismic events or blasting of the San Onofre Breccia.

M. RATIONALE FOR SPECIAL WASTE ACCEPTANCE

The Discharger has determined the special wastes listed below are compatible with the containment systems at the Landfill and with the waste acceptance requirements for a Class III nonhazardous landfill. This Order allows the Discharger to accept the following special wastes at the Landfill so long as the acceptance is compliant with the requirements of **Attachment C**:

- Treated Wood Waste[28]
- Dewatered Sludge[29]
- Dredged Sediments[30]
- Nonhazardous Contaminated Soils[31]

In accordance with the requirements of the Order, the Discharger may propose to reuse leachate and landfill gas condensate generated at the Landfill for dust suppression. The

[25] As defined in 40 CFR, section 258.15.
[26] As defined in CCR, title 27, section 20260.
[27] In the approved 2023 Joint Technical Document, Zone 4 Phase A will be over Landslide A, while Phase C and later expansion phases will be over Landslide C.
[28] In accordance with the requirements of California Health and Safety Code, section 25230 et seq.
[29] In accordance with the requirements of CFR, title 40, part 258.2 and only in waste management units with a liner system and LCRS complaint with the requirements set forth in CCR title 27, section 20330 et seq. and 20340 et seq.
[30] In accordance with the requirements of CCR title 27, 20200(c) and (d)(3).
[31] Nonhazardous contaminated soils, pursuant to CCR title 22, Division 4.5.

reuse and application of leachate and landfill gas condensate must be limited to lined waste management units with an installed and operational LCRS. Only leachate and landfill gas condensate generated from Zone 4 may be reused at the Landfill.

The Discharger is required to ensure that the acceptance of special wastes, including dredged sediments and dewatered sludge, is appropriate and will not threaten the integrity of the containment and waste management systems. The integrity of containment systems may come into question if the waste disposal practices are inconsistent with the design specifications of the containment structures. For example, the LCRS can become overwhelmed if waste streams regularly accepted for disposal contain a higher volume of liquids than the system was designed to manage. Subsequently, as the volume of leachate increases, so too does the weight and pressure on the landfill liner system. Therefore, the Discharger is required to ensure that the acceptance of dredged sediments or dewatered sludge materials is compatible with, and will not threaten the integrity of, the containment structures and waste management systems. Under CCR title 27, section 20220(b) and (c), dischargers are required to determine the solids-to-liquid ratio of moisture content of wet wastes (i.e., dredged sediments), and the percentage of solids in dewatered sludge. Information regarding these criteria is essential to ensure that waste streams accepted for disposal do not cause an exceedance of the moisture holding capacity of the Landfill. In accordance with this section of the regulations, dischargers are prohibited from accepting and discharging liquids or semi-solid wastes at Class III landfills. The exception is the acceptance of dewatered sewage or water treatment sludge, and dewatered sediments that meet the waste acceptance criteria for the Landfill. Therefore, the San Diego Water Board requires the Discharger to provide the testing requirements and waste acceptance criteria proposed for use, or currently used, to demonstrate that dredged sediments and dewatered sludge are appropriate for acceptance and compatible with the containment systems at the Landfill.

The Discharger is also required to ensure that contaminated soils accepted for disposal or for use as daily cover are classified as nonhazardous pursuant to CCR title 22, Division 4.5, and compatible with the containment systems at the Landfill. Therefore, the Discharger must ensure that contaminated soils accepted at the Landfill do not contain constituents of concern at concentrations that would produce leachate, could chemically react with other wastes, cause corrosion of the containment structures and systems, or ignite wastes within the waste prism.

N. RATIONALE FOR CO-LOCATED CHIPPING AND GRINDING OPERATIONS

Chipping and grinding operations are used by landfill operators throughout the State to meet the organic waste diversion requirements set forth by CalRecycle in the Public Resources Code. Chipping and grinding is the process of mechanically reducing wood or other compostable material to produce mulch, which is considered a beneficially reusable product. Chipping and grinding operations are regulated by the local

enforcement agencies through the issuance of a solid waste facility permit by CalRecycle.

The San Diego Water Board is prescribing additional requirements for chipping and griding operations co-located over the waste footprint at active landfills. The intent of the additional requirements is to ensure that these operations, including the stockpiling of feedstocks, the generation of wastewater during the chipping and grinding of green waste materials, and the storage of the finished product, does not adversely impact the underlying waste footprint, groundwater, or surface water quality. In addition, the requirements found in **Attachment D** to the Order, require the removal of the mulch derived from chipping and grinding activities within seven days to prevent the biological and chemical decomposition of these waste streams and the production of compost.

The requirements also require the Discharger to designate an area for the chipping and grinding operations that is outside the active waste disposal operations area at the Landfill. The designated area should have its own entrance and exit that does not interfere with the Landfill operations, and best management practices to control stormwater run-on and runoff. The Discharger may use signs to direct green material haulers to the designated area at the Landfill.

O. RATIONALE FOR CO-LOCATED COMPOST OPERATIONS

Composting is the process by which organic materials biologically decompose through microbial ingestion under controlled aerobic conditions to create a beneficial final product. Compostable materials include a variety of materials such as grass, leaves, branches, wood waste, agricultural materials, manure, food, and biosolids. Compostable materials may contain nutrients, metals, salts, pathogens, and oxygen-reducing compounds that can degrade water quality if not properly managed and if the working surface is not designed to prevent infiltration of wastewater into the subsurface and groundwater.

Composting operations within the San Diego Region are regulated under the Composting General Order. The Composting General Order provides waste discharge requirements for a consistent, statewide approach to regulating composting operations. Requirements include specifications for allowable feedstocks, working surface designs, monitoring systems, surface impoundments used to manage wastewater, and overall site maintenance. The specifications are intended to composting operations located over native materials and allow Water Board discretion to require more stringent siting and design criteria to ensure water quality is protected.

The San Diego Water Board is prescribing additional requirements for composting operations co-located over the waste footprint at active landfills. The intent of the additional requirements is to ensure that composting operations, including wastewater generated during the production of compost, does not adversely impact the underlying waste footprint, groundwater, or surface water.

Composting operations generate wastewater when precipitation falls on, or percolates through, stockpiled feedstocks, additives, amendments, or compost piles and discharges to land. Compost operations with poorly designed, constructed, or maintained working surfaces may allow wastewater to infiltrate into the underlying landfill cover and waste prism, which may increase landfill leachate and gas production. Additionally, if the landfill waste prism is unlined, the infiltration of wastewater may impair groundwater quality.

Attachment E provides additional siting, working surface, and stormwater management requirements for composting operation co-located over landfill waste footprints, and allows the Discharger to propose an engineered alternative that meets the requirements of both **Attachment E** and the Composting General Order. The Discharger is required to design and manage a co-located compost operation in a manner that does not adversely impact the waste containment and collection systems, and that is protective of water quality.

P. RATIONALE FOR CO-LOCATED MATERIAL RECOVERY OPERATIONS

Material recovery operations are used by landfill operators throughout the State to meet the recyclable material diversion requirements set forth by CalRecycle in the Public Resources Code. Material recovery operations, through material recovery facilities (MRFs), is the process of mechanically and/or manually separating recyclable material from a waste stream and preparing the recyclable material for beneficial reuse. MRFs are regulated by the local enforcement agencies through the issuance of a solid waste facility permit by CalRecycle.

The San Diego Water Board is prescribing additional requirements for MRFs that would be co-located with active landfills, both over native soils and within the waste footprint. The intent of the additional requirements is to ensure that MRF operations do not adversely impact groundwater quality, surface water quality, or the underlying waste prism and waste containment systems. In addition, the requirements found in **Attachment F** of the Order require the Discharger to designate an area for the material recovery operations and facilities that is outside of the active waste disposal operations area at the Landfill. The designated area is required to have its own entrance and exit that does not interfere with the Landfill operations, and best management practices to control stormwater run-on and runoff.

The requirements also the Discharger to conduct regular inspections of the designated area and MRF to ensure the operations do not create or threaten to create conditions of contamination, pollution, or nuisance and, if located over a waste management unit, to identify any damage or repair needs of the underlying interim or final cover systems.

Q. RATIONALE FOR NOTIFICATIONS

Notifications are included in the Order to inform the Discharger of administrative issues regarding this Order.

R. OTHER PERMITS REQUIRED

The Landfill is subject to additional permits from the San Diego Water Board and other agencies. These permits consist of, at a minimum, the San Diego Water Board's Clean Water Act Section 401 Water Quality Certification;[32] U.S. Army Corps of Engineers Clean Water Act Section 404 Certification;[33] the State Water Board's IGP; the County of San Diego Air Pollution Control District's Air Operating Title V Permit; the County of Orange LEA's Solid Waste Facility Permit.

S. PRACTICAL VISION

The issuance of this Order establishing requirements for the development and expansion of the Landfill is consistent with the goal to provide water resources protection, enhancement and restoration while balancing economic and environmental impacts as stated in the Practical Vision of the San Diego Water Board.[34] The Order implements the goal of the Practical Vision to maintain healthy waters in the San Diego Region by establishing proper management, disposal, and long-term containment of solid wastes into the landfill, ensuring protection of groundwater and surface water quality.

T. PUBLIC PARTICIPATION

Two of the four values embraced by the San Diego Water Board in its Practical Vision are communication and transparency. Public participation in the decision-making process of the Board is a hallmark of the board governmental structure in California and essential to this Board's success. The San Diego Water Board's process to encourage public participation in the adoption of this Order is discussed in the following paragraphs.

1. **Notification of Interested Parties.** Consistent with Water Code section 13167.5, and CCR title 27 sections 21730(a) and (b), the San Diego Water Board provided a 45-day notice to the Discharger and interested agencies and persons, of its intent to adopt waste discharge requirements for the expansion of the Landfill and made a copy of this Order available on its website. Furthermore, the San Diego Water Board provided the public an opportunity to submit written comments and

[32] 401 Water Quality Certification issued by the San Diego Water Board on March 16, 2020.
[33] 404 Certification issued by the U.S. Army Corps of Engineers on January 20, 2021.
[34] Full description at Practical Vision | San Diego Regional Water Quality Control Board.

recommendations. Notification was provided through posting on the San Diego Water Board website and in the board meeting agenda publication.

2. **Written Comments.** The staff determinations are tentative. Interested persons are invited to submit written comments concerning this tentative Order. Written comments must be submitted in text searchable Portable Document Format (PDF) or Microsoft Word format via email to sandiego@waterboards.ca.gov by ***5:00 p.m. on*** *August 1, 2024.* Written comments must include a signed cover/transmittal letter. Comments should include a topic line "Prima Deshecha Zone 4 Landfill Tentative Order" and be addressed to the attention of Mr. Josh Hufferd.

   Comments received by ***5:00 p.m. on August 1, 2024,*** will be included in a written response from staff and provided to the San Diego Water Board for consideration prior to the hearing. Written comments received after the due date will not be considered**.**

3. **Petitions.** Any aggrieved person may petition the State Water Board to review the decision of the San Diego Water Board regarding the final Order. The petition must be submitted *within 30 days* of the San Diego Water Board's action to the following address:

   State Water Resources Control Board
   Office of Chief Counsel
   P.O. Box 100, 1001 I Street
   Sacramento, CA 95812-0100

4. **Information and Copying.** The Order, written comments received, and other related documents are on file and may be inspected at the San Diego Water Board's address listed above, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the San Diego Water Board by calling (619) 516-1990.

5. **Register of Interested Persons.** Any person interested in being placed on the mailing list for information regarding the Order should contact the San Diego Water Board, reference this facility, and provide a name, address, phone number, and email address.

6. **Additional Information.** Requests for additional information or questions regarding this Order should be directed to Josh Hufferd at (619) 521-8038 or at Josh.Hufferd@waterboards.ca.gov.

FIGURE 1

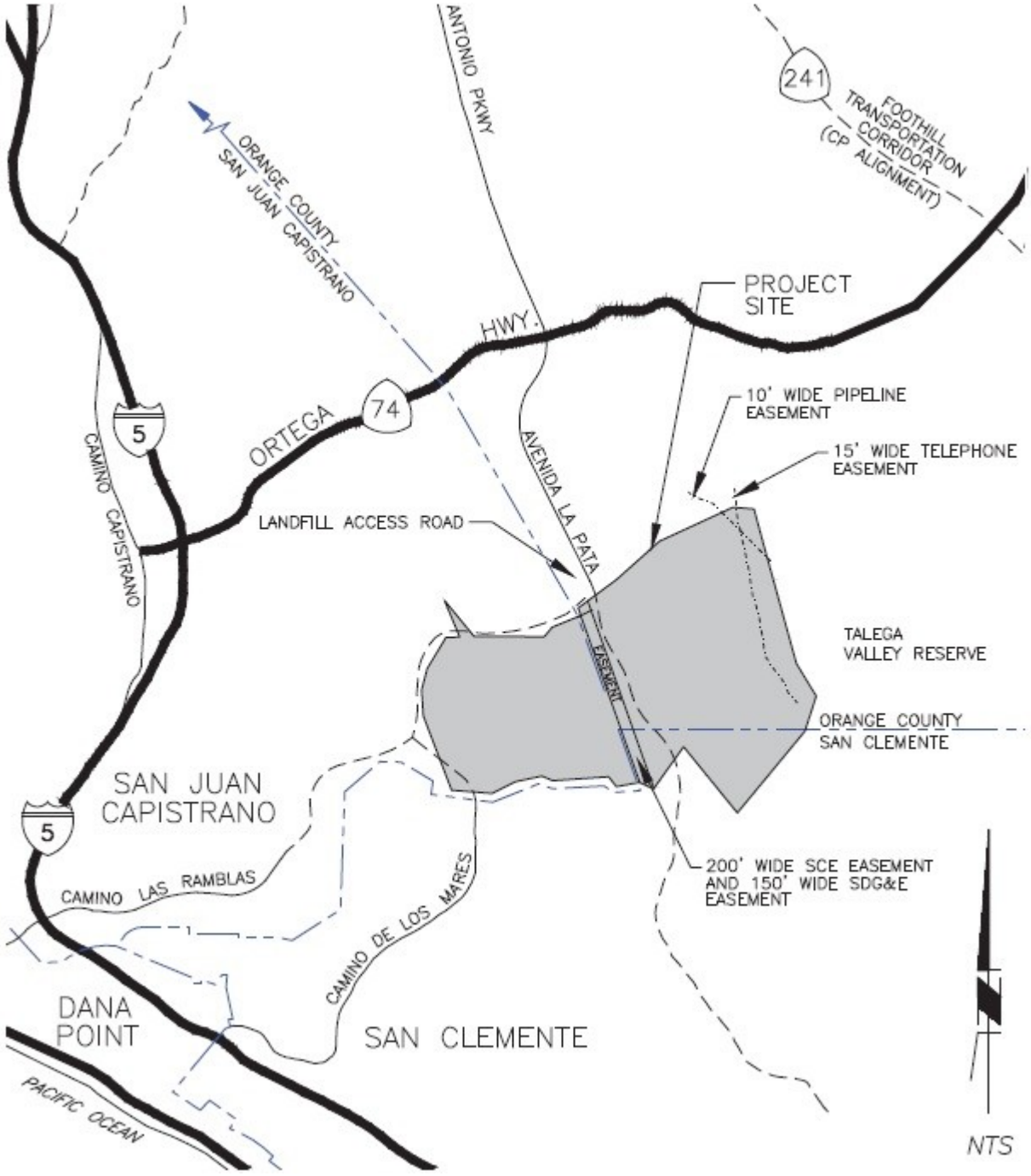

Figure 1: Site location Map prepared by SWT Civil & Environmental Engineering and submitted by Orange County Waste and Recycling in the May 2023 Joint Technical Document. The Prima Deshecha Landfill site is shaded in gray and Zone 4 is entirely within the gray portion east of Avenida La Pata.

FIGURE 2

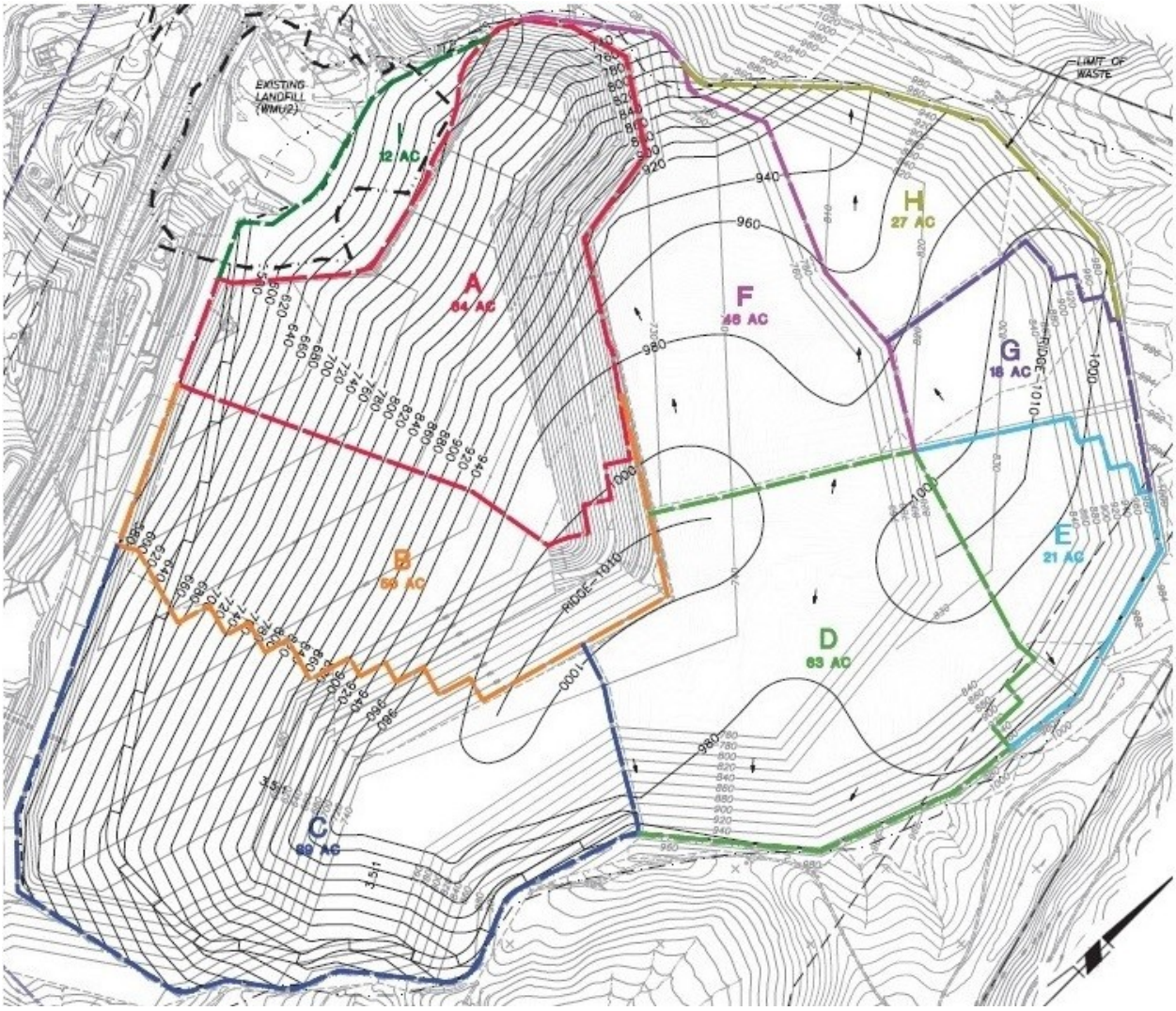

Figure 2: Prima Deshecha Zone 4 Landfill map showing lateral expansion phase liner limits and acreage. This map was prepared by SWT Civil & Environmental Engineering and submitted by Orange County Waste and Recycling in the May 2023 Joint Technical Document. The Landfill will partially incorporate the footprint of the existing landfill, Waste Management Unit 2. The north arrow in lower right corner of Figure shows orientation, where top of Figure is towards the northwest.

ATTACHMENT C

SPECIAL WASTES ACCEPTANCE REQUIREMENTS FOR

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIRMENTS FOR ORANGE COUNTY WASTE AND RECYCLING, PRIMA DESCHECHA ZONE 4 LANDFILL ORANGE COUNTY

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) designates the Prima Deshecha Zone 4 Landfill (Landfill) as a Class III, nonhazardous municipal solid waste landfill in accordance with California Code of Regulations (CCR) title 27. CCR title 27 establishes the requirements for siting, design and construction of containment structures intended to prevent degradation of waters of the State resulting from discharges of waste from the Landfill. Certain special waste streams may be considered appropriate for disposal at a Class III landfill but may also pose a threat to the integrity of waste containment structures if not managed properly. These wastes may include treated wood, dewatered sludge, dredged sediments, contaminated soils, biosolids, and other wastes that meet the applicable state and federal regulatory requirements for disposal at nonhazardous landfills. Therefore, dischargers must maintain records documenting and demonstrating accurate characterization practices and management of these types of wastes.

This attachment includes requirements for the acceptance, characterization, and management of special wastes at the Landfill.

A. General Requirements for the Acceptance of Special Wastes. The following requirements apply to the acceptance and management of all special wastes. Orange County Waste and Recycling (Discharger) must:

1. Limit the disposal of special wastes to a management unit constructed with a liner system and leachate collection and removal system compliant with CCR title 27, sections 20330 et seq., and 20340 et seq.

2. Submit a technical report to the San Diego Water Board for review and concurrence prior to the acceptance and disposal of any special waste at the Landfill. The technical report must contain the certification statement provided in **Reporting Requirement K.16.c** of Order No. R9-2025-0006 and must be signed by a licensed professional. The technical report must include the following minimum information:

    a. A detailed description of the special waste proposed for acceptance and discharge at the Landfill;

b. The classification of the special waste including a discussion of the methods used and the results of the analysis;

c. The estimated volume of special waste proposed for acceptance and disposal at the Landfill;

d. The waste acceptance criteria for each special waste that provides a demonstration the special waste is appropriate for acceptance and disposal at the Landfill; and

e. A demonstration that the proposed special waste will not compromise the integrity of the liner and leachate collection and removal system at the Landfill.

3. Immediately incorporate special wastes into the active waste filling area and may not stockpile special wastes onsite at any time.

B. Treated Wood Waste. The Discharger must manage and dispose of treated wood waste in accordance with the requirements of the California Health and Safety Code, section 25230 et seq. In addition:

1. Dischargers requesting to accept treated wood wastes for the first time must provide a technical report to the San Diego Water Board for review and consideration. The technical report must include the acceptance criteria and proposed management practices for treated wood wastes.

2. Treated wood waste disposal must be limited to waste management units constructed with a liner system and leachate collection and removal system compliant with the requirements set forth in CCR title 27. Treated wood waste must be immediately discharged into a lined waste management unit and may not be stockpiled onsite.

C. Dewatered Sludge. The Discharger must manage and dispose of dewatered sludge waste in accordance with the requirements of CCR title 27, section 20220. Dewatered sludge wastes accepted for disposal must meet the minimum moisture content and solids-to-liquids ratio requirements of CCR title 27, section 20220(c) and the requirements for treated municipal sewage sludge in Code of Federal Regulations (CFR), title 40, part 258.2. In addition, the Discharger must:

1. Prohibit the onsite stockpiling of dewatered sludge prior to disposal.

2. Ensure dewatered sludge maintains a minimum solids-to-liquids ratio of 5:1, by weight and the co-disposal of dewatered sludge and municipal solid waste will not exceed the moisture holding capacity of the collective waste. Primary sludge must contain a minimum of 20 percent solids, by weight. Secondary

sludge, mixtures of primary and secondary sludge, or water treatment sludge must contain a minimum of 15 percent solids, by weight.

3. Submit analytical data to confirm the moisture content of the dewatered sludge, using a San Diego Water Board approved methodology.

D. Dredged Sediments. The Discharger must manage and dispose of dredged sediments in accordance with CCR title 27, section 20200(c) and d (3). The Discharger must also ensure that dredged sediments accepted for disposal are characterized as nonhazardous wastes and meet the minimum requirements for disposal of contaminated soils and wet wastes in accordance with CCR title 27, sections 20200(c) and (d)(3). In addition, the Discharger must:

1. Ensure dredged sediments accepted for disposal are accompanied by sampling data confirming the moisture content of the wastes and demonstrating compliance with the prohibitions and directives of this Order. If the source facility generating the waste does not provide confirmation sampling, the Discharger must perform moisture content confirmation sampling and analysis using a method approved by the San Diego Water Board.

2. Ensure dredged sediments accepted for disposal are accompanied by waste characterization data confirming the wastes are appropriate for disposal at a nonhazardous waste landfill. If the source generating the waste does not provide waste characterization data, the Discharger must perform sampling and analysis of the wastes to confirm the wastes meet the criteria to be classified as nonhazardous.

E. Contaminated Soils. The Discharger must manage and dispose of contaminated soils in a manner that is consistent with the applicable regulations in CCR title 22, division 4.5 and section 66261.24; and 40 CFR sections 261.31 through 261.33. The Discharger must also ensure that contaminated soils accepted for disposal are compatible with the containment structures at the Landfill. Contaminated soils can be nonhazardous, hazardous, or designated wastes, depending on the measured concentrations of toxic or harmful chemical contaminants. For the purposes of the Order, “contaminated soils” means soils that contain chemical contaminants that are below threshold values that would cause the soil to be classified as hazardous (Class I) or designated (Class II) waste.[1] These chemical contaminates include total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-

[1] Soils contaminated with low to moderate concentrations of such contaminants are wastes in Water Code section 13050 and are required to be regulated under waste discharge requirements pursuant to Water Code section 13263(a).

volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (BCPs), and California Assessment Manual (CAM) metals. The Discharger must comply with the following minimum requirements:

1. Ensure contaminated soils are classified through sampling and analysis as California non-hazardous wastes, pursuant to CCR title 22, division 4.5.

2. Ensure contaminated soils do not contain constituents other than TPH, VOCs, SVOCs, organochlorine pesticides, BCPs, and CAM metals, which could pose a threat to water quality if discharged in an uncontrolled manner. In addition, these contaminated soils must also meet the following criteria for disposal at a non-hazardous landfill:

    a. Contaminated soils do not contain metals and pesticides, organic and inorganic compounds exceeding the applicable California hazardous waste concentration limits as determined using the soluble threshold limit concentration (STLC) in accordance with CCR title 22, section 66261.24, as amended.

    b. Contaminated soils do not contain concentrations of metals, pesticides, organic and inorganic compounds exceeding the maximum concentrations of contaminants using the Toxicity Characteristic Leaching Procedure (TCLP) analysis in accordance with CCR title 22, section 66261.24, as amended.

    c. Contaminated soils do not contain hazardous wastes identified in CCR title 22, Division 4.5, and/or federal listed Resource Conservation and Recovery Act (RCRA) hazardous wastes identified in 40 CFR, sections 261.31, 261.32, and 261.33.

    d. Contaminated soils do not contain petroleum hydrocarbons that exceed the maximum concentration limits listed in Table 3.

Table 1: Maximum Concentration Limits for Soils Containing Nonhazardous Concentrations of Metals and Pesticides, Organic and Inorganic Compounds using the Soluble Threshold Limit Concentration (STLC) analysis.

Contaminant (CAM 17*)	Maximum Concentration Limits STLC** (mg/l)
Antimony	15
Arsenic	5.0
Barium	100
Beryllium	0.75
Cadmium	1.0
Chromium	5
Cobalt	80
Copper	25
Lead	5.0
Mercury	0.2
Molybdenum	350
Nickel	20
Selenium	1.0
Silver	5
Thallium	7.0
Vanadium	24
Zinc	250
Contaminant	**STLC (mg/l)**
Aldrin	0.14
Chlordane	0.25
DDT, DDE, DDD	0.1
2,4-Dichlorophenoxyacetic acid	10
Dieldrin	0.8
Dioxin (2,3,7,8-TCDD)	0.001
Endrin	0.02
Heptachlor	0.47
Kepone	2.1
Lead compounds, organic	-
Lindane	0.4
Methoxychlor	10
Mirex	2.1
Pentachlorophenol	1.7
Polychlorinated biphenyls (PCBs)	5.0
Toxaphene	0.5
Trichloroethylene	204
2,4,5-Trichlorophenoxypropionic acid	1.0

Mg/l – milligrams per liter
Reference - California Metals as defined in CCR title 22, section 66261.24.

Table 2: Maximum Concentration Limits for Soils Containing Nonhazardous Concentrations of Metals, Pesticides, Organic and Inorganic Compounds using The TCLP analysis.

Contaminant	Maximum Concentration Limits Regulatory Level (mg/l)
Arsenic	5.0
Barium	100.0
Benzene	0.5
Cadmium	1.0
Caron tetrachloride	0.5
Chlordane	0.03
Chlorobenzene	100.0
Chloroform	6.0
Chromium	5.0
o-Cresol	200.0
m-Cresol	200.0
p-Cresol	200.0
Cresol, total	200.0
2,4 - D	10.0
1,4-Dichlorobenzene	7.5
1,2-Dichloroethane	0.5
1,1-Dichloroethylene	0.7
2,4-Dinitrotoluene	0.13
Endrin	0.02
Heptachlor (and its epoxide)	0.008
Hexachlorobenzene	0.13
Hexachlorobutadiene	0.5
Hexachloroethane	3.0
Lead	5.0
Lindane	0.4
Mercury	0.2
Methoxychlor	10.0
Methyl ethyl ketone	200.0
Nitrobenzene	2.0
Pentachlorophenol	100.0
Pyridine	5.0
Selenium	1.0
Silver	5.0
Tetrachloroethylene	0.7
Toxaphene	0.5
Trichloroethylene	0.5
2,4,5-Trichlorophenol	400.0
2,4,6-Trichlorophenol	2.0
2,4,5-TP (Silvex)	1.0

Vinyl Chloride	0.2

Mg/l – milligrams per liter
Reference – CCR title 22, section 66261.24, as amended.

Table 3: Maximum Concentration Limits for Soils containing Petroleum Hydrocarbons.

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 with RCI and 96-hour bioassay
Diesel Fuel, Kerosene, Oil, Jet Fuel, and heavy-end Hydrocarbons	3,000 ppm TPH	3,000 – 15,000 ppm TPH with RCI and 96-hour bioassay
Hydraulic Oil, Cutting and Grinding Oil, Waste Oil, and heavy-end Hydrocarbons	3,000 ppm TPH	

ppm – parts per million in units of milligrams per kilograms
TPH – Total Petroleum Hydrocarbons
TRPH – Total Recoverable Petroleum Hydrocarbons
RCI – Hazardous Waste Criteria for Reactivity, Corrosivity, Ignitability, and 96-hour Acute bioassay as established by CCR title 22.

3. Ensure contaminated soils are sampled in accordance with the guidelines set forth in the most current version of *"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846"* (United States Environmental Protection Agency). At a minimum, for quantities of soil less than or equal to 500-cubic yards, four samples must be collected per 100-cubic yards of contaminated soil. For quantities of soil between 500 and 5,000-cubic yards, an additional sample must be collected for every 500-cubic yards of contaminated soil.

4. Ensure contaminated soils stockpiled and reserved for use as daily cover adhere to the requirements of the Order for stockpiled soils. Contaminated soils may be used for daily landfill cover if approved by the San Diego Water Board and either CalRecycle or the Local Enforcement Agency.

ATTACHMENT D

REQUIREMENTS FOR CO-LOCATED CHIPPING AND GRINDING OPERATIONS

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING, PRIMA DESCHECHA ZONE 4 LANDFILL ORANGE COUNTY

Orange County Waste and Recycling (Discharger) may implement chipping and grinding operations at the Prima Deshecha Zone 4 Landfill (Landfill) to divert source separated (i.e., curbside) “green material” from the municipal solid waste stream in compliance with the California Department of Resources Recycling and Recovery (CalRecycle) Mandatory Commercial Organic Recycling requirements. Chipping and grinding operations do not produce compost, but mechanically reduce the size or otherwise engage in the handling of “green material.” The requirements for the diversion of reusable wastes are found in Public Resources Code section 41780 et seq. and are implemented by the Local Enforcement Agencies through the issuance of the Solid Waste Facility Permit.

The Discharger is responsible for ensuring that chipping and grinding operations do not interfere with the daily operations of the Landfill. The Discharger is also responsible for ensuring that chipping and grinding operations do not compromise the integrity of any containment structures including intermediate or final cover systems. The Discharger must maintain intermediate or final cover systems in accordance with the requirements found in California Code of Regulations (CCR), title 27. This attachment includes requirements for the acceptance and management of green wastes accepted for chipping and grinding operations.

A. Designated Area. The Discharger must designate an area for its chipping and grinding operations. The designated area must be located outside of the active waste disposal area and clearly identified on site maps included in the Annual Compliance Report. The designated area must be designed and maintained to prevent, to the maximum extent practicable, ponding, infiltration, inundation, erosion, and meet the following minimum criteria:

1. If the designated area is located on native soils within the Landfill footprint, the Discharger must provide a demonstration that underlying native soils have sufficient hydraulic conductivity to act as a barrier between the chipping and grinding operations and groundwater. The Discharger must provide the demonstration in advance of initiating chipping and grinding activities.

2. If the designated area is located over a waste management unit consisting of a liner and leachate collection and removal system, the Discharger must ensure that the area has a minimum of 24-inches of interim cover in place with sufficient hydraulic conductivity to prevent infiltration of chipping and grinding operation liquids and potential leachate from comingling with the underlying waste prism.

3. If the designated area needs to move due to waste disposal operation needs, the Discharger must provide a written notification to the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) of its intent to move the designated area and provide a site map outlining the current and proposed designated area locations.

4. If the designated area is over interim or final cover that needs to be repaired, the Discharger must submit a workplan to the San Diego Water Board that includes:

    a. A discussion regarding the extent of damage and proposed activities to repair the damaged cover.

    b. A map illustrating the location of the damaged cover.

    c. The protocols for managing green waste accepted at the Landfill for chipping and grinding during the repair activities.

    d. The source of materials used to repair the cover.

    e. A proposed timeline for completion of repair activities.

B. Water Use. The Discharger must implement best management practices (BMPs) to ensure water used at the chipping and grinding operation does not exceed the amount necessary to reduce immediate dust hazards and prevent the discharge of leachate or runoff from the designated area.

C. Storm Water Management. The Discharger must ensure the chipping and grinding operation is adequately protected from erosion or washout by storm water. The Discharger must implement BMPs to prevent storm water run-on from contacting chipping and grinding operations feedstocks or final product and prevent run-off and tannins from leaving the designated area. The Discharger must ensure BMPs are properly installed prior to the start of the rainy season, and ***no later than October 1st*** of each year.

D. Allowable Feedstocks. The Discharger must limit the allowable feedstocks[1] at the chipping and grinding operations to compostable materials, which include tree and yard trimmings, untreated wood waste, natural fiber products, wood waste from silviculture, manufacturing, and construction and demolition operations. Allowable feedstocks do not include food material, vegetative food material, biosolids, material separated from comingled solid waste collection or processing, wood treated with lead-based paint or wood preservative, construction and demolition debris, manure, or animal carcasses that cannot meet the definition of "food material."

E. Management of Chipping and Grinding Materials. The Discharger must comply with the requirements set forth in CCR title 14, section 17852(a)(10)(A)(2) for stockpiling of feedstocks and must remove each load of "green material" from the chipping and grinding operation ***within 48-hours*** of receipt. The Local Enforcement Agency has the discretion to extend the "green material" removal timeframe requirement for up to seven days. Should the Local Enforcement Agency grant an extension, the Discharger must notify the San Diego Water Board in writing ***within seven days***.

F. Inspection and Maintenance. The Discharger must regularly inspect and maintain the designated area. The Discharger must conduct inspections at a frequency that will ensure the chipping and grinding operation does not create or threaten to create a condition of contamination, pollution, or nuisance. The Discharger must submit copies of the self-inspection reports to the San Diego Water Board, as an appendix to the Annual Compliance Report.

[1] As defined in CCR, title 14, section 17852.

ATTACHMENT E

REQUIREMENTS FOR CO-LOCATED COMPOSTING OPERATIONS

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING PRIMA DESHECHA ZONE 4 LANDFILL ORANGE COUNTY

Orange County Waste and Recycling (Discharger) may implement composting operations at the Prima Deshecha Zone 4 Landfill (Landfill) to divert source-separated (i.e., curbside) and commercial green wastes from the municipal solid waste stream in compliance with the California Department of Resources Recycling and Recovery (CalRecycle) Mandatory Commercial Organic Recycling requirements.[1] The requirements for the diversion of reusable wastes are found in Public Resources Code section 41780 et seq. and are implemented by the Local Enforcement Agencies through the issuance of the Solid Waste Facility Permit.

The Discharger must comply with the following requirements for composting operations co-located at the Landfill.

A. Enrollment in Order No. WQ-2020-0012-DWQ. The Discharger must submit to the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), 1) a complete Notice of Intent (NOI) to enroll the composting operation in the State Water Resource Control Board's Order WQ 2020-0012-DWQ, *General Waste Discharge Requirements for Commercial Composting Operations, State Water Resources Control Board Order WQ 2020-0012-DWQ* (General Order WQ 2020-0012-DWQ), 2) appropriate filing fee (California Code of Regulations title 23, section 2200), and 3) a technical report. The technical report must include, but is not limited to, the information requested in General Order WQ 2020-0012-DWQ and this Attachment. In the event of a conflict between the requirements of the General Order WQ 2020-0012-DWQ and this Attachment, the more stringent requirement prevails.

B. Design, Construction, and Operation Requirements.

1. **Designated Area.** The Discharger's technical report must designate an area for the composting operation that: 1) is outside the landfill's active waste disposal area, 2) provides a dedicated entrance and exit from the composting area to prevent disruption of landfill operations. The Discharger's technical report must provide site maps that clearly identify the location of the designated area at the landfill, and any features or ancillary waste control

[1] https://calrecycle.ca.gov/recycle/commercial/organics/

system associated with the composting operation. The Discharger must also include these maps in the Annual Compliance Report.

2. **Working Surface.** The Discharger's technical report must demonstrate that composting operations will not adversely impact the integrity of the landfill containment structures, including interim and final cover systems. The Discharger's technical report must also demonstrate how the operation will meet and maintain the following minimum criteria:

   a. If located over an unlined waste management unit:

      i. The landfill final cover or interim cover is at least 24-inches thick.

      ii. The working surface is underlain by a minimum 40-mil geomembrane layer or 60-mil high density polyethylene (HDPE) to prevent infiltration of wastewater derived from composting operations into the underlying waste prism.

      iii. The working surface is constructed of compacted soils above the interim or final cover with a minimum thickness of 12-inches and a hydraulic conductivity of $1x10^{-7}$ cm/s or less.

   b. If located over a lined waste management unit:

      i. The landfill final cover or interim cover is at least 24-inches thick.

      ii. The working surface is underlain by a minimum 40-mil geomembrane or 60-mil HDPE layer to prevent infiltration of wastewater derived from composting operations into the underlying waste prism.

      iii. The working surface is constructed of compacted soils above the interim or final cover with a minimum thickness of 12-inches and a hydraulic conductivity of $1x10^{-5}$ cm/s or less.

   The Discharger may propose an engineered alternative to the construction criteria listed above that includes the rationale for the proposed alternative and a demonstration that the alternative design criteria will be protective of water quality and will not adversely impact the existing landfill.

3. **Detention Basin.** The Discharger must design, construct, and maintain a dedicated detention basin to collect and manage wastewater runoff from the composting operation. Wastewater refers to leachate or any other liquids flowing from, or on the working surface. Wastewater from the working surface must be conveyed to a detention basin, and may be reapplied to the compost

piles, as needed. The Discharger is prohibited from using wastewater associated with the composting operation beyond the designated area. The Discharger's technical report must also demonstrate that the basin will not adversely impact the integrity of the landfill operations and containment structures, and the basin is 1) sized to manage stormwater runoff from a 24-hour, 25-year storm event and 2) located outside the landfill waste footprint.

4. **Stormwater Best Management Practices.** The Discharger must install appropriate best management practices (BMPs) to prevent stormwater run-on from contacting stockpiled feedstocks or composting windrows and to prevent run-off from leaving the composting operation area. Stormwater BMPs must include, at a minimum: 1) a berm surrounding the perimeter of the composting designated area, 2) a lined culvert or channel for wastewater transport from the working surface to the dedicated detention basin, and 3) any other BMPs necessary to prevent offsite discharges, cross-contamination between stockpiled feedstocks, the active curing area, and the final product area. The Discharger must install stormwater BMPs prior to the start of the rainy season but ***no later than October 1st*** of each year.

5. **Management of Feedstocks.** The Discharger must manage feedstocks in a manner that prevents unauthorized discharges of waste outside the composting designated area. The Discharger must manage any feedstocks that may attract vectors, such as rodents, scavenging birds, or insects, in a manner that reduces vectors, odors, dust, and other nuisance conditions. Management of feedstocks may include covering or containerizing stockpiled feedstocks to reduce potential vectors and nuisance conditions.

C. Updating Enrollment Documents. The Discharger must submit an updated NOI and technical report outlining proposed changes to the composting operation (e.g., designated area size, feedstock/finished compost volume, feedstock type, etc...). The Discharger must submit the updated NOI and technical report *at least 90 days* prior to implementation for review by the San Diego Water Board.

D. General Site Maintenance. The Discharger must maintain the designated area to prevent adverse impacts to the working surface of the composting operation area, the underlying landfill cover, and the waste prism.

E. Corrective Action Workplan. The Discharger must submit a workplan to the San Diego Water Board ***within 30 days,*** when the Discharger becomes aware that either the working surface or the underlying landfill cover is damaged. The workplan must include the following minimum information:

1. A discussion regarding the extent of damage and proposed activities to repair the damaged working surface or landfill cover.

2. A map illustrating the location of the damaged area.

3. A discussion regarding the management of materials (e.g., feedstock piles) at the composting operation during repair activities.

4. A discussion of repair material sources for the working surface or landfill cover, and a demonstration that the materials proposed for use meet the approved design criteria and technical specifications.

5. A proposed schedule of corrective actions, including milestones.

F. Other Applicable Requirements. The Discharger must comply with all other applicable requirements including the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ and Order WQ2018-0028-DWQ, NPDES No. CAS000001 (IGP), waste discharge requirements, and any requirements issued by the Local Enforcement Agency or CalRecycle (i.e., solid waste facility permit).

ATTACHMENT F

MATERIAL RECOVERY FACILITY OPERATION REQUIREMENTS

ORDER NO. R9-2025-0006, WASTE DISCHARGE REQUIREMENTS FOR ORANGE COUNTY WASTE AND RECYCLING, PRIMA DESCHECHA ZONE 4 LANDFILL ORANGE COUNTY

Orange County Waste and Recycling (Discharger) may operate a Material Recovery Facilities (MRFs) at the Prima Deshecha Zone 4 Landfill (Landfill) to divert recyclable materials from the municipal solid waste stream in compliance with the California Department of Resources Recycling and Recovery (CalRecycle) waste diversion requirements. The requirements for the diversion of reusable wastes are found in Public Resources Code section 41780 et seq. and are implemented by the Local Enforcement Agencies through the issuance of the Solid Waste Facility Permit.

This attachment includes requirements for the operation of a MRF within the Landfill's footprint.

A. **Designated Area**. The Discharger must designate an area for operation of the MRF. The MRF operations area must be located outside of the active waste disposal area and clearly identified on site maps included in the Annual Compliance Report. The designated area must be designed to prevent, to the maximum extent practicable, ponding, infiltration, inundation, erosion, and meet the following minimum criteria:

1. If the MRF operation area is located on native soils within the Landfill footprint, the Discharger must provide a demonstration that underlying native soils have sufficient hydraulic conductivity to act as a barrier between the MRF operation and groundwater. The Discharger must provide the demonstration in advance of initiation of the MRF operations.

2. If the MRF operation area is located over a waste management unit consisting of a liner and leachate collection and removal system, the Discharger must ensure that the area has a minimum of 24-inches of interim cover in place with sufficient hydraulic conductivity to prevent infiltration of stormwater accumulation in the MRF operation area into the underlying waste prism.

3. If the designated area for MRF operations needs to move due to waste disposal operation needs, the Discharger must notify the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in

writing and provide a site map outlining the current and proposed location for the MRF operations.

4. If the designated area is over interim or final cover that needs to be repaired, the Discharger must submit a workplan to the San Diego Water Board that includes:

   a. A discussion regarding the extent of damage and proposed activities to repair the damaged cover.

   b. A map illustrating the location of the damaged cover.

   c. The source of materials used to repair the cover.

   d. A proposed timeline for completion of repair activities.

B. **Storm Water Management**. The Discharger must ensure the MRF operations area is adequately protected from erosion or washout by storm water. The Discharger must install appropriate best management practices (BMPs) to (a) prevent storm water run-on from contacting wastes at the MRF, and (b) to prevent run-off from leaving the MRF operations area. BMPs must be installed prior to the start of the rainy season, but ***no later than October 1st*** of each year. If the MRF is operated by an entity other than the Discharger (i.e., a third party through a lease agreement), the operator of the MRF must obtain separate coverage under National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities, Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ and Order WQ2018-0028-DWQ, NPDES No. CAS000001 (IGP).

C. **Inspection and Maintenance**. The Discharger must regularly inspect the MRF and designated area. Copies of the inspection reports must be included as an appendix to the Annual Compliance Report. The Discharger must conduct inspections at a frequency that will ensure the MRF does not create or threaten to create a condition of contamination, pollution, or nuisance. If the MRF is located within the Landfill footprint, the operation must be managed in a manner that maintains the integrity of the existing cover system. The Discharger must indicate the location of the MRF on a map included in the Annual Compliance Report.