CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

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WASTE DISCHARGE REQUIREMENTS

ORDER R8-2025-0006

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	ADOPTED
Program:	Title 27 Discharges to Land
Discharger(s):	Riverside County Department of Waste Resources
Facility:	Badlands Sanitary Landfill
Address:	31125 Ironwood Avenue Moreno Valley, California 92555
County:	Riverside County
GeoTracker ID:	L10003146754

CERTIFICATION

I, JAYNE JOY, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on 13 June 2025.

Jayne Joy
Digitally signed by Jayne Joy
Date: 2025.06.18 12:42:03 -07'00'
Water Boards

JAYNE JOY
Executive Officer

FINDINGS

The Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) hereby finds as follows:

1. **Badlands Sanitary Landfill** – The Riverside County Department of Waste Resources (Discharger) owns and operates the Badlands Sanitary Landfill (the Facility). The Facility is a Class III, nonhazardous municipal solid waste (MSW) landfill that began operations in 1966. The Facility is located at 31125 Ironwood Avenue, within the City of Moreno Valley; Section 31 and all of Section 32, T2S, R2W, and Portions of Sections 4,5, and 6, Township 3 South, Range 2 West, San Bernadino Base and Meridian. The location of the Facility (33.95^{o} N-latitude, -117.12^{o} W-longitude) is shown on **Attachment C-1 – Vicinity Map**.

   The Facility is a landfill consisting of 13 existing, contiguous waste management units (Phase 1 WMUs and Phase 2 Stage 1 WMU). The subject property encompasses 1,262.5 acres, of which 409 acres are currently permitted by the Santa Ana Water Board and the California Department of Resources Recycling and Recovery (CalRecycle) for waste disposal. Of the 409-acre permitted waste disposal area, approximately 38 acres are unlined, 130 acres are lined, and 223 acres are proposed (Phase 2, Stages 2 to 9). WMUs for existing Phase 1 (Canyons 1 through 4) and proposed Phase 2 (Canyons 5 through 6) are shown on **Attachments C-2 and C-3** and summarized in **Table 1**.

2. **Site Capacity and Closure** – The Facility total waste disposal capacity is estimated at 116,700,000 cubic yards. As of March 17, 2022, 29,500,000 cubic yards of site disposal capacity has been used, with a net remaining disposal capacity (in Phase 1) of approximately 4,900,000 cubic yards. Site expansion in Phase 2 (Stages 1 through 9) creates additional disposal capacity of 82,300,000 cubic yards. Based upon these conditions and upon daily tonnage disposal totals within this permitted landfill area, the closure date for the Facility is projected to be July 2059.

Table 1 - Waste Management Units (WMUs)

WMU	Class	Size (Acres)	Lined	Status
Phase 1, Unlined (pre-Title 27 Unit)	Class III	38	Unlined	Operating
Phase 1, C1P1 (pre-Title 27 Unit)	Class III	6.06	Lined (1993)	Operating
Phase 1, C2P1	Class III	3.31	Lined (1995)	Operating
Phase 1, C1P2/C2P2	Class III	6.87	Lined (1996)	Operating
Phase 1, C1P3/C2P3	Class III	7.0	Lined (1997)	Operating
Phase 1, C2P4/C4P1	Class III	4.71	Lined (1998)	Operating
Phase 1, C3P1	Class III	27	Lined (2000)	Operating
Phase 1, C4P2	Class III	21	Lined (2003)	Operating
Phase 1, C4P3	Class III	13.7	Lined (2014)	Operating
Phase 1, C2P5/C3P2	Class III	7.0	Lined (2021)	Operating
Phase 2, Stage 1 (P2S1)	Class III	34	Lined (2025)	Operating
Phase 2, Stage 2 (P2S2)	Class III	36	Proposed (2028)	Proposed
Phase 2, Stage 3 (P2S3)	Class III	22	Proposed (2035)	Proposed
Phase 2, State 4 (P2S4)	Class III	35	Proposed (2034)	Proposed
Phase 2, Stage 5 (P2S5)	Class III	41	Proposed (2041)	Proposed
Phase 2, Stage 6 (P2S6)	Class III	18	Proposed (2044)	Proposed
Phase 2, Stage 7 (P2S7)	Class III	18	Proposed (2046)	Proposed
Phase 2, Stage 8 (P2S8)	Class III	24	Proposed (2047)	Proposed
Phase 2, Stage 9 (P2S9)	Class III	29	Proposed (2051)	Proposed

Regulatory Framework

3. **Regulation of Nonhazardous Municipal Solid Waste (MSW)** – The Facility's WMUs are subject to federal Municipal Solid Waste (MSW) regulations promulgated under the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. section 6901 et seq.). Typically referred to as "Subtitle D," such regulations are now codified as 40 C.F.R. part 258 (Part 258) and implemented in part through the provisions of California Code of Regulations, Title 27 (Title 27) and in accordance with State Water Resources Control Board (State Water Board) Resolution No. 93-62.

4. **Permitting under Waste Discharge Requirements (WDRs)** – Adopted pursuant to Water Code section 13263, subdivision (a), this Order prescribes Waste Discharge Requirements (WDRs) incorporating applicable provisions of Title 27, Part 258 and State Water Board Resolution No. 93-62—particularly with respect to siting, design, construction, operations, drainage and erosion control, water quality monitoring, and when necessary, groundwater remediation (i.e., corrective action).

5. **Facility Waste Discharge Requirements** – The Facility is currently regulated under Waste Discharge Requirements (WDRs) Santa Ana Water Board Order R8-2020-0003, which consolidated and replaces all previous WDRs for the Facility to be consistent with the current federal and State laws and regulations for MSW disposal. The existing WDRs contain discharge requirements, provisions, and monitoring and reporting requirements in accordance with Title 27, for landfill siting, design, construction, operations, drainage and erosion control, water quality monitoring and groundwater remediation, when necessary. Since the adoption of Order R8-2020-0003, changes to existing site operations, permitted waste disposal footprint, and expansion plan, described in Findings 7 and 8 below, necessitate revision of existing waste discharge requirements.

6. **Terms and Acronyms** – Definitions of terms and acronyms used in this Order are included in **Attachments A and B**, respectively. The terms used in this Order are contained in Title 27, section 20150, section 20163, section 20164, and section 20415.

7. **Badlands Landfill Integrated Project (BLIP)** – From 2019 to 2022, the Discharger, as the lead agency, conducted an Initial Study for the Badlands Landfill Integrated Project (BLIP), in compliance with the California Environmental Quality Act (CEQA). The BLIP proposed the following changes to the existing site operations:

    a. Increased the existing maximum allowable daily MSW disposal tonnage from 4,500 tons per day to 5,000 tons per day.

b. Increased the existing site permitted waste disposal area or footprint from 150 acres to 409 acres and the permitted non-disposal, landfill ancillary activity area from 278 acres to 811 acres. The increase in landfill disposal footprint would allow site expansion into Phase 2 (Canyons 5 and 6), as shown in **Attachment C-3**, beyond the existing landfill disposal footprint, Phase 1 (which includes the unlined pre-subtitle D regulation area and lined WMUs from Canyon 1 through 4). Phase 2 expansion in Canyons 5 and 6 will occur in approximately 9 stages, Stages 1 through 9 (from 2025 to 2051), as shown in **Attachment C-3**. The increase in permitted non-disposal, landfill ancillary activity area would allow construction for site entrance improvements and construction of Reduced Cycle Park Stockpiles (RCPS 1 through 3) and Eastern Stockpile (Sub-Canyon Stockpile) during Phase 2 expansion.

c. Add a greenwaste composting facility, Badlands Compost Facility, to site operations. The Badlands Compost Facility is scheduled for construction in Fall 2025.

8. On April 12, 2022, the Discharger adopted a mitigated Negative Declaration, Environmental Assessment (EA) 2017-03 for the BLIP. Subsequently, the Discharger prepared and submitted Joint Technical Document (JTD) No. 11 (Report of Disposal Site Information) and JTD No. 12 (Preliminary Closure/Post-Closure Maintenance Plan) in May 2022 and its amendment, JTD No. 13 (Amendment to JTD No. 11) in June 2024 to incorporate the BLIP components. JTD Nos. 11, 12, and 13 have been accepted and approved by CalRecycle, Riverside County Local Enforcement Agency and the Santa Ana Water Board.

9. On August 3, 2023, the Badlands Compost Facility was enrolled as a Tier 1 facility under the statewide General Order, Order WQ 2015-0121-DWQ, as amended by Order WQ 2020-0012-DWQ, General Waste Discharge Requirements for Commercial Composting Operations.

10. On July 26, 2024 the Santa Ana Water Board adopted Order R8-2024-0046, for the discharge of fill materials to Waters of the State as part of the following BLIP activities at the Facility:

a. expansion of P2S1 through P2S3;

b. site entrance Improvements;

c. construction of the Cycle Park Stockpiles; and

d. construction of the Eastern Stockpile.

Order R8-2024-0046 prescribes discharge, monitoring, and reporting requirements for the discharge of fill materials to Waters of the State and

implementation of mitigation measures for impacted water bodies. Separate WDRs will be required for any Waters of the State impacted by other BLIP activities, including discharge of fill activities for WMU expansion beyond P2S3. Nothing in this Order shall be construed as amending, superseding or otherwise altering the provisions of Order R8-2024-0046.

11. **Revision of Requirements** – This Order updates and replaces the Facility's previous Title 27 WDRs, Order R8-2020-0003, to incorporate:

    a. changes in site operations and expansion outlined in the BLIP;

    b. the Phase 2 expansion plan and permit coverage for proposed WMUs of Phase 2, Stages 2 through 9; and

    c. changes in nomenclature of the existing Phase 1 (unlined and lined) WMUs to establish consistency with the naming convention for the proposed Phase 2 WMUs.

Waste Acceptance

12. **Waste Classification** – Pursuant to Title 27, section 20200, subdivision (a), wastes are classified based on their risk of impairment to groundwater.

    a. Nonhazardous solid wastes, including MSW, that are classified as Class III wastes are disposed of at Class III landfills

    b. Designated wastes are classified as Class II wastes, and may be disposed of at a Class I, II, or III landfill. Classes II and III landfills are regulated by the Regional Water Boards and California Department of Resources Recycling and Recovery (CalRecycle).

    c. Hazardous wastes are classified as Class I wastes, which are regulated under CCR, Title 22, Division 4.5 by the California Department of Toxic Substances Control (DTSC).

    The Facility's WMUs accept MSW and nonhazardous solid wastes and are classified as Class III MSWLFs.

13. **Waste Sources, Types, and Quantities** – The Facility is currently permitted by CalRecycle to accept a maximum daily tonnage of 5,000 tons per day of MSW from the Cities of Riverside, Moreno Valley, Temecula, Perris, Lake Elsinore, Murrieta, and unincorporated areas of Western Riverside County. The Facility also provides services to Los Angeles, Orange, San Bernardino, and San Diego Counties. Wastes accepted for disposal at the Facility include municipal waste, agricultural waste, inert materials, construction/demolition/renovation waste, tires, empty herbicidal/pesticidal containers, dead animals, gypsum/drywall appliances,

disaster-related debris, nonhazardous high moisture content wastes (HMCW), nonhazardous contaminated soils, treaded woodwaste (TWW), Cathode Ray Tube (CRT) panel glass and designated wastes authorized by the Executive Officer (EO) of the Santa Ana Water Board. The Facility also accepts residual waste from three private transfer stations in western Riverside County, namely, Robert A. Nelson Transfer Station/Materials Recovery Facility, Moreno Valley Transfer Station and Perris Transfer Station.

14. **Designated Waste** – Per Water Code section 13173, a designated waste is defined as either of the following:

    a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Health & Safety Code section 25143, or

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

15. **Disposal of Designated Wastes** – A nonhazardous waste that might be considered a designate waste, disposed under ambient conditions at a composite-lined unit of a Class III WMU, would not reasonably be expected to release pollutants in concentrations exceeding applicable WQOs and would not be reasonably expected to affect beneficial uses of the waters of the state. Phase 1 lined WMUs, except for C1P1, are equipped and Phase 2 WMUs are required to be equipped with a composite liner system, the design of which is considered equivalent to a Title 27 Class II design. Accordingly, this Order allows the disposal of wastes that might otherwise be considered designated wastes in composite-lined waste management units at the Facility.

16. **Waste Acceptance Program and Contaminated Soils** – Soils contaminated with moderate concentrations of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), and California Administrative Manual (CAM) metals, are “wastes” as defined in Water Code, section 13050 and are required to be regulated under waste discharge requirements pursuant to Water Code section 13263, subdivision (a). The discharge of such wastes to land for disposal or reuse could affect the quality of the waters of the State if not properly managed. However, land disposal or reuse of contaminated soils at properly engineered and managed MSW landfills is an efficient and economical means of minimizing the impacts to water quality from such discharge of waste.

On August 6, 2015, the EO of the Santa Ana Water Board approved the waste acceptance program (WAP) for disposal and reuse of contaminated soils (Soil WAP) at the Facility in accordance with waste acceptance criteria prescribed in General Order R8-2014-0006. General Order R8-2016-0052 subsequently replaced Order R8-2014-0006 to update or prescribe new acceptance criteria for the disposal of nonhazardous contaminated soils, CRT panel glass, and designated waste, and for the beneficial reuse of contaminated soils and certain waste-derived materials. To comply with the 2016 order, the Soil WAP was updated in May 2017, May 2018, and May 2019. This Order requires the Discharger to update the Soil WAP as needed to incorporate updated regulatory soil screening criteria. This Order supersedes the provisions of General Orders R8-2014-0006 and R8-2016-0052, specifically as applied to the Facility.

17. **Waste-Derived Materials** – Waste-derived materials are waste materials that have been treated, processed, or otherwise re-conditioned so that the material may be beneficially reused for structural, engineering, or other alternative purposes. Waste-derived materials include, but are not limited to, tire-derived aggregate, compost and other green materials, construction and demolition debris fines, and contaminated soils. In accordance with Title 27, section 20686 and section 20690, this Order allows the beneficial reuse of waste-derived materials at the Facility as alternative daily cover (ADC), alternative intermediate cover, final cover foundation layer, liner system operations layer, landfill gas collection trench fill, construction fill, road base, wet weather operation pads and access roads, and soil amendments for erosion control and landscaping. However, this Order requires that beneficial reuse of new waste materials or waste-derived materials, including those prescribed under Title 27, section 20690, subdivision (b), must be evaluated and approved by Santa Ana Water Board staff, on a case-by-case basis for water quality protection.

18. **Treated Wood Waste** – In August 2021, the California Legislature adopted Assembly Bill 332 (AB 332), which allows disposal of treated wood waste at composite-lined units of Class III landfills in California. *Treated wood*, as defined in Health and Safety Code section 25230.1, means wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, fungi, microorganisms, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136 et seq.). Chemicals used to treat wood may include chromated copper arsenate, ammoniacal copper zinc arsenate, or chromated zinc chloride. *Treated wood waste* (TWW) means wood waste that meets the requirements described in Health & Safety Code section 25230.2.

Health & Safety Code section 25230.11 provides that TWW may specifically be authorized by WDRs for disposal at a composite-lined Class II or Class III

MSWLF (i.e., compliant with all Subtitle D regulation effective as of Oct. 9, 1993). MSWLFs that accept TWW are required to comply with all applicable provisions of Health & Safety Code section 25230.11, subdivision (b).

19. **Cathode Ray Tube (CRT) Panel Glass** – In October 2018, the DTSC adopted final regulations allowing the disposal of CRT panel glass at approved landfills, regulated by Regional Water Boards. These final regulations replace the emergency regulations previously adopted in 2014 and 2016. As stated in CCR, Title 22, section 66261.4, subdivision (h), CRT panel glass that meets the disposal criteria specified in Title 22, section 66273.81 is not a hazardous waste, and may be disposed of at a composite-lined waste management unit of a Class III landfill, provided that it is managed in accordance with the standards specified in Title 22, section 66273.73 and section 66273.75.

20. In October 2015, Santa Ana Water Board staff approved the WAP to allow CRT panel glass disposal (CRT WAP) at the Facility. This Order continues to allow the Facility to accept CRT panel glass waste for disposal in accordance with the Facility's CRT WAP and its updates.

21. The Discharger has developed the Waste Acceptance Policy Guide and internal operating procedures to screen, accept, and manage the allowable waste types for disposal at the Facility and other MSW landfills it operates.

Site Background and History

22. **Regional and Site Geology** – The Facility is located on the south-central flank of a range of low hills named "The Badlands" in the northeastern portion of the Peninsular Ranges. The Facility is located approximately 1.2 miles northeast of the San Jacinto fault zone. Deformation associated with movement along the San Jacinto fault zone has uplifted and tilted sedimentary strata to form "The Badlands". Erosion of the uplifted strata has resulted in deeply incised terrain of narrow canyons and ridges with steep-sided hills. The Facility is underlain primarily by the sedimentary bedrock of the San Timoteo Formation (Pliocene and Pleistocene Age). Relatively thin deposits of Holocene age alluvium occur as infilling along the canyon bottoms, and colluvial deposits occur generally along the sides of the canyons. The thickness of alluvium in the area of the Facility is variable, generally ranging from 2 feet to 20 feet. Landslide deposits occur locally in some canyons.

23. **Local Faulting** – Faulting in the Facility footprint and surrounding vicinity was identified as Faults 1,2,3, and 4, as shown in **Figure 1 of Monitoring and Reporting Program R8-2025-0006 (the MRP),** in a 1991 investigation performed by Gary S. Rasmussen & Associates. The investigation concluded that a primary or secondary ground rupture may occur along Fault 1 near the southwestern corner of the Facility during the lifetime of Phase 1 waste disposal area. The Discharger is restricted from developing the landfill within the

southwest corner of the Facility. Faults 2 and 3 are not considered active faults. Additional geologic evaluation of faulting and investigation was conducted by Rasmussen in 2001, primarily to evaluate the presence and state of activity of Fault 4. The investigation concluded that Fault 4 is not considered an active fault.

24. **Regional and Site Hydrogeology** – The San Timoteo Badlands, in which the Facility is located, is not situated within a delineated groundwater basin. The Badlands are bounded principally by two groundwater basins (also known as groundwater management zones in the Basin Plan): San Timoteo to the north, and San Jacinto-Lower Pressure to the South. The San Timoteo groundwater basin is part of the Upper Santa Ana Watershed and the San Jacinto-Lower Pressure groundwater basin is part of the San Jacinto Watershed. Fault 3 affects groundwater flow in the northern portion of the Facility and functions as a groundwater barrier, where groundwater elevations decrease up to 140 feet across the fault. The fault also functions as a groundwater divide, where groundwater flows to the northeast and the south on opposite sides of the fault. North of Fault 3, groundwater flows north, with a hydraulic gradient of approximately 0.02 foot/foot and at a flow rate of approximately 0.054 foot/day. South of Fault 3, groundwater flows south/southwest, with a hydraulic gradient of approximately 0.04 foot/foot at a flow rate of approximately 0.11 foot/day. Groundwater flow directions at the site are shown in **Figure 1 of the MRP**.

25. **Surface Drainage** – Surface water that drains from the Facility is tributary to the San Jacinto River, Reach 4.

26. **Receiving Water Bodies** – Groundwater flow beneath the Facility property is divided by Fault 3. North of Fault 3, groundwater flows north into the San Timoteo Groundwater Management Zone; south of Fault 3, groundwater flows south/southwest into the San Jacinto-Lower Pressure Groundwater Management Zone.

27. **Average Annual Precipitation** – The Facility is in an arid to semi-arid environment. Average annual precipitation from 2009 to 2021 for the site is estimated to be approximately 10.35 inches measured by Riverside County Flood Control and Water Conservation District's Badlands Gage (station #437), located onsite.

28. **Waste Containment System Design** – Title 27, section 20330 and Part 258, stipulate that a WMU waste containment system (WCS) which includes a composite liner of a prescriptive standard design (PSD) must be installed for lateral expansion beyond the October 1993 waste footprint at MSWLFs. This PSD must include, at a minimum, an upper synthetic geomembrane liner that is at least 40-mil (or 60-mil thick if a high-density polyethylene geomembrane liner is used), and a lower component of soil that is at least 2 feet thick with a hydraulic conductivity of no more than (≤) $1x10^{-7}$ centimeters per second (cm/s).

29. **Engineered Alternative Design** – Title 27, section 20080 allows for engineered alternative designs (EADs) to the PSD for a WCS, provided that the performance criteria contained in Part 258.40, subdivisions (a)(1) and (c) and Title 27, section 20080, subdivision (b), are satisfied. In compliance with federal Subtitle D regulations and the existing WDRs, the Discharger has equipped each WMU at the Facility with a WCS for each lateral landfill expansion since October 9, 1993. In accordance with Title 27, section 20080, subdivision (b), the Santa Ana Water Board has approved the following minimum required EADs to the PSD for the base and sideslope liner systems, from bottom up, at the Facility.

Table 2 – Approved Engineered Alternative Designs (EADs)

PSD	EAD B1	EAD B2	EAD B3	EAD SS1
Prepared subgrade	Prepared subgrade	Prepared subgrade	Prepared subgrade	Prepared subgrade
Min. 24-inch (in.) compacted clay liner (CCL, ≤1x10^{-7} centimeter/second, cm/s)	Min. 12-in. low permeability layer (LPL, ≤1x10^{-6} cm/s); Min. 60-mil HDPE (moisture barrier); and Geosynthetic Clay Liner (GCL)	Min. 24-in. CCL	Min. 12-in. LPL; Min. 60-mil HDPE geomembrane (moisture barrier); and GCL	GCL
Min. 60-mil high density polyethylene (HDPE) geomembrane	Min. 60-mil HDPE geomembrane	Min. 60-mil HDPE geomembrane	Min. 60-mil HDPE geomembrane	Min. 60-mil HDPE geomembrane
Cushion geotextile	Min. 12-ounce per square yard (oz/sy) (non-woven needle-punched) cushion geotextile	Min. 12-oz/sy (non-woven needle-punched) cushion geotextile	Min. 12-oz/sy (non-woven needle- punched) cushion geotextile	Min. 16-oz/sy cushion and drainage geotextile
Min. 12-in. leachate collection and removal system (LCRS) drainage layer	Min. 12-in. LCRS drainage layer with hydraulic conductivity ≥1 cm/s (1-in. minus clean gravels with less than 2% fines and no angular or subangular particles > 3/8-in. size)	Min. 9-in. LCRS drainage layer with hydraulic conductivity ≥1 cm/s	Min. 9-in. LCRS drainage layer with hydraulic conductivity ≥1 cm/s	Not applicable
Geotextile filter fabric	Min. 8-oz/sy geotextile filter fabric	Min. 8-oz/sy geotextile filter fabric	Min. 8-oz/sy geotextile filter fabric	Not applicable
Min. 24-in. protective cover soil layer (PCS)	Min. 24-in. PCS (3-in. minus for the lower 12 inches and 6-in. minus for the upper 12 inches)	Min. 24-in. PCS (3-in. minus for the lower 12 inches and 6-in. minus for the upper 12 inches)	Min. 24-in. PCS (3-in. minus for the lower 12 inches and 6-in. minus for the upper 12 inches)	Min. 24-in. PCS (1-in. minus material)

30. Currently, approximately 38 acres of the waste disposal footprint at the Facility (which delineates the pre-Title 27, October 1993 waste footprint) are unlined, approximately 96.3 acres of the waste disposal footprint (Phase 1, Canyons 1 through 4) are lined, 34 acres of P2S1 WMU is lined, and approximately 223 acres of the waste disposal footprint (P2S2 through P2S9) are proposed. In compliance with federal Part 258 (Subtitle D) regulations and the existing WDRs, the Discharger has equipped each WMU, except for C1P1, at the Facility with a WCS for each lateral landfill expansion. The liner system for WMU C1P1 was installed prior to October 9, 1993, the effective date of Subtitle D regulations; therefore, exempted from meeting Subtitle D requirements. The liner systems, from bottom up, installed for Phase 1 and P2S1 WMUs at the Facility are summarized below:

Table 3 – As-Built Liner Systems for WMU Bottoms and Sideslopes

Phase	Date Completed	Planar Area (Acres)	Liner Description (Bottom to Top)
Phase 1, C1P1 (bottom)	1993	6.06	1.5-foot (ft.) thick CCL ($k=1x10^{-7}$ cm/s); Geotextile; Drainage gravel; Geotextile; PCS
Phase 1, C1P1 (sideslope)			6.7-ft. thick CCL; PCS
Phase 1, C2P1 (bottom)	September 1995	3.31	2-ft. thick CCL; 80-mil double-sided, textured HDPE geomembrane: 12-in. thick drainage gravel layer; 8-oz/sy non-woven filter; geotextile; and 2-ft. thick PCS
Phase 1, C2P1 (sideslope)			GCL; 80-mil HDPE geomembrane; 16-oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C1P2 (sideslope)	April 1996	1.80	6.7-ft. thick CCL; 80-mil HDPE geomembrane; 16-oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C2P2 (flat bench)	April 1996	5.07	2-ft. thick CCL; 80-mil HDPE geomembrane; Drainage Mat (Geonet); and 2-ft. thick PCS
Phase 1, C2P2 (sideslope)			GCL; 80-mil HDPE geomembrane; 16-oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C1P3 and C2P3 (sideslope)	May 1997	6.99	GCL; 80-mil thick HDPE geomembrane; 16 oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C2P4 (sideslope)	August 1998	0.96	GCL; 80-mil thick HDPE geomembrane; 16-oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C4P1 (bottom)	August 1998	3.75	2-ft. thick CCL; 80-mil double-sided, textured HDPE geomembrane; 12-in. thick drainage gravel layer; 8-oz/sy non-woven filter geotextile; and 2-ft. thick PCS
Phase 1, C4P1 (sideslope)			GCL; 80-mil HDPE geomembrane; 16-oz/sy non-woven geotextile; and 2-ft. thick PCS

Phase	Date Completed	Planar Area (Acres)	Liner Description (Bottom to Top)
Phase 1, C3P1 (bottom)	February 2000	26.97	2-ft thick CCL; 80-mil double-sided, textured HDPE geomembrane; 12-in. thick drainage gravel layer; 8-oz/sy non-woven filter geotextile; and 2-ft. thick PCS
Phase 1, C3P1 (sideslope)			GCL; 80-mil HDPE geomembrane (single-sided, textured, except on the 1st westerly & easterly slopes, double-sided, textured); 16-oz/sy non-woven geotextile; and 2-ft. thick PCS
Phase 1, C4P2 (bottom)	November 2003	21.00	1-ft. thick LPL; 40-mil double-sided, textured HDPE geomembrane; GCL; 60-mil double-sided, textured HDPE geomembrane; 12-in. thick drainage gravel layer; 8-oz/sy non-woven filter geotextile; and 2-ft. thick PCS
Phase 1, C4P2 (sideslope)			GCL; 80-mil single-sided, textured HDPE geomembrane; and 2-ft. thick PCS
Phase 1, C4P2 (1:1 eastern sideslopes)			Shotcrete; 32-oz/sy Geotextile; GCL; 80-mil thick single-sided, textured HDPE geomembrane; and 2-ft. thick PCS
Phase 1, C4P3 (bottom)	November 2014	13.70	2-ft thick CCL; 60-mil double-sided, textured HDPE geomembrane; 12-oz/sy Geotextile; 9-in. thick drainage gravel layer; 8-oz/sy Geotextile; and 2-ft. thick PCS (maximum 3-in. particle size)
Phase 1, C4P3 western slope (non-encapsulated)			GCL; 60-mil thick single-sided, textured HDPE geomembrane; 16-oz/sy Geotextile; and 2-ft. thick PCS (maximum 1-in. particle size)

Phase	Date Completed	Planar Area (Acres)	Liner Description (Bottom to Top)
Phase 1, C4P3 eastern slope (encapsulated)			60-mil double-sided, textured HDPE geomembrane; GCL; 60-mil double-sided, textured HDPE geomembrane; 16-oz/sy Geotextile; and 2-ft. thick PCS (maximum 1-in. particle size)
Phase 1, C2P5 and C3P2 (1.5:1 sideslopes)	April 2021	7.0	Coated GCL; 60-mil single-sided, textured HDPE geomembrane; 16-oz/sy Geotextile; and 2-ft. thick PCS (maximum 1-in. particle size)
Phase 2, Stage 1 (bottom, EAD B2)	February 2025	2.5	24-in. thick CCL (k_{sat} = ≤1 x 10^{-7} cm/s) 60-mil double-sided, textured HDPE Geomembrane 12-oz/sy Non-woven Geotextile 12-in. thick drainage gravel layer 8 oz/sy Geotextile 2-in. thick PCS (3” minus particle size) 12-in thick PCS (6” minus particle size)
Phase 2, Stage 1 (bottom, EAD B3)	February 2025	2.5	12-in. thick LPL (k_{sat} = ≤1 x 10^{-6} cm/s) 60-mil (double-sided, textured HDPE Geomembrane GCL 60-mil double-sided, textured HDPE Geomembrane 12-oz/sy Non-woven Geotextile 12-in. thick drainage gravel layer 8 oz/sy Geotextile 12-in. thick PCS (3” minus particle size) 12-in thick PCS (6” minus particle size)
Phase 2, Stage 1 (sideslope)	February 2025	29	GCL (coated bottom; 40-mil min.) 60-mil single-sided, textured HDPE geomembrane 16-oz/sy Non-woven Geotextile 24-in. thick PCS (1” minus particle size)

31. **Phase 2 WMU Expansion** – The Discharger proposes to use approved engineered alternative designs (EADs) in **Table 2** for waste containment or liner systems for Phase 2 WMU expansion. Liner system construction in P2S1 was completed in February 2025; P2S2 WMU expansion is scheduled for 2028. This Order continues to require the Discharger to submit an amended Report of Waste Discharge for a new or proposed EAD, for approval by the Santa Ana Water Board.

32. **Construction Quality Assurance** – Pursuant to Title 27, sections 20323 and 20324, the Discharger is required to prepare and implement a Construction Quality Assurance Plan (CQA Plan) for all liner system installation projects. This CQA Plan shall describe a CQA program intended to ensure construction of a liner system in conformance with the approved construction documents and design specifications, and to identify and correct any problems or defects associated with the liner system and its construction. The goal of the CQA program is to prevent any potential damage, tears, or other imperfections in the base and side slope liner systems during manufacture, construction, and installation.

33. **Five-Foot Separation Zone** – Title 27, section 20240, subdivision (c) stipulates that there shall be a five-foot separation zone between MSW and the highest anticipated elevation of underlying groundwater. Accordingly, WMU liner designs are required to incorporate subdrain systems beneath liner systems to ensure that a 5-foot zone of separation is maintained between groundwater and the lowest element of the liner system. The depth to groundwater at the Facility is more than 17 feet below ground surface (bgs), thus providing well more than the minimum separation.

34. **Depth to groundwater** varies in the groundwater basins north and south of the Facility. Groundwater can be found very close to the surface in San Timoteo Canyon; in fact, groundwater discharges to the surface have occurred in the past. In the broad alluvial valleys north and south of the Facility, depth to groundwater ranges on the order of 100 or more feet bgs. In the Badlands, particularly along the ridge crests, depth to groundwater can exceed 400 feet bgs. Within the canyon, depth to groundwater has been measured as shallow as 17 feet bgs.

35. **Environmental Control Systems** – Existing environmental control systems at the Facility include a leachate collection and removal system (LCRS), landfill gas (LFG) extraction and collection system, landfill gas condensate collection and conveyance system, leachate and condensate containment systems, perimeter gas probe monitoring system, and groundwater monitoring well network.

36. **Leachate Collection and Removal System** – The existing LCRS for Phase 1 consists of a network of high-density perforated and non-perforated polyethylene collection pipes installed within the LCRS drainage gravel layer sitting above the

canyon floor composite liner system, draining by gravity from Phase 1, C1P1 and terminating at the lowest elevation point at Phase 1, C4P3. The lowest point is designed as a leachate sump, where the leachate is temporarily collected, pumped, and stored in one of the three, 10,000-gallon aboveground storage tanks, equipped with a secondary containment system. Leachate is used for dust control over the composite-lined WMUs at the Facility. The proposed LCRS for Phase 2 will be designed similarly to gravity-drain, collect, and convey leachate from Stages 1 through 9 by way of two collection systems (East and West LCRS) to sumps, pumps, and be stored in above-ground leachate tanks for dust control use over lined WMUs.

37. **Landfill Gas Extraction and Collection System** –The LFG extraction and collection at the Facility officially began in January 2001. The collection system consists of vertical collection wells in the unlined WMU and a combination of vertical and horizontal collection wells in the lined WMUs. The current gas collection system consists of 68 active vertical wells, 54 active horizontal wells, and 20 horizontal inactive wells that are connected to the gas collection system. Additional gas extraction wells and perimeter gas monitoring probes will be installed as the Facility expands.

38. **Landfill Gas Condensate Collection** – Gas condensate collected and removed are diverted to one of the three above-ground 10,000-gallon storage tanks, equipped with a secondary containment system at the Facility. Gas condensate collected at the Facility is used for dust control over the composite-lined WMUs.

Monitoring

39. **Water Quality Protection Standard** – A Water Quality Protection Standard (WQPS) is the analytical framework through which WMUs are individually monitored for releases and impacts to water quality. (Title 27, section 20390, subdivision (a).) Under Title 27, a WQPS is ordinarily separately established for each WMU in WDRs, though contiguous WMUs may be monitored together. (*Id*.) In accordance with Title 27, this Order, by virtue of its incorporation of **the MRP** and subsequent revisions thereto (collectively referred to as the operative MRP), establishes a WQPS for each WMU at the Facility.

40. **Groundwater Monitoring** – Pursuant to Title 27, section 20385, the Discharger is required to perform monitoring for each WMU at the Facility. The Discharger has been conducting water quality monitoring since 1989. Currently, the Discharger is implementing a groundwater Detection Monitoring Program (DMP) at the Facility in accordance with Title 27, section 20385, subdivision (a)(1) and section 20420, and the operative MRP. The following wells are currently sampled semi-annually and measured quarterly to obtain groundwater levels as part of the DMP at the Facility: BL-03, BD-04, BH-11, BH-21, BH-22, BH-23, BH-24, and BH-25. Two additional wells BH-20 and BH-CP, are monitored quarterly to obtain groundwater level measurements only. These groundwater monitoring wells or

points are depicted in **Figure 1 of the operative MRP.** As WMU expansion progresses in Phase 2, additional groundwater monitoring wells will be installed to comply with Title 27, section 20415.

41. **Presence of Known Contamination** – At the Facility, volatile organic compounds (VOCs) such as acetone, 2-butanone (MEK), chloroform, and tetrachloroethene (PCE) had been detected in several groundwater monitoring wells in 1995, 2001, 2003, and 2004. Further analyses of the data showed that these indications of release were attributable to well installation/development or laboratory contamination. Since it was concluded that the detections of VOCs at the Facility were not attributable to the landfill operations, the Facility remains in detection monitoring in accordance with Title 27, section 20420.

42. **Vadose Zone Monitoring** – Pursuant to section 20415, subdivision (d) of Title 27, the Discharger is required to establish a monitoring system for the unsaturated zone (vadose zone) for each WMU at the Facility. Currently, the Discharger monitors the vadose zone at the Facility through soil-pore gas probes on-site. (See MRP, **Table 2** and **Figure 1** herein.) As part of the monitoring program for the Facility, the Discharger is required to continue monitoring these soil-pore gas probes for methane, oxygen, and carbon dioxide in the field in accordance with SCAQMD Rule 1150.1 and collect soil gas samples for VOC analysis semi-annually. Data generated from these monitoring activities will be evaluated and used for advising groundwater monitoring activities.

43. **Leachate and Landfill Gas Condensate Monitoring** – It is generally understood that there is a connection between groundwater contamination and the contaminants in landfill leachate and landfill gas condensate. Consequently, constituents detected in leachate and gas condensate are considered potential threats to water quality upon release from the Facility. Based upon this connection, the Discharger has been monitoring and will continue to be required to monitor landfill leachate and gas condensate at monitoring points as shown in **Table 2 of the operative MRP**. The requirements for monitoring frequency and the analytical constituents are specified in the operative MRP. Results from these monitoring activities are evaluated and utilized as specified in the operative MRP to direct groundwater monitoring activities.

Other

44. **Drainage and Erosion Control** – Surface drainage control facilities at the Facility are designed, constructed, and maintained to collect and divert rainfall runoff resulting from a 100-year, 24-hour frequency storm event. The Facility's drainage control system is designed to divert run-on away from the WMUs and route onsite surface runoff away from the WMUs. Onsite drainage is controlled by lateral sheet flow and by intercepting berms and benches. Sheet flow erosion is minimized by reducing velocity and discharge using a shallow gradient on top deck areas and by limiting the size of runoff areas as much as possible. Benches

intercept sheet flow runoff from side slopes to prevent excessive erosion. Runoff on benches is directed to downdrains, drainage channels, and culverts that lead to sedimentation basins. Vegetation and shredded greenwaste mulch are examples of erosion control measures applied on sideslopes at the Facility.

45. **Daily and Intermediate Cover Materials** – The Facility utilizes a minimum of 6 inches of compacted soil as daily cover material and approved alternative daily cover (ADC) materials, which include geosynthetic blankets or high tensile strength polyester tarps coated with high density polyethylene (HDPE) and processed green material, at the end of each working day. A layer of at least 12 inches of compacted intermediate soil cover is placed on all landfill surfaces where no additional refuse will be deposited within 180 days.

46. **Post-Closure Land Use** – The proposed post-closure land use has not been determined at this time. However, any post-closure land use would have to be compatible with the protection of the closed facility and the environment from landfill releases. This will be addressed in the final site closure and post-closure maintenance plans, at which the Discharger will conduct an environmental study to comply with the California Environmental Quality Act (CEQA). The Facility is currently estimated to close in July 2059.

47. **Preliminary Closure and Post-Closure Maintenance Plans** – Title 27, section 21769, subdivision (b)(1) requires the Discharger to prepare a preliminary closure and post-closure maintenance plan for the Facility to enable development of a reasonable estimate of the maximum costs expected for a third party to close the Facility and to implement the first thirty years of post-closure maintenance. In its Report of Disposal Site Information (JTD No. 11), dated June 2022, the Discharger included the Preliminary Closure and Post-closure Maintenance Plan (JTD No. 12). The Facility is estimated to close in July 2059. The Discharger plans to close the Facility as a single WMU and is proposing a monolithic final cover (a 4-foot cover on top deck and a 3-foot cover on sidelslopes), an engineered alternative design closure cover. The Facility will remain an open space after site closure. In addition, the Discharger included a cost estimate in JTD No. 12 for implementing these plans.

48. The Discharger has indicated in its Preliminary Closure & Post-closure Maintenance Plan that after completion of site closure construction, it will file with the Recorder of the Riverside County that the future use of the Facility is restricted in accordance with its Post-closure Maintenance Plan (PCMP), including any other post-closure land use alternatives approved in writing by the responsible regulatory agencies. In addition, deed notation shall be added to property profile to include, in perpetuity, a notation advising any potential purchaser of the property that:

    a. The parcels have been used as an MSW landfill;

b. Unless other post-closure land use alternative(s) are approved via a JTD Addendum by CalRecycle and the Santa Ana Water Board, the land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the PCMP; and

c. If the Discharger defaults in carrying out either the PCMP or any corrective action needed to address a release, the responsibility for carrying out such work falls to the property owner, if other than the Discharger.

49. **Financial Assurance** – Title 27, sections 22207 and 22212 require that the Discharger establish a fund (financial assurance) to ensure implementation of the closure and post-closure maintenance plans. In JTD No. 12, the Discharger provided documentation demonstrating the establishment and maintenance of an enterprise fund for implementing the subject plans.

50. **Implementation of Water Quality Control Plan** – Water Code section 13263, subdivision (a) requires that waste discharge requirements implement relevant water quality control plans. The requirements contained herein are intended to assure compliance with the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), including water quality objectives (WQOs) and beneficial uses.

51. **Santa Ana Region Basin Plan** – The Santa Ana Water Board adopted a revised Basin Plan that became effective on January 24, 1995. The Basin Plan specifies beneficial uses and water quality objectives for waters in the Santa Ana Region. The water quality objectives and the groundwater basin boundaries, now known as groundwater management zones, were updated in February 2016.

52. **Industrial General Storm Water Permit** – Stormwater discharges from the Facility are regulated by the General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit or IGP), Order No. 2014-0057-DWQ, as amended by Order No. 2015-0122-DWQ, and the 2018 Amendment documents (NPDES Permit No. CAS000001). Construction activities associated with landfill operations, maintenance, improvement, or development projects (such as expansion) at the Facility are also covered under the IGP. The Discharger has enrolled the Facility under the IGP (WDID 8 33I000634) for stormwater discharges from the site.

53. **Public Notification** – The Santa Ana Water Board has notified the Discharger and interested agencies and persons of the Santa Ana Water Board's intent to update the existing waste discharge requirements and has provided them with an opportunity to submit their written views and recommendations.

54. **Assembly Bill 2108** – Water Code section 13149.2 subdivision (d) requires that the Santa Ana Water Board, “[w]hen issuing … individual [WDRs] … that

regulate activity or a facility that my impact a disadvantaged[1] or tribal[2] community, and that includes a time schedule in accordance with subdivision (c) of section 13263 for achieving an applicable [WQO], an alternative compliance path that allows time to come into compliance with [WQOs], or a water quality variance…," must include finding(s) regarding "potential environmental justice, tribal impact, and racial equity considerations" that are relevant to the permitting action. This Order does not incorporate a time schedule for compliance with applicable WQOs, or any of the other provisions described in Water Code section 13149.2, subdivision (d). Accordingly, no additional findings are necessary per section 13149.2.

55. **Public Hearing** – The Santa Ana Water Board, in a public meeting, heard and considered all comments pertaining to updating the existing WDRs for the Facility.

56. **California Environmental Quality Act (CEQA)** – On April 12, 2022, the Discharger, as the lead agency under the CEQA (Pub. Resources Code, § 21000 et seq.), conducted an Initial Study and adopted an MND, EA 2017-03 (State Clearinghouse No. 201049142), for the BLIP. The lead agency filed a Notice of Determination with the County Clerk at County of Riverside on April 12, 2022.

The Santa Ana Water Board is a responsible agency under the CEQA for the purposes of issuing this Order. As a responsible agency, the Santa Ana Water Board is "responsible for considering only the effects of those activities involved in a project which it is required by law to carry out or approve." (Pub. Resources Code, section 21002.1, subdivision (d).) In approving this Order, the Santa Ana Water Board has considered the MND adopted by the Discharger and subsequent information provided by the Discharger. The Santa Ana Water Board finds that compliance with the mitigation measures of the MND and waste discharge requirements in this Order will reduce potentially adverse impacts to water quality to a less than significant level and protect beneficial uses of receiving waters.

57. **Antidegradation Policy**—The State Water Board's *Statement of Policy with Respect to Maintaining High Quality Waters in California*, Resolution 68-16

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[1] For the purposes of this requirement, a "disadvantaged community" is defined as a "community in which the median household income is less than 80 percent of the statewide annual median household income level." (Wat. Code section 13149.2, subd. (f)(1).)

[2] For the purposes of this requirement, a "tribal community" is defined as a "community within a federally recognized California Native American tribe or non-federally recognized Native American tribe on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004." (Wat. Code section 13149.2, subd. (f)(2).)

(*Antidegradation Policy*) prohibits the Santa Ana Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger's best practicable treatment or control.

Consistent with Title 27, this Order requires the Discharger to maintain the Facility to contain waste within WMUs, thereby preventing degradation of water quality. To the extent that there are releases from WMUs, the Discharger will be required to address such releases through a Corrective Action Program. (See Title 27, sections 20385, 20415, 20430.) Because this Order does not authorize any degradation in water quality from WMU discharges, it complies with the *Antidegradation Policy*.

Additionally, to the extent that this Order authorizes waste discharges outside the footprint of established WMUs, or otherwise outside of established WCSs (e.g., per the Discharger's approved WAP), no degradation in water quality will occur as a result of such discharges.

58. **Delegation of Authority** – This Order delegates authority to the EO of the Santa Ana Water Board to:

a. Require the Discharger to revise the existing waste acceptance plans or develop a new plan and/or methods and procedures for accepting, monitoring, managing, reusing and/or disposing, and reporting of MSW such as contaminated soils, and new waste materials or waste-derived materials at the Facility in response to newly discovered or developed information and/or regulatory or industrial standards and guidelines.

b. Require additional liner design beyond the minimum design approved to protect water quality based on new information and/or technology available and best industrial practices.

c. Revise the operative MRP to incorporate modifications to the monitoring and reporting requirements for the Facility.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267: that WDR Order R8-2020-0003 is rescinded (except for enforcement purposes); and that the Discharger shall comply with the following requirements. Additionally, this Order shall supersede the provisions of Orders R8-2014-0006 and R8-2016-0052, as specifically applied to this Facility.

A. Discharge Specifications

1. **Control of Wastes** – All wastes shall be maintained on property owned or controlled by the Discharger.

2. **Groundwater** – Waste discharges at the Facility shall not cause or contribute to the contamination or pollution of groundwater, as indicated by the most appropriate statistical or non-statistical data analysis and retest methods.

3. **Acceptable Waste** – Waste disposed to WMUs at the Facility shall be limited to MSW, nonhazardous solid waste, liquids or semi-solid waste, nonhazardous contaminated soils, incinerator ash, inert solid wastes, treated wood waste, and designated wastes. CRT panel glass constitutes a nonhazardous solid waste, provided that it is managed according to a plan approved by the EO. Wastes meeting the following conditions shall be accepted for disposal at the Facility:

    a. **MSW** - MSW is defined in Title 27, section 20164 and Part 258.2 as household waste.

    b. **Nonhazardous Solid Waste** – Nonhazardous solid waste, as defined under Title 27, section 20220, subdivision (a), means all putrescible and non-putrescible solid, semi-solid and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and other discarded wastes (whether of solid or semi-solid consistency), provided that such wastes do not contain wastes which must be managed as hazardous wastes or wastes that could cause degradation of waters of the state.

    c. **Liquids or Semi-Solid Waste** – Liquids or semi-solid waste (i.e. waste containing less than 50 percent solids, by weight or high moisture content waste), including sewage treatment plant grit and screening residues, dewatered sewage sludge, water treatment

sludge, provided that the criteria in Title 27, section 20200, subdivision (d) are met.

d. **Nonhazardous Contaminated Soils** – Nonhazardous contaminated soils meeting waste acceptance criteria in the approved WAP may be accepted for disposal or reuse at the Facility provided that it is accepted, disposed, or reused in accordance with Section A.4 below.

e. **Incinerator ash** – Incinerator ash may be accepted unless DTSC determines that the waste must be managed as hazardous waste. Incinerator ash shall be managed to prevent the discharge of any soluble pollutants at concentrations in excess of applicable water quality objectives.

f. **Inert Waste** – Inert waste, as defined in Title 27, section 20230, means that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of organic, putrescible, or decomposable waste.

g. **Treated Wood Waste** – Treated Wood Waste (TWW) may be accepted for disposal at the Facility, provided that it is managed and disposed of in accordance with the conditions and requirements stated in Health & Safety Code section 25230.11. If monitoring at a composite-lined WMU that has received TWW indicates a release, the disposal of TWW to that WMU shall immediately cease until corrective action, implementing the requirements of Title 27, section 20385, results in cessation of the release.

h. **Cathode Ray Tube (CRT) Panel Glass** – CRT panel glass is a nonhazardous waste and may be accepted for disposal at the Facility provided that it is managed in accordance with Title 22.

i. **Designated Waste** – Acceptance of designated wastes for disposal at the Facility shall be evaluated and approved by the EO of the Santa Ana Water Board on a case-by-case basis. A designated waste that meets the following criteria, as defined in Water Code section 13173, that are approved by the EO of the Santa Ana Water Board may be authorized for disposal at all composite-lined WMUs, except for Phase 1, Unlined and C1P1 WMUs:

   i. **DTSC Variance** – The waste has been granted a variance by the DTSC for disposal at a composite-lined unit of the

Facility, and the Discharger has developed procedures for acceptance, management, and disposal of the waste. To satisfy this requirement, the Discharger shall provide satisfactory documentation that establishes necessary acceptance, management and disposal procedures for disposal of the proposed designated waste; or

ii. **Satisfactory Documentation for Soluble Pollutants** – The waste shall not release soluble pollutants in concentrations exceeding applicable water quality objectives in groundwater. To satisfy this requirement, the Discharger shall provide satisfactory documentation demonstrating compliance with Title 27, section 20200, subdivision (a).

4. **Waste Acceptance Program (WAP) for Disposal or Reuse of Contaminated Soils** – The Discharger shall continue to implement its Waste Acceptance Program (WAP) for contaminated soils as approved by the Santa Ana Water Board's EO to continue accepting, managing, and disposing of contaminated soils at the Facility within composite-lined WMUs. Contaminated soils meeting the soil reuse criteria in the WAP may be used within the Facility permitted limit. The WAP and associated programs and plans shall be updated, when deemed necessary by the EO, to address new information, regulations, and guidance documents for best management practices in waste acceptance, management, disposal, reuse, and monitoring in achieving compliance with requirements in this Order. The WAP for contaminated soils may be incorporated into a landfill-specific WAP that encompasses acceptance criteria for various other types of waste materials.

5. **Waste-Derived Materials** – Nonhazardous waste-derived materials may be accepted at the Facility for onsite reuse provided that the following requirements are met:

a. **Case-by-Case Approval of Waste-derived Material Reuse** – The beneficial reuse of waste materials or waste-derived materials at the Facility, excluding contaminated soils, shall be evaluated and approved by Santa Ana Water Board staff on a case-by-case basis.

b. **Interim Cover** – For use as interim cover (which includes daily cover and intermediate cover), waste-derived materials shall be designed, managed, and constructed to minimize percolation of liquids through waste as required under Title 27, section 20705, subdivision (b).

c. **Limitations for Use as Cover Materials** – Waste-derived materials used for interim cover shall meet the requirements in Title

27, section 20705, subdivision (e) to minimize pollutant discharge to waters of the state.

d. **Demonstration or Justification** – For any proposals to use a waste-derived material as an interim cover, the Discharger shall complete either of the following:

i. Perform a demonstration with the proposed materials for use as an alternative cover and submit a performance evaluation report for approval by Santa Ana Water Board staff; or

ii. Provide satisfactory documentation and justification for use of proposed materials as an alternative cover for review and approval by Santa Ana Water Board staff.

6. **Disposal and Usage of Onsite Liquids** – The discharge of onsite liquids, including extracted groundwater, leachate, landfill gas condensate, and wastewater, or their use for dust control or irrigation at the Facility shall meet the following conditions:

a. The liquids that are being returned to, or reused at, the Facility originated at the Facility;

b. The portion of the Facility to which these liquids are discharged is equipped with a composite liner and leachate collection and removal systems or approved equivalent;

c. The liquids are reused and/or disposed of in accordance with a disposal and management plan approved by the EO of the Santa Ana Water Board; and

d. Restrictions under this section shall not apply to extracted groundwater, leachate, landfill gas condensate, or wastewater generated from landfill operations or other industrial activities at the Facility that is regulated or waived under a separate order or treated in accordance with a plan approved by the EO of the Santa Ana Water Board prior to being used for dust control, recharge, irrigation, or any other beneficial uses over areas beyond the landfill waste footprint at the Facility.

B. Discharge Prohibitions

1. **General** – The treatment or disposal of wastes at the Facility shall not contribute to, cause, or threaten to cause a condition of contamination, pollution, or nuisance, as defined in the Water Code section 13050.

2. **Discharge Within Existing WMUs** – The discharge of waste to any area of the Facility beyond the existing WMUs is prohibited unless such discharge is to an area equipped with a WCS in compliance with Section C.4 of this Order.

3. **Hazardous Waste Prohibition** – The discharge of hazardous waste as defined under the state hazardous waste regulations (Title 22, section 66261.3 et seq) at the Facility is prohibited.

4. **Discharges to Unlined or Non-composite lined WMUs** – TWW and other Designated Waste shall not be discharged to Unlined pre-Title 27 WMU and Phase 1, C1P1 WMU.

5. **Discharge of Pollutants into Waters of the State** – Operations and activities at the Facility shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to Title IV section 402. Further, the discharge of wastes at the Facility shall neither cause nor contribute to any surface water contamination, pollution, or nuisance, including, but not limited to:

    a. Floating, suspended, or deposited macroscopic particulate matter or foam;

    b. Increases in bottom deposits or aquatic growth;

    c. An adverse change in temperature, turbidity, or apparent color change beyond natural background levels and occurrences;

    d. The creation or contribution of visible, floating, suspended, or deposited oil or any other products of petroleum origin; and

    e. The introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of beneficial uses of the waters of the State.

6. **Liquids Restrictions** – The discharge of bulk, noncontainerized liquid waste[3], except those allowed under Part 258.28, at the Facility is prohibited.

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[3] Liquid waste means any waste material that is determined to contain “free liquids” as defined by Method 9095B (Paint Filter Liquids Test), included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846).

7. **Prohibition of Radioactive Waste** – No radioactive waste, including low level radioactive waste, as defined by the agency with jurisdictional authority, shall be disposed of at the Facility.

8. **Medical and Similar Wastes** – No infectious materials or medical or laboratory wastes, except those authorized for disposal to land by official agencies charged with control of plant, animal and human diseases shall be disposed of at the Facility.

C. Provisions

1. **Compliance with Monitoring and Reporting Program** – The Discharger shall comply with the concurrently-adopted Monitoring and Reporting Program (**MRP**), or in the event that a Revised MRP is subsequently issued by the Santa Ana Water Board EO, the provisions of the Revised MRP. For the purposes of these requirements, the MRP or Revised MRP with which the Discharger must comply shall be referred to as the "operative MRP."

2. **Maintain Copy of This Order** – The Discharger shall maintain a copy of this Order and the operative MRP at the Facility and make it available at all times to landfill operating personnel.

3. **Santa Ana Water Board Access** – The Discharger shall permit Santa Ana Water Board staff:

   a. Entry upon premises where a discharge source is located;

   b. To copy any records required to be kept under terms and conditions of this Order;

   c. To photograph or create video recordings of any structures, facilities, activities, or other phenomena that could result in adverse impacts to water quality and that are pertinent to compliance of the Facility with this Order; and

   d. To sample any discharge from the Facility.

4. **Waste Containment System (WCS)** – All WMUs shall be equipped with a waste containment or liner system that is designed, constructed, and managed in accordance with the standard of the industry, and that meets the requirements of State Water Board Resolution 93-62, Section III [Containment] and the following, but not limited to, relevant sections of Title 27 and subsequent revisions to these sections thereof:

   a. section 20310 [General Construction Criteria];

b. section 20320 [General Criteria for Containment Structures];

c. section 20323 [CQA Plan];

d. section 20324 [CQA requirements];

e. section 20330 [Liners];

f. section 20340 [Leachate Collection and Removal Systems (LCRS)];

g. section 20360 [Subsurface Barriers];

h. section 20365 [Precipitation and Drainage Controls];

i. section 20370 [Seismic Design]; and

j. section 21750, subdivision (f)(5) [Stability Analysis].

5. **Engineered Alternative Liner Design (EAD)** – An EAD that satisfies the performance criteria contained in Part 258.40, subdivisions (a)(1) and (c), and in Title 27, section 20080, subdivision (b), may be allowed where the performance of the alternative composite liner's components, in combination, equal or exceed the waste containment capability of the prescriptive system design (PSD). The Discharger has proposed, and the Santa Ana Water Board has approved the EADs for the base and sideslope liner systems, described in **Table 2** of this Order. The approved EAD is minimum design requirements; the Executive Officer of the Santa Ana Water Board may require additional liner design components beyond the minimum approved as new information, technology, or industrial best standard practices are discovered and/or new regulatory standards and guidelines are developed for effective waste containment.

6. **Approved EADs** – For each phase of liner system construction using approved EADs, the following shall apply:

a. At least 90 days prior to the scheduled WCS construction for each WMU expansion at the Facility, the Discharger shall submit technical design plans and construction documents for the proposed WCS that demonstrate compliance with Section C.4, above, for review and approval by Santa Ana Water Board staff.

b. Each phase of construction at the Facility shall be completed in accordance with the approved design and construction documents. Any liner system design or construction variance from the approved

documents must be approved by Santa Ana Water Board staff prior to implementation;

c. All mitigation measures proposed by the Discharger and approved by Santa Ana Water Board staff shall be implemented to protect water quality;

d. The Discharger and its contractors shall submit progress reports daily to Santa Ana Water Board staff during construction so that compliance with Section C.6.b., above, can be evaluated. Daily reports, including conformance testing data and relevant construction activities, shall be submitted in accordance with the criteria set forth in the applicable CQA Plan and design and construction plans;

e. The Discharger and its contractors shall submit look-ahead schedules weekly to Santa Ana Water Board staff during construction so that compliance and work progress can be tracked and evaluated. During construction, look-ahead schedules shall be submitted weekly in accordance with the criteria set forth in the applicable CQA Plan and design and construction plans, and shall delineate specific portions and areas of construction and include estimates of work progress for at least the three subsequent weeks;

f. Following completion of liner installation and construction activities and within a reasonable time approved by Santa Ana Water Board staff, the Discharger shall submit a final as-built report including, at a minimum: as-built drawings; maps; CQA/CQC field reports and testing data; a discussion on deviations from approved plans, and certification; and

g. If an approved EAD fails to perform as expected, the EO may require additional protective measures.

7. **New EAD Proposed** – In accordance with Title 27, section 21585, subdivision (a)(4), the Discharger shall submit an amended ROWD, in the form of a numerically-sequential addendum to the JTD, for any new EAD proposed for WCS at the Facility. A JTD addendum for any new EAD(s) shall demonstrate compliance with the performance criteria specified under Part 258.40, subdivisions (a)(1) and (c), and Title 27, section 20080, subdivision (b). Upon review of the amended ROWD by Santa Ana Water Board staff and approval of the newly proposed EAD(s) by the Santa Ana Water Board, the Discharger shall be permitted to use the newly approved EAD(s) for WCS construction at the Facility.

8. **LCRS Performance Testing** – In accordance with Title 27, section 20340, subdivision (d), the Discharger shall perform periodic testing of the LCRS to demonstrate its efficiency during the operational, closure, and post-closure maintenance periods of the Facility.

9. **Operating Record** – The Discharger shall maintain an operating record for the Facility in accordance with Part 258.29, subdivision (a). All records of landfill operations, construction, inspection, monitoring, remediation, and copies of design plans, CQA/QC documents, monitoring reports, and technical reports that are submitted to regulatory agencies, shall be included in the operating record.

10. **Disposal Site Operations** – The operation at the Facility shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the Facility's National Pollutant Discharge Elimination System (NPDES) permits.

11. **Disposal During Expected Precipitation** – During the months when precipitation can be expected, disposal activities shall be confined to the smallest area possible based on operational procedures and the anticipated quantity of wastes that will be received.

12. **Managing Proscribed Waste Disposal** – The Discharger shall remove and properly dispose of any wastes that are placed at the Facility in violation of the requirements in this Order.

13. **Boundary Monuments** – The Discharger shall establish and maintain permanent monuments in California coordinates (or equivalent) to define the boundary of the footprint of the Facility WMUs. The benchmarks shall be certified by a licensed surveyor or a professional civil engineer authorized to practice in California.

14. **Water Use for Operations** – Water used during landfill operations shall be limited to the minimum amount reasonably necessary for dust control, fire suppression, construction, and maintenance.

15. **Managing Wastewater During Precipitation Events** – During periods of precipitation, when the use of wastewater or non-stormwater for dust control, construction, or other landfill operations over the composite-lined WMUs is not necessary, all wastewater collected at the Facility shall be stored or disposed of offsite at a licensed facility.

16. **Expanding Groundwater Monitoring Network** – Prior to the initiation of waste discharge in the approved expansion area phases, the Discharger

shall install an approved, expanded groundwater monitoring network as necessary.

17. **Adequate Cover** – Adequate cover shall be placed over all lifts in each WMU at all times, except for the active face of the landfill, which receives daily cover or an approved ADC at the end of each operating day.

18. **Alternative Daily Cover Use** – Alternative Daily Cover (ADC) may be used consistent with Title 27, section 20690 and the provisions and specifications of this Order.

19. **Placement of Daily Cover** – At the end of each operating day or if landfilling operations cease for more than a 12-hour period, daily cover or an approved ADC must be placed over the active face in a quantity and depth sufficient to prevent any waste from daylighting or as directed by Santa Ana Water Board staff.

20. **Additional Monitoring Devices** – The Discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices determined by the EO of the Santa Ana Water Board to be necessary to comply with this Order.

21. **Expanding Landfill Gas System** – The Discharger shall expand the existing landfill gas collection and recovery system as landfill operations progress to prevent the migration of landfill gas to groundwater and to the environment.

22. **Liquid Waste Containment System Design** – All liquid waste secondary containment structures shall be designed and constructed to provide a minimum containment capacity of 110 percent (110%) of the largest storage tank.

23. **Maintaining Liquid Waste Containment System** – All liquid waste containment structures shall be inspected and maintained periodically to assess their conditions and to initiate correction actions necessary to ensure their effectiveness in preventing commingling of leachate and gas condensate with surface run-on and runoff.

24. **Facility Survey** – The Facility shall be surveyed annually by aerial surveillance or by conventional ground survey by a licensed surveyor, a registered civil engineer, or under the directions of a registered civil engineer to assure compliance with the one percent (1%) slope requirements in Section D.1, below.

25. **Executive Officer Authorization** – In implementing this Order, the Executive Officer of the Santa Ana Water Board may do any of the following, to the fullest extent authorized per Water Code section 13223:

    a. Require, based upon newly discovered or newly developed information and/or regulatory guidelines, that the Discharger revise the existing waste acceptance or management plans or develop new plans and/or methods and procedures for accepting, managing, reusing, disposing, monitoring, and reporting of the materials listed below at the Facility:

        i. Contaminated soils;

        ii. Treated wood waste;

        iii. Designated wastes;

        iv. CRT panel glass;

        v. Incinerator ash;

        vi. Liquid or semi-liquid wastes;

        vii. Waste-derived materials; and

        viii. Onsite wastewater

    b. Approve revised or new waste acceptance and management plans;

    c. Require site investigation and technical reports needed to protect water quality;

    d. Require additional liner design beyond the minimum design approved by the Santa Ana Water Board to protect water quality based on new information and/or technology available and best industrial practices;

    e. Approve new designated waste for disposal at the Facility; and

    f. Revise and incorporate changes to the operative MRP.

D. Drainage and Erosion Control

1. **Site Management for 100-Year, 24-Hour Storm** – WMUs shall be designed, constructed, and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, and washout which could occur as a result of precipitation from a 100-year, 24-

hour frequency storm. This shall be accomplished by, at a minimum, the following:

a. WMUs shall be designed, constructed, and maintained to achieve compliance with Title 27, section 20365;

b. Top deck surfaces shall be constructed and maintained to achieve a minimum of one percent (1%) slope and to direct flows to downdrains or other drainage control structures;

c. Downdrains or any other necessary drainage diversion structures must be constructed for all sideslopes as necessary; and

d. All components of The Facility drainage system must be designed, constructed, and maintained to withstand site-specific maximum intensity precipitation (peak flow) from a 100-year, 24-hour storm.

2. **Drainage and Erosion Control Measures** – The Discharger shall design, construct, and maintain:

a. A run-on drainage control system to prevent flow from off-site sources onto the disposal areas of the Facility (active or inactive portions), and to collect and divert the peak flow calculated volume resulting from a 100-year, 24-hour frequency storm from off-site sources;

b. A runoff drainage control system to collect and divert the peak flow calculated volume resulting from a 100-year, 24-hour frequency storm away from the WMUs;

c. Drainage control structures to divert natural seepage and to prevent such seepage from entering the WMUs; and

d. Erosion control best management practices to reduce the discharge of pollutants to waters of the state.

3. **Periodic Inspections** – All drainage and erosion control structures shall be periodically inspected and maintained to assess their conditions, to initiate corrective actions necessary to maintain compliance with the requirements of this Order, and to prepare the Facility in advance of each rainy season.

4. **Drawings for New Elements** – The Discharger shall submit as-built drawings within 90 days of completing construction of any new elements of the drainage control system at the Facility.

5. **Registered or Certified Supervision** – All design plans, construction plans, and operation and maintenance plans shall be prepared by, or prepared under the direct supervision of, a registered civil engineer or a certified engineering geologist.

E. Contingency Responses

1. **Liquid Waste Spill and Seep** – The Discharger shall notify Santa Ana Water Board staff by telephone or email within 24 hours (or one business day) upon discovery of any liquid waste spill or seep in the WMU area. A written report shall be filed with Santa Ana Water Board staff within seven days, containing at least the following information:

   a. **Map** – A map showing the location(s) of the discharge(s).

   b. **Flow Rate** – An estimate of the flow rate of the discharge(s).

   c. **Description** – A description of the nature and extent of the discharge(s) (e.g., all pertinent observations and analysis).

   d. **Waste Characterization** – A sample of the spilled liquid waste or seep shall be collected, if possible, and analyzed for constituents in **Tables 3-5, MRP**).

   e. **Corrective Measures** – A description of the corrective measure(s) implemented, and any proposed mitigation measures for approval by Santa Ana Water Board staff.

2. **Facility Failure** – The Discharger shall notify Santa Ana Water Board staff by telephone and/or email within 48 hours (or two business days) of any slope failure or failure of facilities necessary to maintain compliance with the requirements in this Order. Within seven days, the notification shall be submitted in writing to Santa Ana Water Board staff. Any failure that threatens the integrity of the waste containment features of the Facility shall be promptly corrected after a remediation workplan and schedule have been approved by Santa Ana Water Board staff. However, if a slope failure poses an immediate threat to the environment or to any containment structures at the Facility, it shall be corrected without delay.

3. **Special Occurrence** – The Discharger shall notify Santa Ana Water Board staff by telephone and/or email within 48 hours (or two business days) of any special occurrence at the Facility, such as a landfill fire, subsurface fire, an accidental spill etc., necessary to maintain compliance with the requirements in this Order. Within seven days, the notification shall be submitted in writing to Santa Ana Water Board staff. Any failure that threatens the integrity of the waste containment features of the landfill

shall be promptly corrected after a remediation workplan and schedule have been approved by Santa Ana Water Board staff. However, if a slope failure poses an immediate threat to the environment or to any containment structures at the Facility, it shall be corrected without delay.

4. **Measurably Significant Evidence of a Release** – If previously undetected measurably significant evidence of a release, as described in the operative MRP, has tentatively been identified in groundwater at the Facility, the Discharger shall immediately notify the designated Santa Ana Water Board staff by phone and/or email. The Discharger shall also provide written notification within seven days of such determination (Title 27, §20420, subd. (j)(1)) and shall carry out a single discrete retest in accordance with Title 27, section 20415, subdivision (e)(8)(E). The Discharger shall inform Santa Ana Water Board staff of the outcome of the retest as soon as the results are available and submit written results within seven days of receipt of the final retest laboratory report.

5. **Optional Demonstration** – If measurably significant evidence of a release is verified per Section E.4, above, but is believed to be derived from off-site source(s) or due to natural changes in water chemistry, the Discharger may propose to demonstrate that the Facility is not the cause of the release in accordance with Title 27, section 20420, subdivision (k)(7).

6. **Response to Verified Evidence of a Release** – If measurably significant evidence of a release is verified per Section E.4, above, and it is determined that the Facility is the cause of the release, then the Discharger shall:

    a. Implement those response actions described in Title 27, section 20420, subdivision (k);

    b. Implement an Evaluation Monitoring Program (EMP) pursuant to Title 27, section 20425;

    c. Implement a Corrective Action Program (CAP) – If Santa Ana Water Board staff determines that the Discharger has satisfactorily implemented and completed the EMP release response actions described above, the Discharger shall implement a CAP pursuant to Title 27, section 20430, based upon results of the EMP and other monitoring activities; and

    d. Conduct any additional investigations stipulated in writing by Santa Ana Water Board staff for the purpose of identifying the cause of the release.

7. **Release Beyond Facility Boundary** – Any time the Discharger or Santa Ana Water Board staff concludes that a release from the Facility has proceeded beyond the Facility boundary, the Discharger shall notify all persons who either own or reside upon land that directly overlies any part of the contaminant plume (Affected Persons).

   a. **Initial Notice** – Initial notifications to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release.

   b. **Updated Notice** – Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.

   c. **Submittal** – Each time the Discharger sends a notification to Affected Persons, the Discharger shall, within seven days of sending such notification, provide Santa Ana Water Board staff with both a copy of the notification and a current mailing list of all Affected Persons.

F. Monitoring, Sampling and Analysis Specifications

1. **Monitoring and Sampling** – All water quality monitoring, sampling, and analysis shall be performed in accordance with Title 27, section 20415 and the operative MRP.

2. **Sampling Period** – For any given monitored medium, samples shall be taken from all monitoring points to satisfy the data analysis requirements. All samples shall be taken during each monitoring period such that semi-annual sampling events are approximately six months apart and shall be taken in a manner that ensures sample independence to the greatest extent feasible, in accordance with Title 27, section 20415, subdivision (e)(12)(B).

3. **Concentration Limits** – The concentration limit for any given Monitoring Constituent in a given monitored medium at the Facility shall be established and maintained in accordance with Title 27, section 20400. These limits are specified in the operative MRP, and are incorporated herein.

4. **Groundwater Surface Elevation** – In accordance with Title 27, section 20415, subdivision (e)(13), the groundwater monitoring program shall include an accurate determination of the groundwater surface elevation at

each well every time groundwater is sampled. Groundwater elevations taken prior to purging the well and sampling for monitoring constituents shall be used to fulfill groundwater monitoring requirements specified in the operative MRP.

5. **Groundwater Flow Rate and Direction** – Groundwater flow rate and direction shall be monitored and reported in accordance with the operative MRP.

6. **Data Analysis** – Data analysis for all monitoring activities shall be carried out as soon as the monitoring data are available, in accordance with Title 27, section 20415, subdivision (e) and the operative MRP.

G. Reporting Requirements

1. **Reporting and Required Reports/Notices** – All technical and monitoring program reports required under this Order and/or the operative MRP, shall be submitted under penalty perjury[4].

2. **Technical Reports** - All technical reports submitted under this Order shall be prepared by, or under the direct supervision of, a licensed civil engineer or engineering geologist (Qualified Professional). For the purposes of this section, a "technical report" is a report incorporating the application of scientific or engineering principles[5]. Each submittal subject to this section shall bear the Qualified Professional's certification.

3. **Information Requests** – The Discharger shall furnish, within a reasonable time, any information the Santa Ana Water Board may request to determine whether cause exists for modifying, reissuing, or terminating this Order. The Discharger shall also furnish to the Santa Ana Water Board, upon request, copies of records that this Order requires the Discharger to maintain.

4. **JTD Addenda** – The Discharger shall file an amended ROWD, in the form of a numerically-sequential addendum to the JTD, in accordance with Title 27, section 21585, subdivision (a)(4), with the Santa Ana Water Board at least 120 days prior to its implementation for:

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[4] Failure or refusal to furnish these reports or the falsifying of any information in a submitted report, is a misdemeanor and may result in the imposition of penalties pursuant to Water Code section 13268.

[5] At a minimum, this category includes all design, construction, and operation and maintenance plans.

a. proposing a new EAD, not already approved by the Santa Ana Water Board;

b. proposing any lateral expansion at the Facility beyond the permitted waste disposal area (409 acres) depicted in **Attachment C-2**;

c. responding to a release from the landfill;

d. making any material change or proposed change in the character, location, volume, treatment, or disposal methods of any discharge of waste; and

e. any change in control or ownership of land or waste discharge facilities.

5. **Certification by Discharger** – Applications, reports or information submitted to the Santa Ana Water Board shall be signed and certified by either a principal executive officer or ranking elected/appointed official of the Discharger.

6. **Planned Facility Changes** – The Discharger shall give advance notice to Santa Ana Water Board staff of any planned changes in permitted activities at the Facility that may result in noncompliance with this Order.

7. **Proposed Change in Ownership or Responsibility** – The Discharger shall notify the Santa Ana Water Board in writing of any proposed change in ownership or responsibility for construction, operation, closure, or post-closure maintenance of the Facility.

8. **Change in Facility Ownership** – In the event of any change in control or ownership of land or waste discharge facilities currently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter. A copy of this letter shall be signed by the new owner accepting responsibility for complying with this Order and shall be forwarded to the EO of the Santa Ana Water Board. The notification letter shall be given to the succeeding owner/operator prior to the effective date of the change and shall include a statement by the new Discharger that construction, operation, closure, and post-closure maintenance will follow this Order and any revisions thereof.

9. **Closure and Post-Closure Maintenance Plans (PCMP)** – In accordance with Title 27, section 21780, subdivision (c)(3), final closure and PCMPs for solid waste landfills shall be submitted two years prior to the anticipated date of closure. In lieu of submitting a new or updated preliminary closure and PCMP as part of a SWFP review or revision, the

operator *may* instead submit the final closure and PCMP provided that closure is anticipated to occur within five years of submittal.

10. **Financial Assurance Plans** – The Discharger shall maintain and update assurances of financial responsibility for:

    a. Closure activities pursuant to Title 27, section 22205;

    b. Post-closure maintenance activities pursuant to Title 27, section 22210;

    c. Operating liability pursuant to Title 27, section 22215; and

    d. Corrective action activities pursuant to Title 27, section 22220.

11. **Filing a Deed After Closure** – Upon completing closure at the Facility, the Discharger or the property owner shall file a deed, and amend it thereof as needed, with the County Recorder. The deed must restrict any post-development of the landfill and must include a notation advising any potential purchaser of the property that:

    a. The parcel had been used as an MSW landfill;

    b. The land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the Post-Closure Plan and in WDRs for the landfill; and

    c. If the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.

LIST OF ATTACHMENTS

Attachment A Definition of Terms
Attachment B Acronyms
Attachment C Maps/Figures

Monitoring and Reporting Program R8-2025-0006 (separate document)

ENFORCEMENT

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability,

or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including section 13268, section 13350, and section 13385. The Santa Ana Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Santa Ana Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, Title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the State Water Board website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A DEFINITION OF TERMS

"**40 CFR Part 258**" means the regulations under Code of Federal Regulations, Title 40, part 258 (Part 258) that apply to municipal solid waste (MSW) landfills (MSWLFs).

"**Affected Medium**" means any natural medium that consists of or contains waters of the state (e.g., ground water, surface water, or the unsaturated zone) that has been affected by a release from a waste management unit.

"**Affected Persons**" means all people who own, or reside upon, land outside the facility boundary that is underlain by any portion of the release from the Facility. Under Part 258.55, subdivision (g)(l)(iii), the discharger must keep an up-to-date list of all such people and must assure that they are invited to the discussion of proposed corrective action measures, pursuant to Title 40 of the Code of Federal Regulations Part 258.56, subdivision (d).

"**Appendix I Constituents**" in this Order means the suite of 47 volatile organic constituents and 17 metals used as the default monitoring parameter list in Part 258. Appendix I Constituents are included in Table 3 of MRP.

"**Appendix II Constituents**" in this Order means the suite of 213 hazardous constituents used as the default constituent of concern list in Part 258. Appendix II Constituents are included in Tables 3 and 4 of MRP.

"**Background**" means the concentrations or measures of constituents or indicator parameters in water or soil that has not been affected by waste constituents or leachate from the waste management unit being monitored.

"**Background Monitoring Point**" means a well, device, or location specified in the waste discharge requirements at which monitoring for background water quality or background soil quality, not affected by waste disposal activities is conducted.

"**Composite Retest**" means a particular means of validating a preliminary indication of a release, for a given compliance Well/Monitoring Parameter (Well/MPar) pair, whereby the discharger applies an approved data analysis method to two new samples for that Well/MPar pair. The retest validates the preliminary indication if either or both of the retest samples triggers a measurably significant increase indication. The scope of the retest, at any given compliance well, is limited to only those Monitoring Parameters that gave a preliminary indication at that monitoring point. However, all the data obtained from the initial sampling event is considered as part of the comprehensive statistical analysis for subject monitoring period.

"**Title 27**" means the State Water Resources Control Board's regulations, in Division 2 of Title 27 of the California Code of Regulations, applicable to the discharge to land of waste that is not hazardous waste.

"**Concentration Limit**" is a part of the Facility's Water Standard and means the reference background data set, or reference concentration value, for a given constituent against which one compares current compliance well data to identify, in detection mode, the arrival of the release at a given well and to identify, in tracking mode, if the corrective action measures are bringing the Facility back into compliance with the Water Standard.

"**Constituents of Concern (COCs)**" is a part of the Facility's Water Quality Protection Standard and means the list of constituents that could be released from the Facility, including the foreseeable breakdown products of all such constituents. For the ground water medium at a municipal solid waste landfill, this list must include all Appendix II constituents and general minerals. A constituent on this list becomes a Monitoring Parameter only after being detected (at trace level or above) and then verified by a well specific retest in a periodic scan of compliance wells affected by the release.

"**CAP**" means a Corrective Action Program that implements the requirements under Title 27, section 20430.

"**Detect**" when applied to a scan of leachate or ground water, means that the constituent for which the scan is conducted shows up at trace level or higher. For Constituents of Concern and Monitoring Parameters that are rarely detected in background, the term means analyses done using a laboratory analytical method that complies with Title 27, section 20415, subdivision (e)(7).

"**Detection Mode**" for a given compliance well/Monitoring (well/MPar) pair, means a state in which one tests for a measurably significant increase, for that Monitoring Parameter at that well, using an appropriate statistical or non-statistical data analysis method. Once that well/MPar pair exhibits a measurably significant increase (including an initial indication verified by a discrete retest), it is monitored, thereafter, in "tracking mode" until the completion of the proof period, following successful completion of corrective action.

"**Double Quantification (DQ)**" rule is a quasi-statistical rule, defined in the 2009 USEPA Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, to address infrequently detected constituents (i.e. constituents detected above the reporting limit in 10% or less of the background data), whereby a confirmed exceedance is registered if a Well/MPar pair in the infrequently detected constituent group exhibits quantified measurements (i.e. at or above the reporting limit) in two consecutive sample events (i.e. the initial sample event and the subsequent resample event).

"**DMP**" means a Detection Monitoring Program that implements the State Water Resources Control Board's requirements, under Title 27, section 20420.

"**EMP**" means an Evaluation Monitoring Program that implements the requirements under Title 27, section 20425. This state program constitutes a steppingstone to a

Corrective Action Program, in response to the Facility's having exhibited a measurably significant increase of a release or to its having exhibited physical evidence of a release [see Title 27, section 20385, subdivision (a)(2)-(3)].

"**Indicator Parameters**" in this Order means a suite of parameters that are considered capable of providing reliable indication of a release from a landfill.

"**Inter-Well Comparison**" means a type of statistical or non-statistical data analysis, applied to a given detection mode compliance Well/MPar pair, in which one compares current concentration data, for that Monitoring Parameter and well, with a suite of background data from the appropriate upgradient well(s) to determine if that Monitoring Parameter has produced a measurably significant increase at that well. Generally speaking, the use of upgradient background data tends to produce higher false-positive and false-negative rates than the intra-well comparison approach, but is appropriate in those cases where it is not feasible to validate that a compliance well's own historical data reflects water quality in the absence of a release.

"**Intra-Well Comparison**" means a type of statistical or non-statistical data analysis, applied to a given detection mode compliance Well/MPar pair, in which one compares current concentration data, for that Monitoring Parameter, with a suite of background data consisting of selected historical data from that same well to determine if that Monitoring Parameter has produced a measurably significant increase at that well.

Typically, the use of a compliance well's own historical data, for a Monitoring Parameter, provides better statistical power (to identify a real release and to avoid producing false-positive indications) than does the inter-well comparison approach, but only in a case where it is reasonable to assume that the compliance well's own historical data does not reflect the presence of a release for that Monitoring Parameter.

“**LFG**” means landfill gas, including any Volatile Organic Compounds (VOCs).

"**MRP**" means the Monitoring and Reporting Program that is concurrently-adopted with the Waste Discharge Requirements (or other order) and that is incorporated by reference by the Waste Discharge Requirements. The **MRP** and subsequent revisions thereto are collectively referred to as the “**operative MRP**.”

"**Matrix Effect**" means any increase in the Method Detection Limit or Practical Quantitation Limit for a given constituent as a res the MRP and subsequent revisions thereto ult of the presence of other constituents, either of natural origin or introduced through a release, that are present in the sample of water or soil-pore gas being analyzed.

"**Measurably Significant Increase**" means a condition in which an appropriate data analysis method shows an initial indication of a release, for a given detection mode compliance well/MPar pair, that is verified by a discrete retest (for that well and Monitoring Parameter).

"**Method Detection Limit (MDL)**" means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte's concentration is greater than zero, as defined in Title 40 of the Code of Federal Regulations Part 136, Appendix B.

"**Monitored Media**" means those water and/or gas-bearing media (if applicable) that are monitored pursuant to a monitoring and reporting program. The monitored media may include: groundwater in the uppermost aquifer or in any other portion of the zone of saturation [section 20164 of Title 27], in which it would be reasonable to anticipate that waste constituents migrating from the Facility could be detected, and in any perched zones underlying the Facility, any bodies of surface water that could be measurably affected by a release, soil-pore liquid beneath and/or adjacent to the Facility, and soil-pore gas beneath and/or adjacent to the Facility.

"**Monitored Natural Attenuation**" means a remedial measure that relies on natural processes to decrease or "attenuate" concentrations of contaminants in soil and groundwater. Monitoring typically involves collecting soil and groundwater samples to analyze them for the presence of contaminants and other landfill-related characteristics. The entire process is called "monitored natural attenuation" or "MNA." Regular monitoring is necessary to ensure that MNA continues to work.

"**Monitoring Parameter (MPar)**" is a part of the Facility's Water Quality Protection Standard (WQPS) and means a list consisting of those constituents that are likely to be present or present at a detectable level in ground or surface water. This is the subset of the Constituents of Concern (COCs) that is subject to testing for a measurably significant increase, in detection mode, at all compliance wells. For ground water, at a landfill with a functioning Leachate Collection and Removal System (LCRS), this suite includes all Appendix II constituents that have been detected (at trace level or above) and verified in leachate and, subsequently, have been detected (at trace level or above) and verified in a COC scan of ground water at compliance wells affected by the release. For ground water, at a landfill without a functioning Leachate Collection and Removal System, this suite includes all Appendix II constituents and general minerals that have been detected and verified in a COC scan of ground water at any compliance well affected by the release.

"**Monitoring Point or Well**" for any given monitored medium (surface water, ground water, or the unsaturated zone), means a location, including any installed access device (e.g., well or lysimeter), that is named in the Monitoring and Reporting Program as a place where the discharger monitors that medium: 1) to detect the arrival of the release front for each Monitoring Parameter that is in detection mode at that location; 2) to detect changes in the concentration of each Monitoring Parameter that is in tracking mode at that location; and 3) in case where the location that is in tracking mode for most Monitoring Parameters that are involved in the release, to detect the presence, at trace level or above, of any Constituents of Concern that have not previously been detected

in that medium (Constituents of Concern newly detected and verified in that medium become Monitoring Parameters for that medium).

"**MSW Landfill**" means any landfill that is subject to any portion of the federal regulations under Title 40 of the Code of Federal Regulations Part 258 by virtue of having received municipal solid waste (household waste) at any time and having received any waste after October 9, 1991.

"**Point of Compliance (POC)**" is, for the ground water medium, a part of the Facility's Water Quality Protection Standard and means a conceptual vertical surface that is located, in map view, along the hydraulically downgradient limit of waste placement at the Facility and that extends downward through the uppermost aquifer underlying the Unit. The federal municipal solid waste regulations require one or more ground water monitoring points along this vertical surface to monitor the quality of ground water passing it (see 40 CFR 258.51), whereas the Santa Ana Water Board will name other ground water monitoring points (not along this vertical surface) as needed to provide the earliest possible detection and measurement of a release [see Title 27, section 20415, subdivision (b)(l)].

"**Practical Quantitation Limit (PQL)**" means the value established as a target value by the United States Environmental Protection Agency that is the lowest concentration of a substance that can be consistently determined within +/- 20% of the true concentration by 75% of the laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the Practical Quantitation Limit for carcinogens is the Method Detection Limit multiplied by 5, and for non-carcinogens is the Method Detection Limit multiplied by 10. These estimated PQLs are listed in Appendix II to Part 258. Generally, these are target values that may not reflect the constraints of matrix effects; therefore, the Santa Ana Water Board requires the Discharger to keep an up-to-date listing of the applicable laboratory-specific PQL and MDL estimates for each analyte on the Constituent of Concern list.

"**Release**" means the three-dimensional portion of the monitored medium (groundwater, surface water, or the unsaturated zone) comprised of all locations therein that are affected by one or more Monitoring Parameters that have migrated from the Facility to such an extent that a properly constructed monitoring point, at that location, would trigger a measurably significant increase over the applicable concentration limit, using an appropriate data analysis method meeting the requirements of Title 27, section 20415, subdivision (e)(9) and a background data set sample size of 16 or more data points.

"**Reporting Period**" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal.

"**Retest**" when applied to a scan to detect the presence of an appropriate list of analytes in the monitored medium (typically leachate, gas condensate, or ground water) at an

affected monitoring point), means taking a single additional sample from the indicating medium to determine whether the initial detection, for that analyte, is valid. When applied to the six-monthly monitoring effort for a given compliance Well/MPar pair in detection mode, see "*composite retest*."

"**Sample Size**" for a given compliance Well/MPar pair in detection mode, means the number of data points used to represent the variability of the background population or to represent the present compliance status of the Monitoring Parameter at that well, when applying an appropriate data analysis method.

"**Scan**" means a determination as to whether any of a given list of constituents are detectable (at the trace level or above) in the monitored medium (typically leachate, groundwater, and landfill gas condensate). The term includes both the initial measurement and, for a newly detected constituent, the results of the single retest sample. To identify a newly detected constituent, the constituent must be detected (at trace level or above) and then verified by being detected in the single sample retest.

ATTACHMENT B ACRONYMS

ADC – Alternative Daily Cover

AMP – Assessment Monitoring Program

BLIP - Badlands Landfill Integrated Project

CalRecycle – California Department of Resources Recycling and Recovery

CAP – Corrective Action Program

CCL – Compacted Clay Liner

CCR – California Code of Regulations

CEQA – California Environmental Quality Act

CFR – Code of Federal Regulations

CNSDAM – California Non-statistical Data Analysis Method

COC – Constituent of Concern

CQA/QC – Construction Quality Assurance and Quality Control

CRT – Cathode Ray Tube

CWC – California Water Code

DMP – Detection Monitoring Program

DTSC – California Department of Toxic Substances Control

EAD – Engineered Alternative Design

EDF – Electronic Deliverable Format

EFS – Engineering Feasibility Study

EMP – Evaluation Monitoring Program

EO – Executive Officer

ESI – Electronic Submittal of Information

FML – Flexible Membrane Liner

GCL – Geosynthetic Clay Liner

IGP – Industrial General Stormwater Permit

JTD – Joint Technical Document

LCRS – Leachate Collection and Removal System

LFG – Landfill Gas

LPL – Low Permeability Layer

MCL – Maximum Contaminant Level

MDL – Method Detection Limit

MND – Mitigated Negative Declaration

MPars – Monitoring Parameters

MRP – Monitoring and Reporting Program

MSW – Municipal Solid Wastes

ND – Non-detect

NPDES – National Pollutant Discharge Elimination System

PCMP – Post-Closure Maintenance Plan

PDF – Portable Document Format

POC – Point of Compliance

PQL – Practical Quantitation Limit

PSD – Prescriptive Standard Design

QA/QC – Quality Assurance/Quality Control

RL – Reporting Limit

ROWD – Report of Waste Discharge

TWW – Treated Wood Waste

USEPA – United States Environmental Protection Agency

VOCs – Volatile Organic Compounds

WCS – Waste Containment System

WDRs – Waste Discharge Requirements

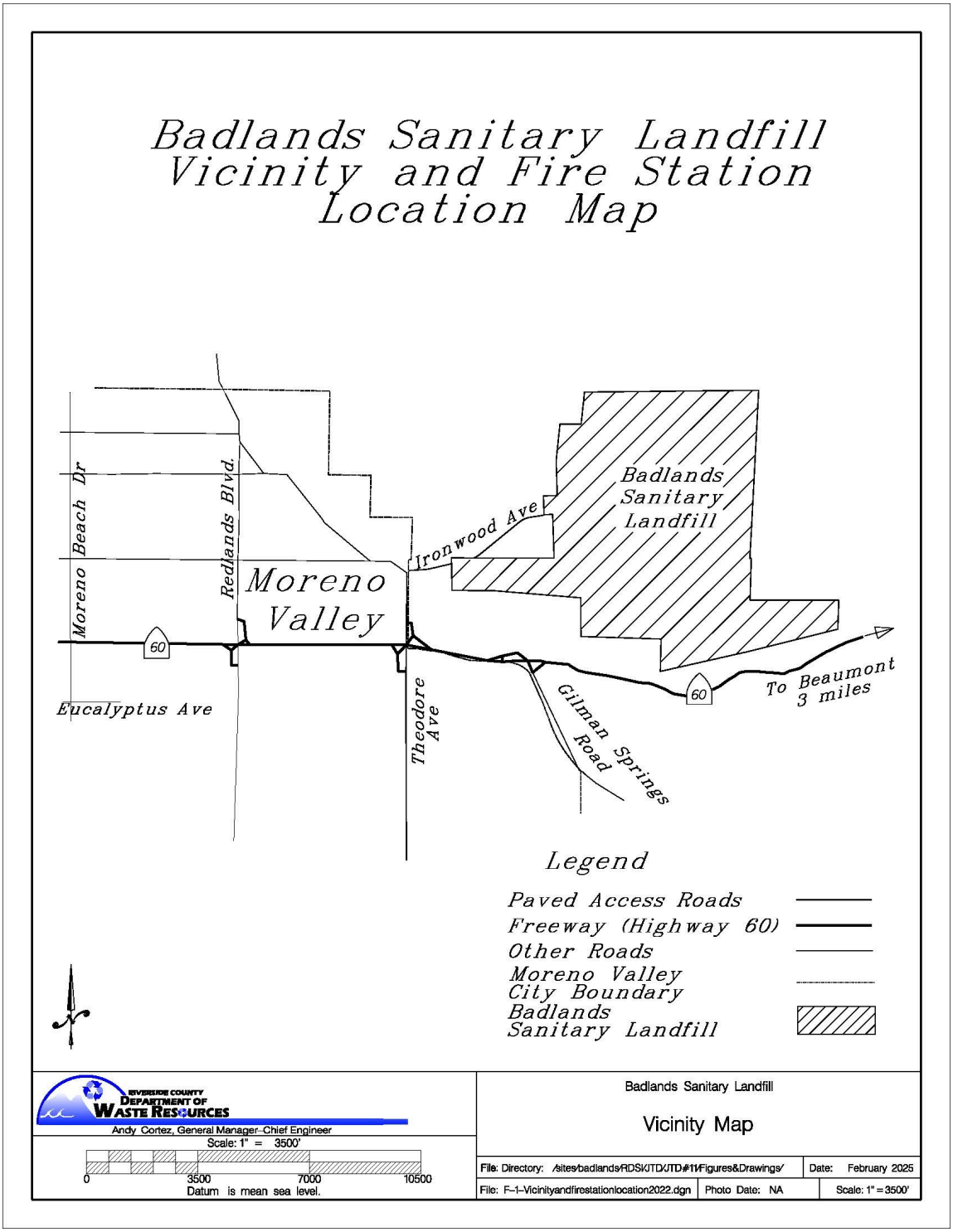
WMUs – Waste Management Units

WQOs – Water Quality Objectives

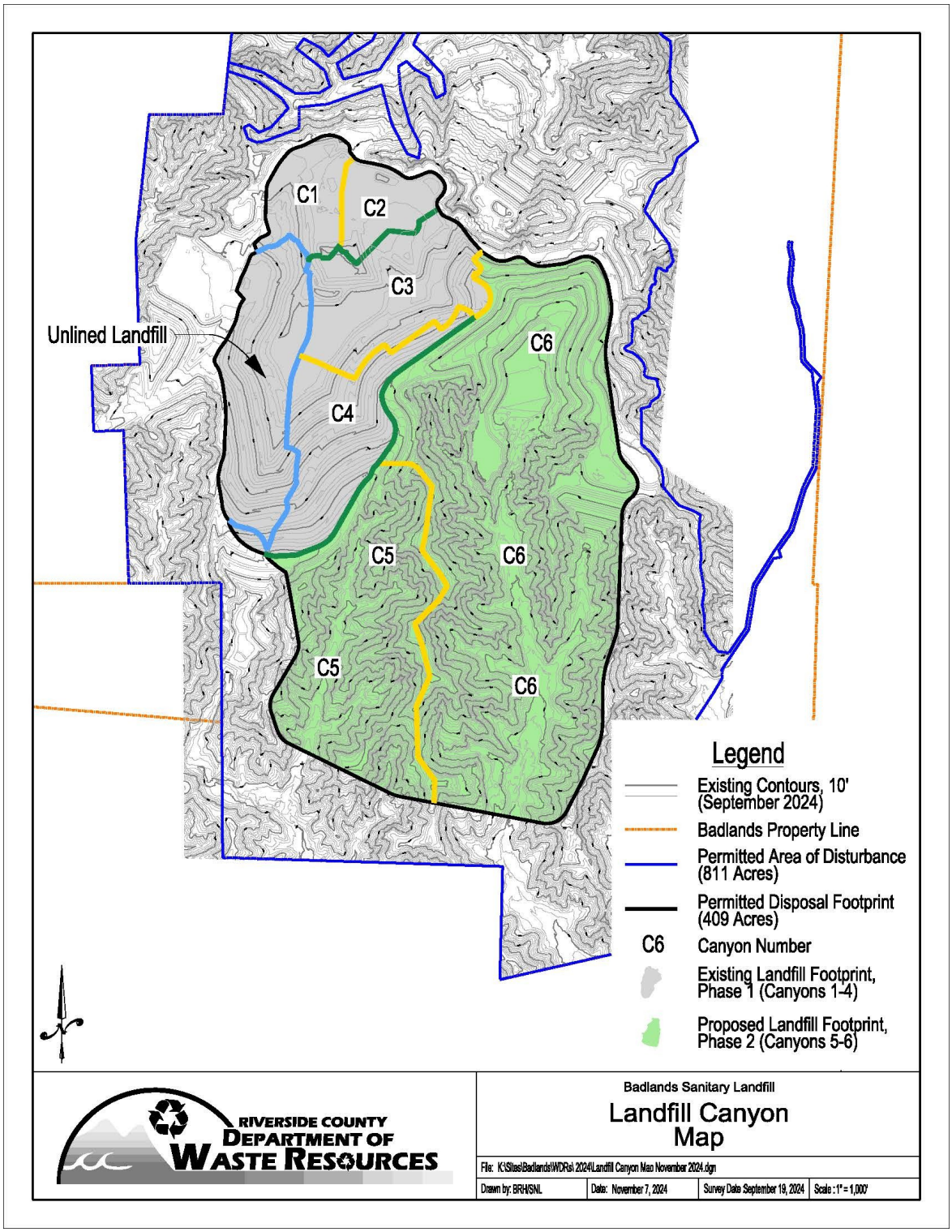
WQPS – Water Quality Protection Standard

ATTACHMENT C MAPS/FIGURES

ATTACHMENT C-1 - Vicinity Map



ATTACHMENT C-2 – Existing and Proposed Landfill Footprint



ATTACHMENT C-3 – Existing and Proposed Waste Management Units