CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

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[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R2-2026-00XX

ORDER INFORMATION

Order Type:	Waste Discharge Requirements (WDRs)
Status:	Tentative
Program:	Land Disposal and Waste Containment
Discharger:	City of Menlo Park
Facility:	Bedwell Bayfront Park Landfill
Address:	1600 Marsh Rd, Menlo Park, CA 94025
County:	San Mateo County
GeoTracker ID:	L10008021218
WDID:	2 417045001
Prior Orders:	Order 70-78; Order 71-77; Order 71-81; Order 74-40; Order 78-111; Order 82-003; Order 82-056; Order 97-073

CERTIFICATION

I, Eileen White, 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, San Francisco Bay Region, on [Month] [Day], [Year].

EILEEN M. WHITE, P.E.
Executive Officer

TABLE OF CONTENTS

Table Index ..... **iii**

Figure Index ..... **iii**

Glossary ..... **iv**

Findings **1**

Discharger and Location 1

Purpose of Order 1

Regulatory History 1

Landfill Construction and Operation 2

Geological and Hydrogeological Setting 3

Fluids Management 4

Post-Closure Land Use 4

Monitoring Programs 5

Financial Assurance 7

Basin Plan and Beneficial Uses of Water 7

Compliance with Antidegradation Policy 8

Human Right to Water 9

California Environmental Quality Act 9

Public Participation 9

Requirements **10**

A. Prohibitions 10

B. Facility Specifications 12

C. Monitoring, Notification, and Reporting Requirements 12

D. Other Provisions 17

TABLE OF CONTENTS

Attachments 21

Enforcement 21

Administrative Review 21

Attachment A— Figures 23

Attachment B—Self-Monitoring Program 25

A. General Monitoring Requirements 25

B. Detection Monitoring Program 26

1. Groundwater 26

2. Surface Water 27

3. Analyte Table 28

4. Concentration Limits for Constituents of Concern (COCs) 29

5. Procedures to Confirm Evidence of Release 30

a. Procedure for Analytes Detected in Less than 10 Percent of Background Samples (Non-Statistical Method). 30

b. Procedure for Analytes Detected in 10 Percent or More of Background Samples (Statistical or Non-Statistical Method). 31

c. Next Steps After Confirmation 32

6. Physical Evidence of a Release 32

7. Response to Release Requirements 32

C. Other Facility Monitoring 35

D. Reporting Requirements 37

E. Record-Keeping 41

TABLE INDEX

Table 1. Required Signatories for Submittals. 16

Table B-1. Monitoring Parameters for Groundwater and Surface Water. 28

Table B-2. Time Schedule of Required Actions After Confirming Measurably Significant Evidence of Release. 33

Table B-3. Criteria for Regular Visual Inspections. 35

FIGURE INDEX

Figure 1. Bedwell Bayfront Park Landfill Site Location Map. 23

Figure 2. Bedwell Bayfront Park Landfill Site Plan. 24

GLOSSARY

Antidegradation Policy .....Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Resources Control Board Resolution 68-16

Basin Plan.....Water Quality Control Plan for San Francisco Bay Basin Region (inclusive of all amendments)

bgs.....Below Ground Surface

BPTC .....Best Practicable Treatment and Control

CAI…… Closed, Abandoned, Inactive

CEQA.....California Environmental Quality Act

CFR.....Code Federal of Regulations

DDW.....Division of Drinking Water

EMP .....Evaluation Monitoring Program

ft/day.....Feet per Day

LCRS .....Leachate Collection and Recovery System

MCL[s].....Maximum Contaminant Level[s] for Drinking Water under Title 22

MDL .....Method Detection Limit

mg/L.....Milligrams per Liter

µg/L.....Micrograms per Liter

ml/L.....Milliliters per Liter

MSL.....Above Mean Sea Level

MW.....Monitoring Wells

ND.....Non-Detect

NPDES.....National Pollutant Discharge Elimination System

GLOSSARY

OES.....Office of Emergency Services

PFAS.....Per- and Polyfluoroalkyl Substances

pH .....Potential or Power of Hydrogen

PQL.....Practical Quantitation Limit

QA/QC .....Quality Assurance and Quality Control

ROWD.....Report of Waste Discharge

SMP .....Self-Monitoring Program

SMRs .....Self-Monitoring Reports

State Water Board .....State Water Resources Control Board

SVOC.....Semivolatile Organic Compound

Title 22.....California Code of Regulations, Title 22

Title 23.....California Code of Regulations, Title 23

Title 27.....California Code of Regulations, Title 27

TDS.....Total Dissolved Solids

USEPA.....United States Environmental Protection Agency

VOC .....Volatile Organic Compound

WDRs.....Waste Discharge Requirements

WMU .....Waste Management Unit

WQO[s].....Water Quality Objective[s]

(findings begin on next page)

FINDINGS

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

Discharger and Location

1. This Order prescribes updated waste discharge requirements (WDRs) for the Bedwell Bayfront Park Landfill (Landfill), formerly known as Bayfront Park and the Marsh Road Landfill), in San Mateo County, California. The solid waste disposal site is a public landfill located at 1600 Marsh Road in Menlo Park, north of highway 84, as shown on Figure 1 of Attachment A. No waste has been disposed of at the Landfill since it ceased accepting waste in 1984. The Landfill is currently classified as a closed, abandoned, or inactive (CAI) Class III Waste Management Unit (WMU).

2. The City of Menlo Park (Discharger) owns and operates the closed landfill. During its operation, the San Mateo Disposal Company managed public disposal, and the South County Garbage and Refusal District managed private disposal at the Landfill. The Discharger retains responsibility for managing and monitoring the Landfill and is responsible for compliance with this Order.

Purpose of Order

3. The primary objectives of this Order are to:

    a. Specify groundwater monitoring requirements, consistent with California Code of Regulations, title 27, section 20005 et seq. (Title 27); and

    b. Update the Landfill's WDRs.

4. This Order is limited to post-closure WMU maintenance and monitoring activities at the Landfill; further solid waste discharges are prohibited.

Regulatory History

5. Pursuant to Water Code section 13263, subdivision (a), the Regional Water Board is authorized to "prescribe [WDRs] as to the nature of any … existing discharge … with relation to the conditions existing in the disposal area…."

6. The Board adopted Orders 70-78, 71-77, 71-81, and 74-40 for portions of the site then under different owners.

7. In 1978, the Board adopted Order 78-111 which prescribed WDRs for the Landfill. This order established tasks necessary to characterize and contain landfill waste materials and to monitor and prevent impacts to water quality, and for the Discharger to submit a site closure plan.

8. In 1982, the Board adopted Orders 82-003 and 82-056 amending the WDRs and establishing closure requirements for the Landfill.

9. In 1997, the Board adopted Order 97-073 updating the WDRs to evaluate the efficiency of the leachate extraction and disposal system and require maintenance activities.

10. Order 97-073 was amended in 2022 by Regional Water Board Order R2-2022-0031 (Amendment to Waste Discharge Requirements for Long-Term Flood Protection Considerations at Closed and Operating Municipal Solid Waste Bayfront Landfills). The 2022 amendment required the Bedwell Bayfront Park Landfill (and other Bayfront landfills) to submit a Long-Term Flood Protection Plan that identifies strategies for the long-term protection of the Landfill from flooding and inundation due to sea level rise, groundwater rise, and extreme climate/weather events.

Landfill Construction and Operation

11. **Construction and Closure**: The Landfill's unlined WMU was constructed, operated, and closed prior to the promulgation of prescriptive standards for solid waste landfills, which are now codified in Title 27.[1] The WMU was closed in 1976, with the construction of a single-layer final cover comprised of two feet of red clay material. There is now also a vegetative layer on the surface of the final cover.

12. **Dates of Operation**: The Landfill operated from 1957 until 1984.

13. **Wastes Accepted**: The Landfill accepted municipal solid waste and a small quantity of sewage sludge. The depth of fill throughout the WMU ranges from 10 to 100 feet. The volume of refuse in place is estimated to be about 1,500,000 cubic yards.

[1] Prior to 1997, prescriptive standards for nonhazardous waste landfills were codified within California Code of Regulations, title 23, division 3, chapter 15 (§ 2510 et seq.).

Geological and Hydrogeological Setting

14. **Geology**: The Bedwell Bayfront Landfill is located in the northeastern part of the Santa Clara Valley adjacent to San Francisco Bay. The San Francisco Bay is a structural depression that slowly subsided along several parallel northwest-trending faults. The surface of the depression has been periodically inundated by water in response to global changes in sea level, and it is filled with alluvial stream and estuarine type deposits to form a thick sequence of Holocene Bay Mud and interbedded alluvial deposits. The Holocene Bay Mud is divided into two units, older and younger Bay Mud. The Older Bay Mud occurs below approximately -20 feet mean sea level, and consists of semi-consolidated silty clay interbedded with alluvial sand and gravel deposits and exposed in southwest of the Landfill. The younger Bay Mud consists of approximately 5 to 20 feet of organic-rich silty clay interbedded with minor sand layers.

15. **Local Seismic Setting**: The Landfill is in a seismically active area approximately 8 miles east of the San Andreas Fault, 11 miles southwest of the Hayward Fault, and 20 miles west of the Calaveras Fault.

16. **Hydrogeology**: The Landfill lies within the northern part of the Santa Clara Valley groundwater basin, which contains over 1,000 feet of unconsolidated to semi-consolidated clays, silts, sands, and gravel. Regional groundwater studies indicate that the primary freshwater aquifer along the western San Francisco Bay margin are restricted to buried channel deposits within the alluvium. The buried channel deposits are regionally grouped into upper and lower aquifers. Near the Bay, these aquifers are separated from each other by the older Bay Mud, which forms an extensive clay aquitard. Regional groundwater flow within the aquifer system is towards the San Franciso Bay and is recharged by runoff from the Santa Cruz Mountains. Beneath the Landfill, the upper water-bearing zone occurs within the younger Bay Mud.

17. **Ambient Groundwater Quality**: The composition of groundwater in the uppermost water-bearing zone varies with location. This variability is likely caused by brackish water recharge from the San Francisco Bay sloughs and wetlands along the northern and western sides of the landfill, and salt brine intrusion from the salt evaporators along the southern and eastern sides of the landfill.

18. **Surface Water Bodies**: The main surface water bodies adjacent to the Landfill are Flood and Westpoint Sloughs and salt evaporator ponds. A surface water collection basin and pumping station at the upstream end of the Flood Slough regulates flow from Atherton Channel which drains runoff from the cities of Menlo Park, Atherton, and uplands to the southwest. Flood Slough flows north along the western perimeter of the facility and terminates at Westpoint Slough. Water elevation in the Slough is generally controlled by tides.

19. **Long-Term Flood Protection Plan:** On July 10, 2023, the Discharger submitted a Long-Term Flood Protection Plan (Plan), as required by Regional Water Board Order R2-2022-0031. In a letter dated November 15, 2023, the Regional Water Board requested that a revised report addressing deficiencies be submitted by February 29, 2024. On February 21, 2024, the Discharger submitted a revised Long-Term Flood Protection Plan. The Plan describes the potential effects of sea level rise and groundwater rise on vulnerable features and infrastructure at the landfill and discusses options to provide protection. The Regional Water Board concurred with this Plan on June 12, 2024. Provision D.1 of this Order requires the Discharger to submit updates to the Plan every five years.

Fluids Management

20. **Leachate Collection:** The leachate extraction system for the Landfill includes: seven older extraction sumps (1 through 7) along the eastern, northern, and western perimeters of the landfill that were installed in 1986 and 1987; and five sumps that were installed in 1998 and 1999 (8 through 11, plus 4A). Four of the newer sumps are along the southern perimeter (8 through 11) and one is along the northern perimeter (4A). They were located in areas where seeps along the side slopes of the landfill had developed during the winter of 1998.

    The sumps consist of a gravel-filled trench with a horizontal perforated pipe near the base. The perforated pipe is joined to a vertical pipe (riser) which extends to the ground surface. Automated submersible pumps with fluid-level and timer controls are installed in the sumps and connected through a flow meter and a check valve to prevent backflow to a common line that discharges leachate to sanitary sewer maintenance hole B1545 near the site entrance. In late 1995, a restroom facility was installed at Bayfront Park and the sewer system is tied into the leachate line between Sumps 1 and 2. 3,000,000 to 5,000,000 gallons of leachate are typically removed from the Landfill each year.

21. **Stormwater Drainage**: Permanent drainage structures at the Landfill are used to direct storm water runoff into the sloughs.

22. **Landfill Gas Collection and Removal**: The landfill gas collection and control system includes an extensive network of 57 gas collection wells, which are connected to an extraction header and a flare station. The flare station typically runs between 650 to 750 hours per month.

Post-Closure Land Use

23. The Facility is currently maintained by the Discharger as a public park used for hiking, bird watching, photography, and other activities. The park's perimeter trail is part of the San Francisco Bay Trail.

Monitoring Programs

24. Attached as Attachment B to this Order is a Self-Monitoring Program (SMP) issued pursuant to Water Code section 13267, subdivision (b)(1), which authorizes the Board to require that persons discharging waste within the region "shall furnish, under penalty of perjury, technical or monitoring program reports…," provided that the discharger's burdens of compliance, including costs, is reasonable relative to the need for the submittals and the benefits to be obtained.

25. In accordance with Title 27, this Order establishes an analytical framework for monitoring groundwater and surface water to detect a release from the WMU. This Detection Monitoring Program (DMP) framework is referred to as the Water Quality Protection Standard (WQPS). (Title 27, § 20420, subd. (b).) For the duration of the Compliance Period, the Monitoring Points at the Point of Compliance (POC) are sampled and analyzed for Monitoring Parameters indicative of a release; and if concentrations of Constituents of Concern (COCs), including Five-Year COCs, exceed Concentration Limits, the results are confirmed through Retesting Procedures, and then Corrective Action will be required.

    a. The **Compliance Period** is the minimum time for which water quality monitoring will be required. This period is equal to the sum of active years and the closure period. (§ 20410.) The period restarts each time an Evaluation Monitoring Program (EMP) is initiated for a given WMU. (§§ 20410(a), 20415, 20425.) If a WMU is in corrective action, the period continues until it is demonstrated that the WMU has been in continuous compliance with its WQPS for at least three years. (§ 20410, subd. (c).)

    b. For WQPS purposes, a **Monitoring Point** is any well, device, or location where monitoring is conducted, as specified in the WDRs. (Title 27, § 20164.) For the landfill, the Monitoring Points are as follows: SW-1, SW-2, G-2, G-3, G-4, G-5, G-6, G-7, G-8, S-1)

    c. The **Point of Compliance (POC)** is a vertical plane at the WMU's hydraulically downgradient limit, tending through the uppermost underlying aquifer. (Title 27, §§ 10164, 20405(a).)

    d. **Monitoring Parameters** are a predetermined set of Constituents of Concern (see below) and measurable physical characteristics (e.g., temperature, electrical conductivity, pH), which serve as reliable indicators of a release, and for which samples will therefore be routinely analyzed. (Title 27, §§ 20164, 20395(a), 20420(e) (f).)

e. **Constituents of Concern (COCs)** are all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in a WMU. (Title 27, §§ 20164, 20395.) For municipal solid waste landfills, the COCs are those listed in Appendices I and II to title 40, part 258 of the Code of Federal Regulations (CFR). (Title 27, § 20395, subd. (b); State Water Board Resolution 93-62, Attachment 1; 40 CFR §§ 258.54, 258.55.)

f. **Five-Year COCs** are a subset of COCs that are not regularly analyzed as Monitoring Parameters. Instead, they are only analyzed every five years.

g. The **Concentration Limit** is the "background concentration" for each Monitoring Parameter, as determined by the statistical methods outlined in subdivision (e)(8) of Title 27, section 20415. (Title 27, § 20400, subds. (a), (b).)

h. **Retesting Procedures** apply when monitoring results indicate "measurably significant" evidence of a release. Per Title 27, the Discharger is required to follow one of two retesting procedures, depending on whether the COC is naturally occurring (i.e., detected in at least 10 percent of background samples).

26. The various notifications, technical reports, and monitoring program reports required under this Order, including those contained within SMP, are necessary to ensure compliance with the WDRs and the prescriptive standards of Title 27, as applicable. The burdens of monitoring and reporting imposed on the Discharger under this Order and the SMP are reasonable relative to the need for compliance described above.

27. Based on experience with other facilities, staff estimate that the cost of compliance with the SMP may vary between $5,000 and $75,000 annually. However, the costs and other burdens of implementing the SMP (including reporting) are reasonable relative to the needs and benefits outlined above.

28. The new SMP updates the monitoring well list[2] and requires the following:

a. Analysis of groundwater samples for a variety of detection monitoring parameters such as pH, specific conductance, nitrate, and volatile organic compounds (VOCs).

[2] As of the date of this Order, the Landfill's detection monitoring network includes 7 monitoring wells, one leachate well, and 2 surface water sampling points.

b. Analysis of groundwater samples for certain per- and polyfluoroalkyl substances (PFAS); and

c. Groundwater conditions monitoring (e.g., direction and elevation below ground surface).

29. The Executive Officer may issue a Revised SMP as a standalone order, pursuant to their delegated authority under Water Code section 13267. Upon issuance, the Revised SMP shall supersede the provisions of Attachment B.

Financial Assurance

30. Under Title 27, permittees are required to provide financial assurances of their ability to pay for closure (§§ 22205, 22207), post-closure maintenance and monitoring (§§ 22210, 22212), and corrective action (§§ 22220, 22222). Such assurances are provided through the authorized mechanisms listed in Title 27, Division 2, Subdivision 1, Chapter 6, Subchapter 3 (§§ 22225–222254).

31. The Landfill is a “CAI Unit” (see findings above). Accordingly, this Order does not impose financial assurances requirements under Title 27.

Basin Plan and Beneficial Uses of Water

32. Water Code section 13263, subdivision (a) further provides that WDRs “shall implement water quality control plans and shall take into consideration the beneficial uses to be protected, the water quality objectives [WQOs] reasonably required for that purpose, other waste discharges, the need to prevent nuisance[3], and the provisions of Section 13241.”

33. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and WQOs for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve WQOs. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Board, U.S. EPA, and the Office of Administrative Law, where required.

[3] “Nuisance” is defined by statute as a condition that: “(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property[;] [¶] (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons…[;] [and] [¶] (3) Occurs during, or as a result of, the treatment or disposal of wastes.” (Wat. Code, § 13050, subd. (m).)

34. The beneficial uses of nearby surface waters (San Francisco Bay Lower, Westpoint Slough, and Atherton Creek) are:

    a. Industrial service supply

    b. Commercial and sport fishing

    c. Shellfish harvesting

    d. Estuarine habitat

    e. Fish migration

    f. Preservation of rare and endangered species

    g. Fish spawning

    h. Wildlife habitat

    i. Warm freshwater habitat

    j. Water contact recreation

    k. Non-contact water recreation

    l. Navigation

35. The potential and existing beneficial uses of underlying and adjacent shallow groundwater are:

    a. Municipal and domestic supply

    b. Industrial process supply

    c. Industrial service supply

    d. Agricultural water supply

Compliance with Antidegradation Policy

36. The State Water Board's *Statement of Policy with Respect to Maintaining High Quality Waters in California*, Resolution 68-16 (*Antidegradation Policy*) prohibits the Regional 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.

37. This Order is consistent with the Antidegradation Policy because it prohibits any releases to surface water or groundwater—effectively precluding any degradation to water quality. Further, in the event that groundwater detection monitoring indicates a release, corrective action will be required to address and remediate the release.

Human Right to Water

38. Water Code section 106.3, subdivision (a) provides that it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." (See also State Water Board Resolution 2016-0010.) The human right to water extends to all Californians, including disadvantaged individuals and groups and communities in rural and urban areas. Although subdivision (a) of section 106.3 does not apply directly to the prescribing of WDRs (see § 106.3, subd. (b)), this Order nevertheless furthers the stated policy by protecting sources of drinking water.

California Environmental Quality Act

39. The issuance of this Order, which regulates an existing facility with no expansions in existing uses, is categorically exempt from the procedural requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), in accordance with section 15301 of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.).

Public Participation

40. In developing these WDRs, Regional Water Board staff has complied with Water Code section 189.7, subdivision (a)(1), which requires "equitable, culturally relevant community outreach to promote meaningful civil engagement from potentially impacted communities of proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged communities or tribal communities…."

41. Water Code section 13149.2, subdivision (d) requires that the Regional Water Board, "[w]hen issuing … individual WDRs … that regulate activity or a Facility

that may impact a disadvantaged[4] or tribal community,[5] and that includes a time schedule in accordance with subdivision (c) of Section 13263 for achieving an applicable water quality objective, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance…," must include finding(s) regarding "potential environmental justice,[6] 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 under section 13149.2.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, and the applicable provisions of California Code of Regulations, title 27, section 20005 et seq., that Order 97-073 is terminated (except for enforcement purposes), and that the Discharger shall comply with the following requirements.

A. Prohibitions

1. The Discharger shall not make any material changes to existing land uses or implement any development on the Landfill site affecting the WMU waste containment system without: (1) submitting the report required per section C.2.a; and (2) obtaining written approval from the Executive Officer.[7] In any event, development of the Landfill site and other onsite

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[4] 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, § 13149.2, subd. (f)(1).)

[5] 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, § 13149.2, subd. (f)(2).)

[6] Water Code section 13149.2 incorporates the general definition of "environmental justice" in Public Resources Code section 30107.3, subdivision (a): "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Wat. Code, § 13149.2, subd. (f).)

[7] Alternatively, the Regional Water Board may issue revised WDRs addressing the proposed changes or developments.

activities shall not result in degradation and other adverse impacts to surface waters and groundwater.

2. Wastes exposed temporarily during construction shall not be allowed to exist in any position where they can migrate from the Landfill to adjacent geologic materials or waters of the State.

3. The creation of any new WMU on the Landfill property is prohibited.

4. No new solid wastes shall be discharged to the existing WMU on the Landfill property; additionally, the Landfill property shall not be used for the permanent disposal of any further wastes.

5. Waste from the WMU shall not be excavated or relocated without prior Regional Water Board staff written approval.

6. Waste materials shall not be exposed or relocated to any position where they can migrate from the Landfill to adjacent geologic materials, waters of the State, or waters of the United States during the post-closure maintenance period.

7. Leachate shall not create a condition of pollution or nuisance nor degrade the quality of waters of the State or waters of the United States.

8. The WMU's final cover, as described in Finding 11, shall not be excavated or disturbed in any manner that could negatively affect its integrity. Further, the Discharger shall not perform any intrusive activities, such as digging or trenching, on the Landfill surface that have the potential to negatively affect the integrity and proper function of the Landfill cap without prior written approval from the Executive Officer, except in the event of emergency repairs to the Landfill cap or gas collection system to protect human health and the environment.

9. The Discharger shall not damage the Landfill cap during control of vegetative growth.

10. Excavation within, or reconfiguration of, any existing WMU is prohibited without prior written concurrence from the Regional Water Board. Minor excavation or reconfiguration activities, however, such as replacement of landfill gas collection and control system elements, installation of signs or landscaping, or for routine maintenance and repair, do not require prior staff concurrence.

11. Waste in, and leachate generated by, the WMU shall not be released and cause any degradation in the quality of groundwater.

B. **Facility Specifications**

1. The Discharger shall maintain the Landfill to prevent a measurably significant increase in water quality parameters at points of compliance.

2. The final cover system shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.

3. The Discharger shall provide and maintain a minimum of two permanent, surveyed monuments near the Landfill, or other methods acceptable to the Executive Officer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout closure, and post-closure maintenance periods.

4. Containment, collection, drainage, and monitoring systems constructed for groundwater, surface water, and leachate shall be maintained and operated as long as waste or leachate is present and poses a threat to water quality.

5. Methane and other landfill gas shall be adequately vented, removed from the Landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, and the impairment of beneficial uses of water due to landfill gas migration.

6. The Discharger shall assure that any new structures that control leachate, surface drainage, erosion, and landfill gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.

7. The Discharger shall provide reasonable access to any property it owns or leases at the Landfill to allow for installation, sampling, and monitoring of all devices and equipment necessary for compliance with the requirements of this Order.

8. If a seep from the Landfill is observed coming into contact with any bordering surface water body, the Discharger shall immediately notify the Regional Water Board. Sampling of upstream and downstream locations on that surface water body may be required on a schedule to be determined by the Regional Water Board.

9. Surface drainage shall be intercepted and controlled to promote flow off the Landfill and prevent ponding during the post-closure period.

C. **Monitoring, Notification, and Reporting Requirements**

1. **Self-Monitoring Program**

a. The Discharger shall implement and comply with the Self-Monitoring Program (SMP) attached hereto as Attachment B. However, in the event that the Executive Officer issues a Revised SMP, the Discharger shall instead comply with the operative Revised SMP (which supersedes the provisions of Attachment B).

b. **Request for Revised Self-Monitoring Program.** The Discharger may submit a written request (including supporting documentation) to the Executive Officer proposing modifications to the attached SMP. If the proposed modifications are acceptable, the Executive Officer will issue a letter of approval that incorporates the proposed revisions into the SMP.

2. **Notification Requirements**

a. **Material Change in Post-Closure Land Uses or Developments.** At least 120 days prior to any onsite development or material changes to existing land uses, the Discharger shall submit a technical report describing the proposed changes or developments, particularly with respect to impacts to the existing Landfill containment systems. The report shall also specify components of the design necessary to maintain the integrity of such systems.

b. **Groundwater Well Installation or Destruction Report.** Within 60 days of installing or destructing any groundwater monitoring well at the Facility, the Discharger shall submit a technical report, acceptable to the Executive Officer, which provides well construction details, geologic boring logs, and well development logs for all new groundwater monitoring wells and landfill gas extraction wells installed or destroyed.

c. **Significant Earthquake**

i. Within 48 hours of any Significant Earthquake,[8] the Discharger shall notify the Regional Water Board and conduct an initial inspection of the Landfill site. Any damages to the waste containment system potentially capable of impacting the waters of the State shall be immediately reported.

[8] For the purposes of this Order, a “Significant Earthquake” is a seismic event that generates ground shaking of moment magnitude 6 or greater within 30 miles of the Landfill.

ii. Within six weeks of the Significant Earthquake, the Discharger shall submit a detailed Post-Earthquake Inspection Report that describes the containment features, groundwater monitoring, and control facilities potentially impacted by seismic deformations of the Landfill.

d. **Change in Site Conditions.** The Discharger shall immediately notify the Regional Water Board of flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, liner leakage, or other change in site conditions that could impair the integrity of the Landfill's cap, waste or leachate containment facilities, and/or drainage control structures and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

e. **Change in Ownership.** Provided there is no material change in the operation of the site, this Order may be transferred to a new owner. The Discharger or new owner must request the transfer in writing and receive written approval from the Executive Officer. Such a request must be submitted to the Executive Officer at least 30 days prior to the transfer of ownership. The request must include a written agreement between the Discharger and the new owner containing a specific date for the transfer of this Order's responsibility and coverage between the Discharger and the proposed new owner. This agreement shall include an acknowledgment that the Discharger is liable for violations up to the transfer date and that the new owner is liable from the transfer date on. (§§ 132671, 3263). The request must contain the requesting entity's full legal name, and the address and telephone number of the persons responsible for contact with the Water Board.

f. **Information Correction.** When a Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge (ROWD) or submitted incorrect information in a ROWD or in any report to the Regional Water Board, it shall promptly submit such facts or information.

3. **General Reporting Requirements**

a. **Transmittal Letters.** Each self-monitoring report (SMR) submitted shall be accompanied by a Transmittal Letter providing a brief overview of the enclosed report, as well as the following:

i. Any violations found since the last report was submitted, a description of all actions undertaken to correct the violation (referencing any previously submitted time schedules for compliance), and whether the violations were corrected; and

ii. A statement from the submitting party, or its authorized agent, signed under penalty of perjury, certifying that, to the best of the signer's knowledge, the contents of the enclosed report are true, accurate, and complete.

b. **Electronic Submittal via GeoTracker.** Reports shall be submitted electronically via the State Water Board's GeoTracker Database (https://geotracker.waterboards.ca.gov).

c. **Preparation of Technical Reports by Qualified Professionals.** All reports submitted pursuant to this Order shall be prepared under the supervision of and signed by appropriately licensed professionals, such as a California professional civil engineer, professional geologist, and/or certified engineering geologist, and shall be acceptable to the Executive Officer.

d. **Certifications for Submittals.** All submittals under this Order shall be accompanied by a transmittal containing the following certification that is signed by either the Required Signatory (specified in the table below) or their Authorized Representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

e. To act as an Authorized Representative for a Required Signatory, an individual must be identified[9] and duly authorized in writing by the Required Signatory; this written authorization shall be provided to the Board beforehand, or concurrently with the first submittal signed by the Authorized Representative.

[9] This identification may be in reference to the Authorized Representative's title or position, provided it is one that customarily has the responsibility of supervising a facility's overall operation (e.g., facility manager, superintendent).

Table 1. Required Signatories for Submittals.

Category	Required Signatory
Corporation	Senior Vice President or Equivalent Principal Executive
Limited Liability Companies (LLCs)	Manager
General Partnerships and Limited Partnerships (LPs)	General Partner
Sole Proprietorship	Sole Proprietor
Municipalities and Other Public Agencies	Principal Executive or Ranking Elected/Appointed Official

f. **Data Presentation and Formatting.** In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. Additionally, data shall be summarized in a manner that clearly illustrates compliance/noncompliance with WDRs.

g. **Units.** Absent specific justification, all monitoring data shall be reported in the units specified herein.

h. The Discharger is responsible for submitting the following via GeoTracker:

i. All chemical analytical results for water samples;

ii. The latitude and longitude of any sampling point for which data is reported, accurate to within one meter and referenced to a minimum of two reference points from the California Spatial Reference System, if available, unless specified in the SMP;

iii. The surveyed elevation relative to a geodetic datum of any permanent sampling point for which data is reported;

iv. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevations for which data is reported;

v. A site map or maps showing the location of all sampling points for which data is reported;

vi. The depth of the sampling point or depth and length of screened interval for any permanent monitoring well for which data is reported;

vii. PDF copies of boring logs; and

viii. PDF copies of all reports, Work Plans, and other documents (the document, in its entirety [signature pages, text, figures, tables, etc.] must be saved to a single PDF file) including the signed transmittal letter and professional certification by a California professional civil engineer, certified engineering geologist, or a professional geologist.

i. Upon request, monitoring results shall also be provided electronically in Microsoft Excel to allow for ease of review of site data and to facilitate data computations and/or plotting that Regional Water Board staff may undertake during the review process. Such electronic tables shall include the following information unless directed otherwise by Water Board staff:

i. Well designations;

ii. Well location coordinates (latitude and longitude);

iii. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, screen interval elevation, and a characterization of geology of subsurface the well is located in);

iv. Groundwater depths and elevations (water levels);

v. Current analytical results by constituent of concern (including detection limits for each constituent);

vi. Historical analytical results (including the past five years unless otherwise requested); and

vii. Measurement dates.

D. **Other Provisions**

1. **Submit a Long-Term Flood Protection Plan:** As explained in Finding 19, the Long-Term Flood Protection Plan for the Landfill was submitted on February 21, 2024, and was accepted by the Executive Officer. The Discharger shall continue to submit, every five years, a long-term flood

protection plan acceptable to the Executive Officer. The plan shall identify strategies for the long-term protection of the Landfill from flooding and inundation due to sea level rise, groundwater rise, and extreme climate/weather events. The plan shall:

a. Be prepared by a licensed engineer or geologist and should consider and reference the most current State of California Sea Level Rise Guidance developed by the Ocean Protection Council (OPC) and other science-based climate resources, including but not limited to the following: (1) the San Francisco Bay Shoreline Adaptation Atlas prepared by the San Francisco Estuary Institute (SFEI), (2) the Pathways Climate Institute and SFEI report titled Shallow Groundwater Response to Sea-Level Rise: Alameda, Marin, San Francisco, and San Mateo Counties (2022), and (3) the Coastal Storm Modeling System (CoSMoS) developed by the United States Geological Survey (USGS).

b. Be based on providing protection from the estimated 100-year storm event, on top of the 2050 “intermediate” (5% probability of exceedance at 3.0°C warming) and “intermediate-high” sea level rise scenarios as described in the most recent OPC Sea Level Rise Guidance. The 100-year storm event shall take into account astronomical tides and storm surge as well as wave runup, seasonal effects (e.g., El Niño conditions), and discharge from local tributaries (e.g., as modeled by the USGS CoSMoS tool).

c. Describe how vulnerable features and infrastructure (such as landfill caps, monitoring wells, landfill gas wells, flares, levees, etc.), building uses, and public access will be protected from flooding prior to the projected timing of sea level rise, groundwater rise, and extreme storm event impacts (e.g., prior to projected flooding).

d. Propose a phased adaptation strategy that briefly describes the potential future projects that may be necessary to provide for protection from the 2100 “intermediate” and “intermediate-high” sea level rise scenarios as described in the most recent OPC Sea Level Rise Guidance, as well as potential accompanying changes in groundwater rise and extreme storm events. The strategy shall allow for a range of future actions at different climate change thresholds to address uncertainty and allow for flexibility over the long term.

e. Provide technical justification for the selection of both the 2050 and 2100 sea level rise scenarios.

f. Identify baseline conditions for the site and show at a minimum the following on a map(s): sitewide elevations, vulnerable infrastructure (i.e., waste containment features, wetlands, roads, buildings, remediation systems, piping, wells), existing groundwater levels, the degree of sea level rise, groundwater rise, and/or extreme storm event exposure already noted at the site (if any), sea level elevations at which flooding will impact the site, areas potentially vulnerable to groundwater rise. Data obtained from onsite survey monuments shall be evaluated with respect to land subsidence or settlement and sea level rise risk scenarios.

g. Be updated and submitted every five years with the most recently available and credible information and climate change adaptation guidance at the time of the update, including observed changes in sea levels, groundwater levels, and flooding measured at or as near as possible to the site (e.g., from local tide gauges and monitoring wells), and any observed or potential changes in the adaptive capacity and risk tolerance of vulnerable infrastructure, including an implementation schedule with key milestones that have been or will be met in the future.

When preparing and implementing adaptive management plans, the Discharger shall take into consideration how rising shallow groundwater and any associated flooding may affect long-term cap stability, increase in leachate amounts, leachate and landfill gas migration, contaminant mobility, and post-closure monitoring and maintenance goals at the site (where applicable). Groundwater monitoring data from the site should be used for the most accurate water level onsite; however, if groundwater wells are not present at the site, databases such as GeoTracker can be used to access water table elevations nearby, using USGS, California Department of Water Resources, or other nearby cleanup site well observations.

COMPLIANCE DATE: July 30, 2028, and every 5 years thereafter

2. **Availability**: A copy of these WDRs shall be maintained by the Discharger and shall be made available by the Discharger to all employees or contractors performing work (maintenance, monitoring, repair, construction, etc.) at the Landfill.

3. **Operation and Maintenance**: The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with this Order. Proper operation and maintenance include effective performance, adequate funding, adequate operator

staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with this Order.

4. **Entry and Inspection**: The Discharger shall allow the Regional Water Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

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

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

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

5. **Discharges to Navigable Waters**: Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to section 404 of the Clean Water Act and discharges subject to a general NPDES permit) must file an NPDES permit application with the Regional Water Board.

6. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

    a. Regional Water Board, and

    b. San Mateo County Division of Environmental Health Services (Local Enforcement Agency or LEA).

    The Executive Officer may modify this distribution list as needed.

7. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged into or on any waters of the State, the Discharger shall report such discharge to the Regional

Water Board by calling (510) 622-2369. A written report shall be mailed or submitted electronically to the Regional Water Board within five business days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

8. **Endangerment of Health or the Environment:** The Discharger shall report any event of noncompliance that may endanger human health or the environment. Any such information shall be provided orally to the Regional Water Board within 24 hours of the time the Discharger becomes aware of the circumstances by calling (510) 622-2369. A written submission to the Regional Water Board shall also be provided within five days of the time a Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or his or her delegate, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

ATTACHMENTS

Attachment A—Figures
Attachment B—Self-Monitoring Program

ENFORCEMENT

If, in the opinion of the Executive Officer, the Discharger fails 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 sections 13268, 13350 and 13385. The Regional Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

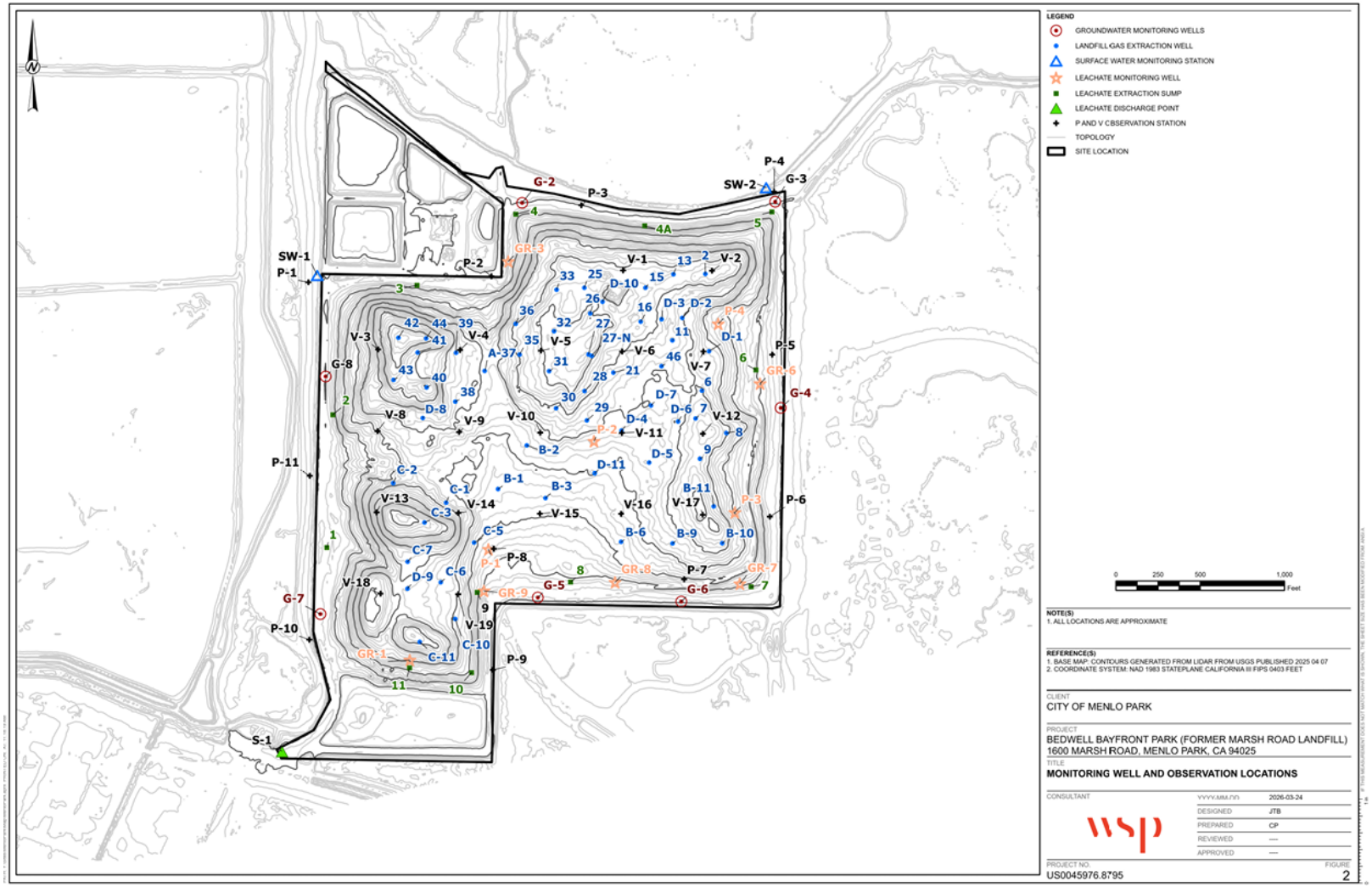
Any person aggrieved by this Regional Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of

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— FIGURES

Figure 1. Bedwell Bayfront Park Landfill Site Location Map.

Figure 2. Bedwell Bayfront Park Landfill Site Plan.



ATTACHMENT B—SELF-MONITORING PROGRAM

The provisions of this attachment are subject to being superseded by a Revised Self-Monitoring Program issued by the Executive Officer pursuant to Water Code section 13267, subdivision (b)(1).

A. General Monitoring Requirements

1. **Quality Assurance/Quality Control Samples.** The QA/QC samples shall be analyzed for VOCs (field blank, equipment blank, and trip blank) or for the same tests as a regular sample (duplicate sample).

2. **Sample Collection and Analysis.** Sample collection, storage, and analyses shall be performed according to the most recent version of U.S. EPA-approved methods or in accordance with a sampling and analysis plan approved by Regional Water Board staff. Analytical testing of environmental media required by this SMP shall be performed by a State-approved laboratory for the required analyses. The director of the laboratory whose name appears on the certification shall be responsible for supervising all analytical work in his/her laboratory and shall have signing authority for all reports or may designate signing of all such work submitted to the Regional Water Board.

3. **Monitoring Instruments and Devices.** All monitoring instruments and devices used to conduct monitoring in accordance with this SMP shall be maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once every two years.

4. **Quality Assurance/Quality Control Sample Monitoring.** The Discharger shall collect duplicate, field blank, equipment blank (if appropriate), and trip blank samples for each semi-annual monitoring event at the following frequencies:

    a. Duplicate sample – 1 sample per 20 regular samples;

    b. Field blank – 1 per semi-annual monitoring event;

    c. Equipment blank – 1 sample per 10 monitoring stations (except where dedicated equipment is used); and

    d. Trip blank – 1 sample per cooler.

5. **Monitoring Wells and Other Monitoring Devices**

a. All monitoring wells shall be constructed in a manner that maintains the integrity of the drill hole, prevents cross-contamination of saturated zones, and produces representative groundwater samples from discrete zones within the water-bearing zone each well is intended to monitor.

b. The Discharger shall repair or install new monitoring wells to replace any monitoring well designated as a Monitoring Point that is damaged, destroyed, or rendered non-functional during the Landfill's post-closure maintenance period.

c. The Discharger shall maintain all devices or designed features installed in accordance with this Order, and in accordance with the SMP, such that they continue to operate as intended without interruption.

d. The Discharger shall install any additional groundwater and leachate monitoring features required to comply with the SMP.

B. **Detection Monitoring Program**

1. Groundwater

a. **Groundwater Elevation.** Whenever samples are collected from a monitoring well at the facility, the Discharger shall determine and log the groundwater elevation.

b. **Monitoring Parameters.** The Discharger shall conduct groundwater detection monitoring in accordance with Table B-1.

c. **Five-Year COCs.** At least once every five years, and alternating between the first and second semiannual events, beginning with the second semiannual sampling event of 2031, groundwater samples shall be further analyzed for the following Constituents of Concern (i.e., Five-Year COCs):

i. Semivolatile Organic Compounds (USEPA Method 8270)

ii. Organophosphorus Pesticides (USEPA Method 8141)

iii. Polychlorinated Biphenyls (USEPA Method 8082)

iv. Chlorinated Herbicides (USEPA Method 8150)

v. PFAS (USEPA Method 1633)[10] [11]

2. Surface Water

a. **Monitoring Parameters.** The Discharger shall conduct surface water monitoring in accordance with Table B-1.

b. **Five-Year COCs.** At least once every five years, and alternating between the first and second semiannual events, beginning with the second semiannual sampling event of 2027, surface water samples shall be further sampled for the Five-Year COCs listed above in section B.1.c.

[10] To ensure the sampling is consistent with State Water Board standards, the analytical laboratory performing PFAS analyses must be accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the method compliant with Department of Defense Table B-15 of Quality Systems Manual (https://denix.osd.mil/edqw/documents/), Version 5.3 or later. The laboratory must be capable of quantifying the target PFAS analytes in EPA Method 1633. A list of laboratories that are accredited by ELAP by analytical method can be found on the State Water Board PFAS webpage (https://www.waterboards.ca.gov/pfas/).

[11] The laboratory must use the minimum standard data qualifiers provided in the DoD QSM. These data qualifiers must be included in the analytical electronic data format (EDF) submittal into GeoTracker. Refer to GeoTracker's data dictionary for the valid values for data qualifiers. A quick search option for data qualifiers (EDF/LNOTE), and other fields within the EDF submittal is available here.

3. Analyte Table

Table B-1. Monitoring Parameters for Groundwater and Surface Water.

Monitoring Parameter	Units	USEPA Method	Groundwater (Wells G-2 – G-8)	Leachate (S-1)	Surface Water (Monitoring Points SW-1, SW-2)
Temperature	°F	Field	Semiannually	Annual	N/A
Depth to Water	Feet	Field	Quarterly	Quarterly	N/A
Specific Conductance	µmhos/cm	Field	Semiannually	Annual	N/A
pH	Standard Units	Field	Semiannually	Annual	Semiannually
Turbidity			Semiannually	N/A	Semiannually
Total Dissolved Solids	mg/L	160.1	N/A	N/A	Semiannually
Ammonia	mg/L	350.3	N/A	N/A	Semiannually
Total Kjeldahl Nitrogen	mg/L	351.2	Semiannually	N/A	Semiannually
Nitrate plus Nitrite as Nitrogen	mg/L	353.2	Semiannually	N/A	N/A
Total Organic Carbon	mg/L	415.1	Semiannually	N/A	Semiannually
VOCs	µg/L	8260B	Semiannually	Annual	N/A
Barium, Beryllium, Chromium, Cobalt, Copper, Nickel, Tin, Vanadium, Zinc	mg/L	6010B	Semiannually	Annual	Semiannually

Monitoring Parameter	Units	USEPA Method	Groundwater (Wells G-2 – G-8)	Leachate (S-1)	Surface Water (Monitoring Points SW-1, SW-2)
Arsenic, Cadmium, Lead	mg/L	6020	Semiannually	Annual	Semiannually
Polycyclic Aromatic Hydrocarbons	ug/L	8270C	N/A	Annual	N/A
Total Phenolics	mg/L	420.1	N/A	Annual	N/A
Total Oil and Grease	mg/L	413.1	N/A	Annual	N/A
Total Suspended Solids	mg/L	160.2	N/A	Annual	N/A
Biochemical Oxygen Demand	mg/L	405.1	N/A	Annual	N/A

4. Concentration Limits for Constituents of Concern (COCs)

    a. The Concentration Limit for each Constituent of Concern (COC) is the “background concentration,” as determined by the statistical methods outlined in Title 27, subdivision (e)(8) of section 20415. (§ 20400, subds. (a), (b).) Concentration Limits are initially proposed by the Discharger, then reviewed and approved by the Board (subject to any necessary revisions). Methods for calculating Concentration Limits shall be proposed in the next WQPS Report and approved by the Executive Officer in accordance with Section 4.b below.

    b. Concentration Limits shall be proposed and/or updated by the Discharger on a periodic basis, in the Annual Report (or a separate technical report). Unless expressly rejected by the Executive Officer in writing, these Concentration Limits shall be incorporated as part of this Order.

    c. If the Discharger fails to submit periodically updated concentration limits, as provided in this SMP, the existing concentration limits shall remain operative, provided that, where appropriate, the

Executive Officer may revert to lower concentrations where warranted based on existing monitoring data.

d. The Concentration Limit for organic compounds that are neither naturally occurring, nor detected in background groundwater samples, shall be taken as the detection limit of the analytical method used (e.g., USEPA Methods 8260, 8270).

5. Procedures to Confirm Evidence of Release

Whenever a COC is detected at a detection monitoring point at a concentration exceeding the applicable WQPS Concentration Limit, the Discharger shall conduct verification sampling to confirm if the exceedance is due to a release, or if it is a false-positive (unless previous monitoring has already confirmed a release for that constituent at that monitoring point). An exceedance of the Concentration Limit shall be considered “measurably significant evidence of a release” that shall be either confirmed or denied through the applicable verification procedure specified in sections B.5.a or B.5.b below.

a. **Procedure for Analytes Detected in Less than 10 Percent of Background Samples (Non-Statistical Method).**

Step 1: Initial Determination. The Discharger shall identify each analyte in the current detection monitoring point sample that exceeds either its respective method detection limit (MDL) or practical quantitation limit (PQL), and for which a release has not been previously confirmed. The Discharger shall conclude that the exceedance provides a preliminary indication of a release or a change in the nature or extent of the release, at that monitoring point, if either: (i) the data contains two or more analytes that equal or exceed their respective MDLs; or (ii) the data contains one or more analyte that equals or exceeds its PQL.

Step 2: Notification to Water Board Staff. Upon determining that there is a preliminary indication of a release, the Discharger shall immediately notify Regional Water Board staff by phone or email (not required if Regional Water Board staff made the determination in writing and notified Discharger).

Step 3: Discrete Retest. Within 30 days of either the Discharger or the Regional Water Board determining that there is a preliminary indication of a release, the Discharger shall collect two new (retest) samples from the relevant monitoring point(s) and analyze the

samples for COCs at issue. (Title 27, §§ 20415(e)(8)(E), 20420(j)(1)-(3).)

Step 4: Confirmation of Release. As soon as the retest data are available, the Discharger shall conclude that measurably significant evidence of a release is confirmed if (not including the original sample) two or more analytes equal or exceed their respective MDLs or if one or more analyte equals or exceeds its PQL. The Discharger shall then immediately verbally notify the Regional Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail within seven days of the verbal notification.

b. **Procedure for Analytes Detected in 10 Percent or More of Background Samples (Statistical or Non-Statistical Method).**

Step 1: Initial Determination. The Discharger shall compare the value reported by the laboratory for each analyte to the statistically-derived Concentration Limit from the most recent report (e.g., Annual Report) that uses the approved statistical procedure. If the value exceeds the Concentration Limit for that analyte, the Discharger shall conclude that there is "measurably significant evidence of a release." (Title 27, § 20420, subd. (i).)

Step 2: Notification to Water Board Staff. Upon determining that there is a preliminary indication of a release, the Discharger shall immediately notify Regional Water Board staff by phone or email (not required if Regional Water Board staff made the determination in writing and notified Discharger).

Step 3: Retest Method. Within 30 days of either the Discharger or the Board determining that there is a preliminary indication of a release, the Discharger shall implement a verification procedure/retest option in accordance with Title 27, section 20415, subdivision (e)(8)(E) and section 20420, subdivision (j)(2). (Title 27, §§ 20415(e)(8)(E), 20420(j).) The verification procedure shall include either a single "composite" retest (i.e., a statistical analysis that augments and reanalyzes the data from the monitoring point that indicated a release) or shall consist of at least two "discrete" retests (i.e., statistical analyses each of which analyzes only newly-acquired data from the monitoring point that indicated a release). (Title 27, § 20415, subd. (e)(8)(E).) The Discharger may use an alternate method previously approved in

writing by the Regional Water Board. The verification procedure shall comply with the requirements of Title 27, section 20415, subdivision (e)(8)(E), in addition to the performance standards of Title 27, section 20415, subdivision (e)(9).

The retest samples shall be collected from the monitoring point where the release is preliminarily indicated and shall be analyzed for the constituents that caused the need for the retest. For any indicated monitoring parameter or constituent of concern, if the retest results of one or more of the retest data suites confirm the original indication, the Discharger shall conclude that measurably significant evidence of a release has been confirmed.

The Discharger shall then immediately verbally notify the Regional Water Board whether or not the retest confirmed measurably significant evidence of a release for the analyte at the monitoring point, and follow up with written notification submitted by certified mail within seven days of the verbal notification.

c. **Next Steps After Confirmation**

If a release has been confirmed under either of the procedures above, the Discharger shall comply with the Response to Release Requirements. If the analyte at issue is a Five-Year COC, that analyte shall be added to list of Constituent Parameters that are monitored on a more frequent basis.

6. Physical Evidence of a Release

If the Discharger determines that there is significant physical evidence of a release, the Discharger shall immediately verbally notify Regional Water Board staff and provide written notification by certified mail within 7 days of such determination, and within 90 days shall submit an amended report of waste discharge (ROWD) to establish an Evaluation Monitoring Program (EMP). (Title 27, §§ 20385(a)(3), 20420(l)(1)-(2).)

7. Response to Release Requirements

a. In the event that the Discharger confirms that there is “measurably significant evidence of a release” per above sections B.5.a or B.5.b, the Discharger shall comply with the time schedule of required actions in Table B-2 below.

b. If the Discharger confirms that there is measurably significant evidence of a release from the WMU at any monitoring point, the

Discharger may attempt to demonstrate that a source other than the WMU caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in groundwater, surface water, or the unsaturated zone.

i. The Discharger may make a demonstration pursuant to Title 27, section 20420, subdivision (k)(7) in addition to or in lieu of submitting both an amended ROWD or an engineering feasibility study; however, the Discharger is not relieved of the requirements and due dates of Title 27, section 20420, subdivisions (k)(6)-(7), unless Regional Water Board staff agree that the demonstration successfully shows that a source other than the WMU caused the evidence of a release or that the evidence resulted from error in sampling, analysis, or statistical evaluation or from natural variation in groundwater, surface water, or the unsaturated zone.

ii. In order to make this demonstration, the Discharger shall notify the Regional Water Board by certified mail of the intent to make the demonstration within seven days of determining measurably significant evidence of a release, and shall submit a report within 90 days of determining measurably significant evidence of a release. (Title 27, § 20420, subd. (k)(7).)

Table B-2. Time Schedule of Required Actions After Confirming Measurably Significant Evidence of Release.

Deadline	Required Action
Immediately after Confirmation	*Additional Sampling* The Discharger shall sample all monitoring points in the affected medium at that WMU and determine the concentration of all monitoring parameters and constituents of concern for comparison with established concentration limits (CLs). Because this constituent of concern (COC) scan does not involve statistical testing, the Discharger will need to collect and analyze only a single water sample from each monitoring point in the affected medium (Title 27, § 20420, subd. (k)(1))

Deadline	Required Action
Within 90 Days of Confirmation	*Submit Evaluation Monitoring Program* The Discharger shall submit an amended ROWD with a proposed Evaluation Monitoring Program (EMP) in accordance with Title 27, section 20420, subdivision (k)(5)(A)-(D), and incorporating the results of the immediate post-confirmation sampling activities required above. Specifically, the EMP shall be designed for the collection and analysis of all data necessary to assess the nature and extent of the release and to determine the spatial distribution and concentration of each constituent throughout the zone affected by the release. (Title 27, §§ 20420(k)(5), 20425(b).) The EMP is subject to Executive Officer approval, including with specified revisions. The EMP shall be considered established upon its approval.
Within 180 Days of Confirmation	*Submit Corrective Action Feasibility Study* The Discharger shall submit, for Executive Officer approval, an initial engineering feasibility study for a Corrective Action Program necessary to meet the requirements of Title 27, section 20430. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern. (Title 27, § 20420, subd. (k)(6).)
Within 90 Days of EMP Approval	The Discharger shall complete and submit the following: (1) Technical Report with EMP results and assessment. (Title 27, § 20425, subd. (b).) (2) Updated Engineering Feasibility Study for corrective action based on data collected to delineate the release and data from the ongoing monitoring program per Title 27, section 20425, subdivision (e). (Title 27, § 20425, subd. (c).) (3) Amended ROWD with a proposed Corrective Action Program in accordance Title 27, section 20430, based on data collected to delineate the release the updated engineering feasibility study. (Title 27, § 20425, subd. (d).)

C. **Other Facility Monitoring**

1. **Regular Visual Inspection.** The Discharger shall perform the regular visual inspections in Table B-3 on a monthly basis during the “wet season” (October 1 to April 30) and quarterly during the “dry season” (May 1 to September 30). The results shall be reported on an annual basis.

Table B-3. Criteria for Regular Visual Inspections.

Category	Criteria
Within Unit	(1) Final Cover Condition (2) Evidence of ponded water at any point on unit outside of any contact storm water/leachate diversions structures on the active face of unit (record affected areas on map). (3) Evidence of erosion and/or of day-lighted refuse. (4) Vegetation coverage.
Unit Perimeter	(1) Evidence of liquid entering WMU or leaving WMU (i.e., leachate seepage), including: (a) estimated size of affected area (record on map) and flow rate; and (b) evidence of odors, including presence or absence, characterization, source, and distance of travel from source. (2) Evidence of erosion and/or of day-lighted refuse. (3) Vegetation coverage.
Receiving Surface Waters	(1) Floating and suspended materials of waste origin—presence or absence, source and size of affected areas. (2) Discoloration and turbidity (description of color, source and size of affected areas).

2. **Annual Facility Inspections.** Prior to September 30, the Discharger shall inspect the Facility to assess repair and maintenance needs for the systems listed below. If repairs are made as result of the annual inspection, problem areas shall be photographed before and after repairs. Any necessary construction, maintenance or repairs shall be completed or

initiated by October 31. The results of such inspections shall be reported annually.

a. Drainage control systems;

b. Cover systems;

c. Leachate collection and removal systems (e.g., leachate storage tanks or sumps, piping, pumps, and control equipment);

d. Landfill gas collection and control systems (if any);

e. Groundwater monitoring wells;

f. Stormwater management system elements (e.g., perimeter drainage and diversion channels, ditches and down-chutes, and detention and sedimentation ponds or collection tanks); and

g. Facility preparedness for winter conditions (e.g., erosion and sedimentation control).

3. **Major Storm Events.** Within seven days of any Major Storm Event, the Discharger shall inspect the Facility for damage to any precipitation diversion and drainage facilities, and all landfill side slopes. Necessary repairs shall be completed within 30 days of the inspection. The Discharger shall take photos of any problem areas before and after repairs. For purposes of this provision, a “Major Storm Event” is defined as a storm event greater than the 10-year probabilistic rainfall intensity that results in more than 2.8 inches of precipitation over a 24-hour period.

4. **Other Required Notifications.** The Discharger shall immediately notify Regional Water Board staff of the following occurrences:

a. Any failure which threatens the integrity of containment features or the WMU shall be promptly corrected in accordance with an approved method. (Title 27, § 21710, subd. (c)(2).)

b. Any flooding, unpermitted discharge of waste off-site or outside of WMUs, equipment failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.

D. **Reporting Requirements**

1. **Semiannual Reporting.** The Discharger shall submit semiannual Self-Monitoring Reports (SMRs) on October 31 and April 30. Each SMR shall contain the information and materials listed below.

   a. The results of all monitoring activity required to be conducted on a semiannual or more frequent basis (unless otherwise specified herein).

   b. Affirmation that all sampling activities referenced in the report were conducted in accordance with the requirements of this Order, or the approved sampling and analysis plan, if applicable.

   c. Maps/aerial photographs depicting locations of all observation stations, monitoring points referenced in the report.

   d. In tabulated format, all monitoring data required to be reported on a semiannual basis.

   e. For each groundwater monitoring point referenced:

      i. The times each water level measurement was taken;

      ii. The type of pump or other device used to purge and elevate pump intake level relative to screening interval;

      iii. The purging methods used to stabilize water in the well bore before sampling (including pumping rate);

      iv. The equipment and methods used for the monitoring of pH, temperature and EC during purging activity, and the results of such monitoring;

      v. Methods for disposing of purged water; and

      vi. The type of device used for sampling, if different than the one used for purging.

   f. Concentrations (or other results) for all Monitoring Parameters (including Five-Year COCs, when analyzed); a comparison to operative WQPS Concentration Limits; and results of any Retest Procedures (see SMP section B.5).

g. Evaluation as to effectiveness of existing leachate monitoring and control facilities, and runoff/run-on control facilities.

h. Laboratory statements of results of all analyses evaluating compliance with the WDRs.

2. **Annual Reporting.** In addition to the above-listed information, the second semiannual SMR, due on October 31, shall also contain the information and materials listed below.

a. The results of all monitoring required to be conducted on an annual or five-year basis (i.e., Five-Year COCs), and any other information that is required to be reported on an annual basis.

b. Graphs of all analytical data from each POC monitoring point, from each non-POC downgradient monitoring point, and from each background monitoring point. (§ 20415, subd. (e)(14).)

c. Graphs of historical trends for all Monitoring Parameters, including Five-Year COCs, with respect to each monitoring point over the past five calendar years.[12]

d. Evaluation of Monitoring Parameters with regard to the cation/anion balance, and graphical presentation of same in a Stiff diagram, Piper graph, or Schoeller plot.

e. In tabulated format, historical monitoring data for which there are detectable results, including data for the previous year.

f. For each groundwater well, quarterly hydrographs showing the elevation of groundwater with respect to the top and bottom of the screened interval, and the elevation of the pump intake.

g. Comprehensive discussion of the Facility's compliance record, and the result of any corrective actions taken or planned which may be needed to attain full compliance with the WDRs.

h. Summary of monitoring results, indicating changes made or observed since the previous Annual Monitoring Report.

[12] Each graph shall contain individual data points (not mean values) and be appropriately scaled to accurately depict statistically significant trends or variations in water quality.

i. Annual updates to Concentration Limits for all Monitoring Parameters and WQPS Monitoring Points.

3. **General Requirements.** All SMRs and other technical reports submitted under this SMP shall comply with the following requirements. (See also section C.3 of this Order for other General Reporting Requirements.)

a. **Graphic Presentation**: The following maps, figures, and graphs (if applicable) shall be included in each SMR to visually present data collected pursuant to this SMP:

i. Plan-view maps showing all monitoring and sampling locations, waste management units, containment and control structures, treatment facilities, surface water bodies, and site/property boundaries;

ii. Groundwater level/piezometric surface contour maps for each groundwater-bearing zone of interest showing inferred groundwater gradients and flow directions under/around the Landfill based upon the past and present water level elevations and pertinent visual observations; and

iii. Any other maps, figures, photographs, cross-sections, graphs, and charts necessary to visually demonstrate the appropriateness and effectiveness of sampling, monitoring, characterization, investigation, or remediation activities relative to the goals of this SMP.

b. **Tabular Presentation**: The following data (if applicable) shall be presented in tabular form and included in each SMR to show a chronological history and allow easy reference:

i. Well designation;

ii. Well location coordinates (latitude and longitude);

iii. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation);

iv. Groundwater depths;

v. Groundwater elevations;

vi. Current analytical results (including analytical method and detection limits for each constituent);

vii. Historical analytical results (including at least the past five years unless otherwise requested); and

viii. Measurement dates.

c. Compliance Evaluation Summary and Discussion:

i. A summary and certification of completion of all environmental media monitoring, standard observations, and facilities inspection.

ii. A discussion detailing compliance with maintaining hydraulic control of Landfill leachate;

iii. A detailed accounting of repair and maintenance activities needed;

iv. The signature of the laboratory director or his/her designee indicating that he/she has supervised all analytical work in his/her laboratory; and

v. A discussion of the field and laboratory results that includes: data interpretations; conclusions; recommendations; newly implemented or planned investigations and remedial measures; data anomalies; variations from protocols; condition of wells; and effectiveness of leachate monitoring and control facilities.

d. **Appendices**: The following information shall be provided as appendices in electronic format only unless requested otherwise by Board staff and unless the information is already contained in a sampling and analysis plan approved by Regional Water Board staff:

i. New boring and well logs;

ii. Method and time of water level measurements;

iii. Purging methods and results, including the type of pump used, pump placement in the well, and pumping rate; equipment and methods used to monitor field pH, temperature, and electrical conductivity; calibration of the field equipment used to measure

pH, temperature, conductivity, and turbidity; and the method of disposing of purge water;

iv. Sampling procedures, field, equipment, and travel blanks, number and description of duplicate samples, type of sample containers and preservatives used, the date and time of sampling, the name of the person actually taking the samples, and any other relevant observations; and

v. Documentation of laboratory results, analytical methods, detection limits (DLs) and reporting limits (RLs), and Quality Assurance/Quality Control (QA/QC) procedures for the required sampling.

E. Record-Keeping

The Discharger shall maintain information required pursuant to this SMP for at least five years. The five-year period of retention shall be extended during any unresolved litigation regarding a discharge or when requested by the Regional Water Board.