**MONITORING AND REPORTING PROGRAM NO. R9-2023-0095**
**FOR REPUBLIC SERVICES, OTAY LANDFILL INC.,**
**OTAY ANNEX SANITARY LANDFILL**
**SAN DIEGO COUNTY**

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The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) adopted Monitoring and Reporting Program No R9-2023-0095 (MRP) pursuant to Water Code section 13267, which authorizes the San Diego Water Board to require Republic Services, Otay Landfill Inc. (Discharger) to furnish technical and monitoring program reports. The San Diego Water Board finds that:

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

2. **Purpose**. This MRP is necessary for the San Diego Water Board to determine the Discharger's compliance with Order No. 90-09, as amended, *Waste Discharge Requirements for the County of San Diego, Otay Annex Sanitary Landfill, San Diego County,* via surface water, vadose zone, groundwater, and leachate monitoring. The San Diego Water Board developed the requirements of this MRP in accordance with CCR title 27, sections 20415 et seq., 20420, and 20430. The Discharger's implementation of the Detection Groundwater Monitoring Program (DMP) will ensure the early detection of a release of waste constituents and waste degradation byproducts from the Otay Annex Sanitary Landfill (Landfill). The Discharger is currently implementing a Corrective Action Groundwater Monitoring Program (CAP) in response to a release of waste constituents and waste byproducts from the Landfill in 1993.[1] The Discharger proposed, and the Board agreed to monitored natural attenuation as the preferred remedial action. The Discharger's implementation of the CAP ensures the effectiveness of the Discharger's preferred remedial action. The Discharger's monitoring programs will also ensure the long-term protection of groundwater and surface water quality and beneficial uses within the Otay Valley Hydrologic Area of the Otay Hydrologic Unit.

[1] Joint Technical Document for Otay Landfill, Chula Vista, California (1993), amended June 2016.

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

4. **California Environmental Quality Act.** The Landfill is an existing facility and, as such, regulatory actions related to the lined portions of the landfill are exempt from the provisions of the California Environmental Quality Act in accordance with the California Code of Regulations, Title 14, Chapter 3, Article 19, section 15301.

5. **Applicability.** MRP No. R9-2023-0095 supersedes MRP No. 90-09 and must be implemented immediately upon adoption by the San Diego Water Board.

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

## PART I. SAMPLING AND ANALYSIS PLAN

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

**A. STANDARD MONITORING PROVISIONS**. The Discharger must submit a Sampling and Analysis Plan that incorporates these provisions and describes the sampling and analysis protocols for groundwater, leachate, surface water, and vadose zone monitoring for the Landfill. The San Diego Water Board must receive the Sampling and Analysis Plan within 90 days of adoption of this MRP.

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

2. **Methods of Analysis.** Specific methods of analysis proposed for use in groundwater and surface water monitoring at the Landfill must be consistent with the most current version of the U.S. Environmental Protection Agency's

(USEPA) SW-846[2] or 40 CFR, part 136.[3] The Discharger must include as part of the Sampling and Analysis Plan, the rationale to use alternative analysis methods or test procedures. The San Diego Water Board must approve the proposed changes prior to implementation.

3. **Sampling Frequency.** All monitoring results, including results from additional sampling points or constituents of concern (COC)[4] that the Discharger monitors more frequently than required by this MRP, must be documented in the monitoring reports. The Discharger must also report the increased frequency of monitoring and specific monitoring location(s) to the San Diego Water Board.

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

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

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

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

    b. The depth to groundwater at all monitoring locations.

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

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

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[2] USEPA guidance document SW-846, "Test Methods for Evaluations of Solid Waste, Physical/Chemical Methods."
[3] Title 40 CFR, part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants: Procedures for Detection and Quantification."
[4] COCs are derived from 40 CFR part 257, Appendix I. Appendix I COCs are those constituents likely to be derived from landfill wastes and are therefore appropriate to use as monitoring parameters when the intent of monitoring is to determine whether a release from the landfill has occurred. The COCs from Appendix I also serve as the initial detection groundwater monitoring parameter for the Landfill.

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

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

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

h. The chain of custody forms.

**B. RECORD RETENTION.** The Discharger must retain all monitoring records, including calibration and maintenance records, and copies of all reports required by this MRP. The Discharger must maintain records for a minimum of five years from the date of sampling or measurement. The San Diego Water Board may extend this period during any unresolved litigation regarding the generation of excess leachate at Otay Landfill.

**C. STANDARD SAMPLING, ANALYSIS, AND REPORTING PROTOCOLS.** The Discharger must incorporate the following standard protocols as part of the Sampling and Analysis Plan:

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

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

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

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

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

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

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

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

**D. DETECTION GROUNDWATER MONITORING.** The Sampling and Analysis Plan must include a Detection Groundwater Monitoring Program (DMP) compliant with the specific requirements and performance standards found in CCR title 27, sections 20415 and 20420, and 40 CFR parts 258.50 and 258.54.

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

a. A sufficient number of background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater that has not been affected by a release from the Landfill.[5]

[5] CCR title 27, section 20410(b)(1)(A).

b. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the Point of Compliance and allow for the detection of a release from the Landfill.[6]

c. A sufficient number of monitoring points installed at additional locations and depths to yield groundwater samples from the uppermost aquifer to provide the best assurance of the earliest possible detection of a release from the Landfill.[7]

d. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from portions of the zone of saturation, including other aquifers not monitored pursuant to CCR title 27, section 207415 (b)(1)(B)(2), to provide the best assurance of the earliest possible detection of a release from the Landfill.[8]

c. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from zones of perched water to provide the best assurance of the earliest possible detection of a release from the Landfill.[9]

d. Monitoring point locations and depths that include the zone(s) of highest hydraulic conductivity in each groundwater body monitored.[10]

2. **Detection Groundwater Monitoring Program Network.** The groundwater monitoring network for the Landfill is comprised of a background well, compliance well, downgradient monitoring wells, and piezometers. The background monitoring well is OTGW-22. The compliance well is OTGW-24. The downgradient monitoring wells are OTGW-11, OTGW-17, OTGW-20, OTGW-25, OTGW-27R, and OTGW-28. The piezometers for measuring groundwater elevations are OTGW-9, OTGW-21, and OTGW-C

3. **Detection Monitoring Program Elements.** The DMP must implement all applicable State and federal requirements[11] and all applicable elements of a DMP. The DMP must include the following minimum elements:

[6] CCR title 27, section 20415(b)(1)(8)(1).
[7] CCR title 27, section 20415(b)(1)(8)(2).
[8] CCR title 27, section 20415(b)(1)(8)(3).
[9] CCR title 27, section 20415(b)(1)(8)(4).
[10] CCR title 27, section 20415(b)(1)(8)(5).
[11] CCR title 27, section 20385 through 20430, and 40 CFR, Part 258.58.

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

b. The groundwater samples must be collected, analyzed, and reported for the general chemistry parameters and COCs at the frequencies shown in **Table 1 of Part I.B**, and any additional parameters included in the approved Sampling and Analysis Plan.

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

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

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

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

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

h. Groundwater elevations must be monitored ***at least quarterly***, including the times of expected highest and lowest elevations of the water level for the respective groundwater body.[12] Groundwater elevations must be measured within a period short enough to avoid temporal variations in groundwater elevations.

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

[12] In accordance with CCR title 27, section 20415(e)(15).

**Table 1 – Groundwater Monitoring Parameters**

| Monitoring Parameters | Units | Sampling Frequency[13] |
|---|---|---|
| pH[14] | pH | Semi-annual |
| Field Conductivity[14] | µS/cm | Semi-annual |
| Turbidity[14] | NTU | Semi-annual |
| Total Dissolved Solids | mg/l | Semi-annual |
| Chloride | mg/l | Semi-annual |
| Sulfate | mg/l | Semi-annual |
| Nitrate as Nitrogen | mg/l | Semi-annual |
| Volatile Organic Compounds[15] | µg/l | Semi-annual |
| Metals[15] | mg/l | Semi-annual |

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

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

   a. A complete sample analytical report.

   b. A complete laboratory QA/QC report.

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

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

[13] The San Diego Water Board Executive. Officer may increase or decrease the monitoring frequency if determined to be necessary.
[14] These monitoring parameters are field parameters measured during sampling activities. Note: mg/l = milligram per liter; µg/1 = micrograms per liter; NTU = Nephelometric turbidity units; µSiem = micro siemens/centimeter.
[15] The list of monitoring parameters are derived from 40 CFR, Part 258, Appendix I - "Constituents for Detection Monitoring." These constituents are generally expected to be in or derived from wastes associated with landfill.

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

i. The laboratory has been accredited by the Environmental Laboratory Accreditation Program (ELAP) and has demonstrated to DDW ELAP its capacity to analyze environmental samples using approved methods.

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

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

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

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

**E. CORRECTIVE ACTION GROUNDWATER MONITORING.** The Sampling and Analysis Plan must include a Corrective Action Groundwater Monitoring Program (CAP) compliant with the specific requirements and performance standards found in CCR title 27, sections 20415 and 20430, and 40 CFR parts 258.50, 258.55, and 258.56.

1. **Corrective Action Groundwater Monitoring Program Requirements.** The CAP must include:

a. A sufficient number of background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater that has not been affected by a release from the Landfill.[16]

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

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

uppermost aquifer to provide the data needed to evaluate the effectiveness of the correction action program.[17]

c. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from portions of the zone of saturation, including other aquifers, not monitored pursuant to CCR title 27, section (b)(1)(D)(1).[18]

d. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from portions of the zones of perched water to provide the data needed to evaluate the effectiveness of the corrective action program.[19]

e. Water Quality monitoring must be conducted semi-annually at all compliance wells in accordance with CCR title 27, section 20415(e)(12)(B).

2. **Corrective Action Program Groundwater Monitoring Network.** The groundwater monitoring network for the Landfill is comprised of a background well, compliance well, downgradient monitoring wells, and piezometers. The background well is OTGW-22. The compliance well is OTGW-24. The downgradient monitoring wells are OTGW-F and OTGW-X. The downgradient extraction wells are EW-1, EW-2 and EW-3. The piezometers for measuring groundwater elevations are OTGW-9, OTGW-21, and OTGW-C.

3. **Evaluation of Corrective Action Program.** The Discharger must comply with the following requirements when the Landfill has and continues to have, measurably significant concentration of COCs in groundwater, to bring the site into compliance with the applicable State and federal regulations.[20]

a. The Discharger must submit technical reports evaluating the effectiveness of the corrective action program as an appendix to the semiannual monitoring reports required by this MRP.

b. The Discharger must submit revised Corrective Action Measures in the next semi-annual monitoring report if the San Diego Water Board or the Discharger determines that the current corrective action measure are ineffective.

[17] CCR title 27, section 20415(b)(1)(D)(1).
[18] CCR title 27, section 20415(b)(1)(D)(2).
[19] CCR title 27, section 20415(b)(1)(D)(3).
[20] CCR title 27, section 20430 and 40 CFR, Part 258.58.

4. **Corrective Action Groundwater Monitoring Program Elements.** The CAP must implement all applicable State and federal requirements[21] and all applicable elements of a federal Assessment Monitoring Program (AMP) and a State Corrective Action Program, concurrent with the requirements for the detection groundwater monitoring program as described above. The CAP must include the following minimum elements:

   a. Implement statistical or non-statistical data analysis at any given compliance well outside of the release, for those constituents of concern that are in Detection Mode at that well.

   b. Provide graphical representation of groundwater monitoring data collected from compliance wells. The graphs should include concentration-versus-time graphs, for any giving monitoring point within the release, for all constituents of concern that are in Tracking Mode at that well.

   c. Utilize an initial scan for all Appendix 11[22] constituents at all compliance wells involved in the release to be sure that the monitoring parameter list for each well includes all Appendix II constituents detectable in groundwater.

   d. Utilize a periodic (five-yearly) presence/absence screening of all constituents of concern rather than statistical/non-statistical data analysis, at all appropriate wells to keep the monitoring parameter list updated to include all constituents detectable in groundwater after the initial scan.

   e. Utilize annual leachate sampling for all non-constituent of concern Appendix II constituents to keep the constituent of concern (COC) list updated to include all Appendix II constituents that the Landfill could release; and

   f. Implement an automatic update procedure to assure that the monitoring parameter and COC lists remain current.

**F. LEACHATE MONITORING**. The Sampling and Analysis Plan must include a leachate monitoring plan for identifying the COCs being produced from the Landfill that would likely appear in groundwater should a breach of the liner system or a release from the unlined (legacy) portion of the Landfill occur.

[21] CCR title 27, section 20385 through 20430, and 40 CFR, Part 258.58.
[22] Hereinafter, all references to Appendix I or II will be to 40 CFR, Part 258.

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

   a. Detected in a sample of the Landfill's leachate.

      The Discharger must submit the analytical results to the San Diego Water Board office no later than ***5:00 pm on October 30th***. The Discharger must include an identification of all detected Appendix II[23] constituents that are not currently on the Landfill's COC list (non-COCs).

   b. Detected in a retest of a leachate sample collected the following March.

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

2. **Establishing Background Values for New COCs.** The Discharger must establish a reference background value in groundwater following the procedures required in the regulations[24] for each Appendix II constituent (excluding synthetic constituents) that is added to the Landfill's COC list (as described above). The Discharger must include the data as a separate item in the next monitoring report submitted once this reference set of background data is collected.

[23] 40 CFR, Part 258.
[24] CCR title 27, section 20415, et seq.

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

3. **Narrowing the Monitoring List of COCs.** This MRP allows the Discharger to take the following steps to narrow the scope of monitoring parameters and reduce the associated costs of monitoring for waste constituents identified as groundwater monitoring parameters:

   a. Analyze groundwater samples for volatile organic constituents listed in Appendix I.

   b. Propose the use of surrogate monitoring parameters, as appropriate (i.e., pH, total dissolved solids (TDS), chloride (Cl), sulfate ($S0_4$) and nitrate ($N0_3$) to monitor groundwater at the Landfill for a release of metals listed in Appendices I and II.

   c. Analyze soil vapor samples from either the vadose zone or a soil vapor monitoring network (soil gas probes) or an active landfill gas (LFG) control system at the Landfill. Analytical results from soil vapor (or LFG) samples may be used to identify additional specific volatile organic constituents (VOCs) listed in Appendix II that are being generated by the wastes within the Landfill. The Discharger may propose that additional volatile organic constituents, listed in Appendix II and detected and verified by retest of vapor samples collected from properly constructed and maintained soil vapor monitoring probes or an active LFG control system, may be used to augment the groundwater monitoring parameters for the Corrective Action Monitoring Program.

**G. FIVE YEARLY COC SCAN**. The Sampling and Analysis Plan must include a Five-Yearly COC Scan[25] to create a "COC List" of constituents present in groundwater at each well. Any unknown peaks on the chromatographs must be reported along with an estimate of the concentration of the unknown analyte(s) as part of a Five-Yearly COC Scan. A second column or second method confirmation procedures must be performed to attempt to identify and more accurately quantify the unknown analyte(s), when unknown peaks are encountered. The Discharger must resample the well and reanalyze the sample for the newly detected constituent(s) if

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

an analyte is detected that is not yet on the COC list ***within 30 days*** of the original sampling event. All newly detected constituents must become part of the COC list for regular detection and corrective action groundwater monitoring at the Landfill when verified by a retest.

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

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

**H. SCHEDULE OF ACTIVITIES.** The Sampling and Analysis Plan must include a schedule for implementing all the activities described in the various monitoring programs detailed in the plan.

## PART II. METHODS OF ANALYSIS

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

The objective of the CAP is to monitor the effectiveness of the remedial alternatives initiated and implemented by the Discharger to achieve compliance with the water quality protection standard adopted for the Landfill. The Discharger must analyze groundwater samples collected from each CAP to determine which COCs are present and how their concentrations are changing over time to achieve this objective.

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

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

**C. WATER QUALITY PROTECTION STANDARD.** The Landfill is in violation of its water quality protection standard (Water Standard) any time a constituent in a given groundwater well monitoring in "detection mode" exhibits a measurably significant increase over the applicable background data set.[26] All groundwater wells monitored in "tracking mode" remain in violation of the Water Standard until completion of a successful proof period that ends the CAP.[27] The Water Standard for the Landfill consists of the following components:

1. **Constituents of Concern.** The COCs for the Landfill, including any updates, are listed in Appendix 1. Statistical and non-statistical data analysis is limited to only those COCs that are on the current COC list.[28]

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

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

   b. A concentration limit greater than background, justified through a statistical analysis of relevant data (including the background dataset) and a demonstration that background concentrations would not be technologically or economically feasible for the COCs for a given monitoring well.[29] A concentration limit greater than background will only be considered for COCs present in monitoring wells associated with corrective action monitoring.[30]

3. **Compliance Period.** The compliance period for the Landfill must include the remaining years of active life of the Landfill and the closure period of the Landfill. The Discharger must continue to monitor and maintain the Landfill

[26] CCR title 27, section 20415(e)(7).
[27] CCR, title 27, section 20430(g), and 40 CFR, Part 258.58(e).
[28] CCR title 27, section 20395.
[29] CCR title 27, section 20400(c)
[30] CCR title 27, section 20400(h).

until the San Diego Water Board determines that the Landfill no longer poses a threat to water quality.[31]

**D. VALIDATION OF BACKGROUND DATASETS.** The Discharger may need to validate an intra-well background dataset for COCs at an existing well if there have not been enough sampling events at that well to create a background data set, and for each new well installed as part of DMP. The Discharger must report the validated background dataset, specifying the COCs and monitoring well(s) affected, in the next scheduled monitoring report if the Discharger uses an intra-well approach. The San Diego Water Board may determine that affected wells will become part of the CAP well network if the Discharger detects COCs in monitoring wells while establishing the background dataset.

1. **Accelerated Background Data Procurement.**

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

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

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

   b. **Rarely Quantified Constituents.** The Discharger must identify the highest value in the pooled dataset from all background wells that have passed validation or, in a case where all applicable upgradient well data

[31] CCR title 27, section 20950(a)(2).

is non-detect, the MDL, for a COC that, absent the Landfill's existence, would seldom be detected in groundwater (e.g., synthetic constituents). The Discharger must use this value as a basis of comparison to validate the data points in the proposed intra-well background dataset. The initial intra-well background dataset for that downgradient well must consist of all data points in the proposed intra-well background dataset that are less than this value.

3. **Validate Upgradient Data for Synthetic Organic Appendix II COCs.** Synthetic organic constituents should not be present at detectable concentrations in groundwater samples collected from background wells. Detections of synthetic organic constituents indicate either analytical error (around 1-percent of the time) or that the constituent comes from the Landfill or from another source. If synthetic organic constituents are detected in more than 10-percent of analyses in background wells, the Discharger must investigate the source of the organic constituents in accordance with the requirements in **Part II.F** of this MRP.

4. **Performance Standards.** All statistical or non-statistical data analysis methods must meet the applicable State and federal requirements.[32]

5. **Regular Retest Method.** Regular retesting is required to validate data that indicates increasing COC concentrations. For wells in detection mode, the Discharger must conduct up to two re-tests whenever test results signify an increased concentration, to verify the initial data.[33] If the first retest validates the preliminary indication, a second retest must be conducted. A measurably significant increase exists if both retest samples validate the preliminary indication.

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

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

1. **Non-statistical Method for Detection Mode COCs Seldom Found in Background.** The Discharger must use this data analysis jointly for each

[32] CCR title 27, section 20415(e)(9) and 40 CFR, Part 258.53.
[33] CCR title 27, section 20415(e)(8)(E)(2).

constituent that exceeds its MDL in less than 10 percent of its background dataset. A measurably significant indication of a release occurs in each sample when:

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

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

2. **Discrete Retest.** The Discharger must perform a discrete retest to verify the results[34] if an approved data analysis method provides a preliminary indication that there has been a measurably significant increase for a COC in each monitoring well. The Discharger must take the following steps in conducting a retest:

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

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

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

**F. SYNTHETC ORGANIC COCS IN BACKGROUND WELLS**. An "excessive proportion" of a COC exists when 10-percent or more of the COC data collected from a given background well are reported to have concentrations equal to or greater than the MDL. An "excessive frequency" exists when a COC is reported to have concentrations equal to or greater than the MDL for two consecutive sampling events. The Discharger must notify the San Diego Water Board ***within***

[34] CCR title 27, section 20415(e)(8)(E).

***30 days*** of the determination that either an "excessive proportion" or "excessive frequency" exists. Furthermore, ***within 180 days*** of the determination, the Discharger must submit a report to the San Diego Water Board that evaluates whether the COC is from the Landfill and propose appropriate changes to the monitoring program. Based on the evaluation, if the San Diego Water Board concludes that the organic constituent originated from a source other than the Landfill, then the Discharger must do the following:

1. **Determination of Secondary Source.** The Discharger must make appropriate changes to the monitoring program, such as using an appropriate statistical "inter-well" comparison procedure with a suite of background data that reflects the expected concentration for that constituent. The Discharger must complete the following:

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

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

    c. Install a new upgradient or cross-gradient background well in a portion of the aquifer that will provide data representative of background conditions for the Landfill's compliance wells ***Within 120 days.***

2. **Ongoing Background Well Test.** The Discharger must continue to monitor background wells, for each COC, each time that COC is monitored at downgradient wells (excluding retests). New background well data must be included in the Annual Compliance Report and included on a time-versus-concentration plot for that "background" well and constituent.[35] Any time such a plot for a given well and constituent shows two successive data points in excess of the MDL for any organic constituent that has not already been investigated at that well, the Discharger must notify the San Diego Water Board ***within 30 days*** of the sampling event by phone or email, and must initiate an investigation ***within 180 days*** of noting this condition, in accordance with **Part II.F** of this MRP.

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

Part III provides a description of the reports required for submittal to the San Diego Water Board.

[35] California Code of Regulations, title 27, section 20415(e)(14).

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

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

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

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

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

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

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

6. **Leachate Production.** The total volume of leachate collected each month during the monitoring period and the method of disposal of the leachate (i.e., reused at the Landfill for dust control, sent offsite for treatment, etc.).[36]

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

   a. The well number.

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

b. The sampling date and time.

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

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

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

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

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

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

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

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

13. **Evaluation of Corrective Actions.** A written summary that includes a discussion and evaluation of the effectiveness of corrective action measures

implemented at the site to mitigate the release of waste constituents from the Landfill.

14. **Data Tables.** All data obtained during the current, and previous four semi-annual reporting periods (two years total) are presented in tabular form. Any electronic files submitted to the San Diego Water Board in accordance with Order No. 90-09, as amended, and this MRP, must not be password protected.

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

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

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

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

3. **Semi-Annual Groundwater Monitoring Report**. Include the Semi-Annual Groundwater Monitoring Report due annually on ***October 30th***. This report may be submitted on a CD as an appendix to the Annual Compliance Report.

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

5. **Graphical Display**. Include a graphical display for all data collected within at least the previous five calendar years for each monitoring point and background monitoring point.[37] Each graph must plot the concentration of one or more constituents over time for a given monitoring point. For any given constituent, the scale for all plots should be the same semi-log plot to facilitate comparison and identification of trends. The San Diego Water Board may direct the Discharger to carry out a preliminary investigation, in accordance with **Part II.F** of this MRP, on the basis of any outliers noted in the plotted data, to determine whether a release is indicated. Trend analyses must include the identification of current trends, a comparison to previously identified trends, and a discussion of any significant changes in the trends. This must be prepared for groundwater, surface water (including seeps and springs), and any vadose zone monitoring points (including subdrains, lysimeters, or landfill gas).

6. **Surface Water Monitoring Data Summary**. Include a Surface Water Monitoring Data Summary consisting of all surface water data collected during the past year[38]. The Surface Water Monitoring Data Summary must also contain a brief discussion of the findings and observations made during the past year regarding surface water sampling, and any recommendations concerning future modifications to the surface water monitoring system.

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

8. **Sludge Wastes Data Summary**. Include a Sludge Wastes Data Summary with a monthly tabulation of all sludge waste data collected during the reporting period, including the specific sources of sludge wastes, the weight (tons), and composition/types of sludge wastes[39] discharged at the Landfill.

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

[38] Surface water monitoring data includes surface water samples collected as part of the CAP or in compliance with Order No. WQ 2014-0057-DWQ, National Pollutant discharge Elimination System (NPDES) Order No. WQ 2014-0057-DWQ, General Permit for Storm Water Discharges Associated with Industrial Activities.

[39] Sludge wastes include dewatered sludge (CCR title 27, section 20164), dewatered sewage or water treatment sludge, including primary sludge, secondary sludge,

The Sludge Wastes Data Summary must also include a discussion that includes confirmation that the primary and secondary sludge wastes and mixtures of primary / secondary sludges, and water treatment sludge, met the minimum moisture content and ratio of solids-to-liquids (by weight), required by the Order No. 90-09, as amended, and CCR title 27. The Sludge Wastes Data Summary must also include a table that reports weight (tons) of sludge wastes discharged at the Landfill.

9. **Dredged Sediments Summary**. Include a Dredged Sediments Summary consisting of a monthly tabulation of all dredged sediment discharges and associated data collected during the reporting period, including the specific source(s) of dredged sediments, the weight (in tons), volume (in cubic yards) of dredged sediments accepted, and the results of moisture content analyses, including test methods used in the measurement and calculations. The Dredged Sediments Summary must also include a written confirmation and a certification statement, which ensures the dredged sediments meet the non-hazardous waste classification and moisture content criteria for disposal at the Landfill.

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

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

12. **Site Conditions Summary**. Include a Site Conditions Summary consisting of a comprehensive discussion regarding the condition of the Landfill, including,

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mixtures of primary and secondary sludges, or water treatment sludge (CCR title 27, section 20220(c)), grit and bar screen wastes.
https://www3.epa.gov/npdes/pubs/final_sgrit_removal.pdf

but not limited to, interim cover areas, the current operational area, maintenance roads, the chip and grind area, the composting area, the materials recycling area, the detention basin, the erosion and drainage control measures implemented to control run-on and run-off during the rainy season, the condition of monitoring wells, piezometers, landfill gas probes, and any other monitoring device located at the Landfill. The discussion should also highlight any areas of noncompliance observed and repaired during the previous year and should be documented with photographs and inspection reports.

13. **Compliance Summary**. Include a comprehensive discussion of the compliance record, and of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with Order No. 90-09, as amended, or this MRP.

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

1. **Construction Quality Assurance Report**. The Dischargers must provide the San Diego Water Board with a complete Construction Quality Assurance (CQA) Report that contains all the final report elements and the results from laboratory and field testing referenced in the approved CQA Plan for future lateral expansion stages of the Landfill. The preparation of the final CQA Report, and supervision of the CQA Program, must be performed by persons having the qualifications required by CCR title 27, section 20324(b). The CQA Report must be submitted upon completion of construction activities associated with each stage of expansion or closure of the Landfill.

2. **Leachate Monitoring Reports**. Leachate sampling must be completed each September, and the data must be provided in a report that includes an identification of all detected Appendix II constituents that are not on the Landfill's COC list. The Discharger must ensure the leachate monitoring report is received by the San Diego Water Board by ***5:00 p.m. on October 30th***.

   For leachate sampling requiring a retest, a report must be received by the San Diego Water Board office by ***5:00 p.m. on April 30th*** of the following calendar year. This report must identify all constituents that were detected in both the previous calendar year's September sample and in the March retest sample and must add these constituents to the Landfill's COC list, and for at least two years, must also add them to the monitoring parameter list. The report must also include an updated COC list that includes the Appendix II

constituents that are newly detected in both the September and March leachate samples.

3. **Five Year COC Reports.** Every five years, the Discharger must complete a COC analysis on groundwater samples to update and verify the COC list included in the semi-annual monitoring reports. The COC analysis must include all COCs found in Appendix II of 40 CFR part 258. The next COC Report must be received by ***5:00 p.m. on April 30, 2027***. Subsequent COC reports must be submitted every fifth year, as an appendix to the Annual Compliance Report.

4. **Violation Reports.** If the Discharger determines there has been a violation of any requirements in MRP No. R9-2023-0095, then the Discharger must notify the San Diego Water Board office by phone ***within 24 hours*** once the Discharger has knowledge of the violation. The San Diego Water Board may, depending on the severity of the violation, require the Dischargers to submit a separate technical report regarding the violation ***within five working days*** of the request of the San Diego Water Board.

5. **Significant Maintenance Activity Work Plan.** The Discharger must submit a workplan prior to any significant maintenance activities that could alter the existing surface drainage patterns or change existing slope configurations. These activities include, but are not limited to, significant grading activities, and the installation of soil borings, detection groundwater monitoring wells, landfill gas borings and monitoring points, and other devices for site investigation purposes. Unless otherwise directed by the San Diego Water Board, the Discharger may initiate the activities proposed in the workplan after expiration of ***30 days*** of receipt of the report by the San Diego Water Board.

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

| Report Type | Report Frequency | Reporting Period | Report Due Date |
|---|---|---|---|
| First Sampling and Analysis Plan[A] | N/A | N/A | March 12, 2024 |
| Semi-Annual Groundwater Monitoring Report | Semi-Annual | October – March | April 30 |
| Semi-Annual Groundwater Monitoring Report | Semi-Annual | April – September | October 30 |
| Annual Compliance Report | Annual | April – March | April 30 |
| Annual Leachate Monitoring Report | Annual | October – September | October 30 |
| Leachate Retest Monitoring Report[B] | Annual | March | April 30 |
| COC Report | Every Five Years | June 1 – September 30, or October 1 – April 30 | April 30[C] |
| Revised JTD and Design Plans | Periodic | N/A | At least 120 days prior to the commencement of construction of a new stage |
| Construction Quality Assurance Report | Periodic | N/A | Upon completion of each new stage of construction |

[A] Subsequent Sampling and Analysis Plans must be submitted as an attachment to the Annual Compliance Report.
[B] As necessary, based on the results of the Annual Leachate Monitoring.
[C] The Discharger's next five-year COC Report is due April 30, 2027. COC list data must be collected in alternating seasons to account for seasonal variations. For example, the previous COC sampling event occurred in the wet season (October 1 – April 30); therefore, the next COC sampling event should occur in the dry season (June 1 – September 30).

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

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

2. **Use of Licensed Professionals.** Pursuant to CCR title 27, section 21710(d), any report submitted in compliance with CCR title 27, and this Order, which proposes a design or design change (or which notes occurrences) that might affect the Landfill's containment features or monitoring systems, must be approved by a civil engineer or a certified engineering geologist appropriately licensed by the State of California. The Discharger must provide documentation that indicates all plans and reports required under this MRP are prepared by or under the direction of appropriately qualified professionals. CCR title 27, sections 20324(b), 20415(e)(1) and (e)(2), and 21090(b)(1)(C); and the California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of licensed professionals. A statement of qualifications and license numbers of the responsible lead professionals must be included in all plans and reports submitted by the Discharger. The lead professional must sign and affix their license stamp to the report, plan or document.

3. **Electronic Data Submittals.** The State's Electronic Reporting Regulations[40] mandate the electronic submission of any report or data, required by a regulatory agency for any discharge of waste to land subject to CCR title 27. All information submitted to the San Diego Water Board in compliance with this MRP is also required to be submitted electronically via the internet into the GeoTracker database at http://geotracker.waterboards.ca.gov/. The

[40] CCR title 23, chapter 30, division 3, section 3890 et seq.

electronic data must be uploaded on or prior to the regulatory due dates set forth in MRP or addenda thereto. To comply with CCR title 23, section 3893(b), the Discharger must upload into the GeoTracker database, the following information:

a. **Laboratory Analytical Data.** Analytical data (including geochemical data) for all soil, vapor, and water samples in Electronic Deliverable File (EDF) format[41]. Water, soil, and vapor data including analytical results of samples collected from monitoring wells, boreholes, LFG probes, LFG extraction wells, soil vapor wells, piezometers, surface water, stockpiles, and drinking water wells, if applicable.

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

c. **Monitoring Well Elevation Data.** The surveyed elevation relative to a geodetic datum of any permanent monitoring well. Elevation measurements must be made at the top of groundwater well casings for all detection groundwater monitoring wells.

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

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

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

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

h. **Electronic Report.** A complete copy (as a searchable PDF document) of all Joint Technical Documents, technical reports, workplans, CQA

[41] See GeoTracker database: http://geotracker.waterboards.ca.gov/.

Reports, plans, and monitoring reports, including the signed transmittal letter, professional certifications, and all data presented in the reports.

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

    a. **Summary of Non-Compliance.** A summary of any areas of non-compliance with MRP No. R9-2023-0095 or Order No. 90-09, as amended, incurred during the reporting period. The summary may include verbal and written notices of violations from State and local regulatory agencies regarding monitoring and/or maintenance deficiencies or violations noted by the Discharger, such as the exceedance of Water Quality Protection Standards, failure to conduct monitoring as required by MRP No. R9-2023-0095 or Order No. 90-09, as amended.

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

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

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

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

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

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

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

## PART IV. CONTINGENCY REPORTING

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

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

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

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

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

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

2. The Discharger must submit an Amended Report of Waste Discharge (ROWD) proposing an Evaluation Monitoring Program that meets the requirements of CCR title 27, sections 20415(b)(2), 20420(k)(5), and 20425 et seq., ***within 90 days*** of determining there is measurably significant evidence of a release.

3. The Discharger must, ***within 180 days*** of discovering the release, submit to the San Diego Water Board a preliminary engineering feasibility study report that meets the requirements of CCR title 27, section 20420(k)(6).

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

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

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

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

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

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

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

3. Provide updates to all affected persons.

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

## PART V. NOTIFICATIONS

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

**A. ENFORCEMENT DISCRETION.** The San Diego Water Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of MRP No. R9-2023-0095.

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

**C. DELEGATION OF AUTHORITY**. The San Diego Water Board has delegated to the Executive Officer by resolution, all the powers and authority that may be delegated pursuant to Water Code section 13223. The San Diego Water Board intends for the Executive Officer to make modifications or revisions when appropriate, to MRP No. R9-2023-0095. The Board further directed the Executive Officer to exercise discretion in determining whether proposed modifications and revisions should be considered for approval by the Board.

Ordered by:

David W. Gibson

Digitally signed by David W. Gibson
Date: 2023.12.18 13:25:38 -08'00'



David W. Gibson
Executive Officer

**APPENDIX 1**
**TO MRP NO. R9-2023-0095**
**CONSTITUENTS OF CONCERNS (COCS)**

**General Chemistry Parameters:**
Chloride
Cyanide
Nitrate as Nitrogen
Sulfate
Sulfide
Total Dissolved Solids
Appendix II Metals

**Volatile Organic Compounds:**
1,2,3-Trichlorobenzene
1,2,4-Trichlorobezene
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
1, 1-Dichloroethane
1,2-Dichlorobenzene
1,2-Dichhloroethane
1,2-Dichloropropane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2-Butanone (MEK)
2-Hexanone
4-Methyl-2-Pentanone (MIBK)
Acetone
Benzene
Chlorobenzene
Chloroethane
Cis-1,2-Dichloroethene
Dichlorofluoromethane
Diethyl ether
Ethyl benzene
Ethyl tert-Butyl Ether (ETBE)
Isopropylbenzene
m+p-Xylenes
Methyl-tert-butyl-ether (MTBE)
Methylene Chloride
n-Butylbenzene
n-Propylbenzene
Naphthalene
o-Xylene
p-Isopropyltoluene
Styrene
Tetrachloroethene
Toluene
Trichloroethene
Xylenes (total)
Vinyl Chloride

**Semi-Volatile Organic Compounds**
3-Methylphenol
4-Methylphenol
Acenaphthene
Isophorone
Phenol