CALIFORNIA
Water Boards

Los Angeles Regional Water Quality Control Board

August 15, 2018

Ms. Denise Radde
410 Avalon Canyon Road
P.O. Box 707
Avalon, CA 90704

REVISION OF MONITORING AND REPORTING PROGRAM - PEBBLY BEACH LANDFILL, AVALON, CALIFORNIA (FILE NO. 72-030, ORDER NO. R4-2016-0140, CI-5770, GEOTRACKER GLOBAL ID. L10007454208)

Dear Ms. Radde:

CR&R Waste and Recycling Services (Operator) operates the City of Avalon (Discharger) owned Pebbly Beach Landfill (Landfill), which is regulated under waste discharge requirements (WDRs) contained in Order No. R4-2016-0140, adopted by the Los Angeles Regional Water Quality Control Board (Regional Board) on April 14, 2016. Incorporated within the WDRs is Monitoring and Reporting Program (MRP) No. CI-5770. Provision G.4 of the WDRs provides that, at any time, the Discharger may file a written request, including appropriate supporting documents, with the Regional Board Executive Officer, proposing modifications to the MRP and the Discharger shall implement any changes in the revised MRP approved by the Regional Board Executive Officer. Reference is made to a report dated May 31, 2018 from the Operator, on behalf of the Discharger, requesting revisions to the MRP, as follows:

1. **To reduce the sampling frequency of dewatered sludge from quarterly to annually.**

   MRP provision B.1.h requires that "Dewatered Sludge Sampling and Reporting - In addition to reporting the quantity of dewatered sewage sludge per each generator deposited each month, **quarterly samples** of incoming sludge shall be obtained and analyzed..."

   The Discharger proposes to revise the provision to "Dewatered Sludge Sampling and Reporting - In addition to reporting the quantity of dewatered sewage sludge per each generator deposited each month, **annual (once per year)** samples of incoming sewage sludge shall be obtained and analyzed..."

   Justification: The Landfill has accepted sludge from the adjacent City of Avalon Sewage Treatment Plant (STP) since 1978. Currently, the volume of dewatered sewage sludge accepted at the Landfill is less than 200 tons per year, or on average less than 20 tons per month. The sludge source is almost exclusively from the City of Avalon with a main industry of tourism and minimal heavy industry / commercial operations that might result in a more variable sludge waste stream. The Discharger has conducted chemical constituents testing of the sludge since 1997. Testing results have been consistent and are believed to reflect the consistency of the sludge waste stream. Regional Board staff concurs that the testing conducted to date reasonably characterizes the sludge wastes and that quarterly testing of the sludge is not necessary. The Discharger is hereby approved to implement annual (once per year) sludge testing pursuant to relevant requirements of the WDRs.

2. **To reduce the frequency of site surveys.**

   MRP provision B.2.e.iii requires that "A site map, 11 inches by 17 inches or larger, prepared by either aerial surveillance or a licensed surveyor, indicating the location of elements listed in Section 2.e.ii of this M&RP, and the flow direction of all landfill drainage. The map shall be updated at least **annually**."

   The Discharger proposes to revise the provision, as follows: "A site map, 11 inches by 17 inches or larger, prepared by either aerial surveillance or a licensed surveyor, indicating the location of elements listed in Section 2.e.ii of this M&RP, and the flow direction of all landfill drainage. The map shall be updated at least **every three years**."

   Justification: The Landfill is one of the smallest permitted municipal waste landfills in the State and currently accepts only approximately 5,000 tons of waste per year. The footprint of the Landfill is established by the limits of the exhausted rock quarry in which it is located. Because of the defined waste footprint and slow development rate, Regional Board staff concurs that a change in frequency from once per year to every three years is acceptable. The Discharger is hereby approved to conduct site surveys on a cycle of once every three years, starting in 2019, pursuant to relevant requirements of the WDRs.

3. **To reduce the frequency of groundwater monitoring from quarterly to semi-annually.**

   MRP provision C.2.f.i requires that "**Quarterly** monitoring shall be conducted at all downgradient groundwater monitoring wells as shown in the following schedule (March, June, September and December)."

   The Discharger proposes to revise the provision to "**Semiannual** monitoring shall be conducted at all downgradient groundwater monitoring wells as shown in the following schedule (June and December)."

   Justification: Quarterly groundwater monitoring at the Landfill has been conducted at sentry monitoring well MW-1 since 1997. In February 2010, operators from the City of Avalon STP disposed of rain water collected in their sludge drying beds in well MW-1 by mistake and caused serious contamination to the well. A corrective action plan was implemented to remediate the well by prolonged purging (conducted from May to December 2010). On March 24, 2011, Regional Board staff approved the results of the well remediation program and returned well MW-1 to routine detection mode groundwater monitoring. Data obtained following the well cleanup has been stable and shows no contamination to groundwater from the Landfill. Regional Board staff concurs that semiannual groundwater monitoring of the well is adequate to detect any release of pollutants from the Landfill to groundwater. The Discharger is hereby approved to implement semi-annual groundwater monitoring pursuant to relevant requirements of the WDRs. The schedule for semi-annual groundwater sampling events shall be June and December of each year.

Attached is a copy of revised MRP No. CI-5770. If you have any questions regarding this letter, please contact Dr. Enrique Casas at (213) 620-2299 or via email at Enrique.Casas@waterboards.ca.gov or contact Dr. Wen Yang at (213) 620-2253 or via email at Wen.Yang@waterboards.ca.gov.

Sincerely,

Deborah J. Smith
Executive Officer

Attachment: Revised Monitoring and Reporting Program No. CI-5770

cc: Ms. Dorcas Hanson-Lugo, County of Los Angeles, Department of Public Health
Mr. John McNamara, CR&R Waste and Recycling Services

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM (NO. CI-5770)

FOR
AVALON ENVIRONMENTAL SERVICES
PEBBLY BEACH LANDFILL

A. GENERAL

1. This self-monitoring and reporting program (MRP) implements the requirements of title 27 of the California Code of Regulations (27 CCR) and title 40 of the Code of Federal Regulations, part 258 for Landfill operations. This MRP includes monitoring, reporting and record keeping requirements for composting operations. California Water Code (CWC) section 13267(b) authorizes the regional boards to require technical or monitoring program reports. Compliance by Avalon Environmental Services (Discharger) with the terms of this MRP for the Pebbly Beach Landfill (Landfill) is required by California Regional Water Quality Control Board, Los Angeles Region (Regional Board) Order No. R4-2016-0140 (Order) and California Water Code (CWC) section 13267(b).

2. The principal purposes of a self-monitoring program by a waste discharger are:

   a. To document compliance with discharge requirements and prohibitions established by the Regional Board;

   b. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge; and

   c. To prepare water quality analyses.

3. The Discharger shall implement this MRP at the Landfill and composting operation as required in the Order, starting the first monitoring period immediately following adoption of the Order. Because the composting operations are conducted within the footprint of the Landfill, this program monitors both facilities concurrently.

4. The Discharger shall comply with the requirements of 27 CCR section 20415 for any water quality monitoring program developed to satisfy 27 CCR sections 20420, 20425, or 20430, as required in the Order and this MRP.

   a. Groundwater monitoring shall meet the requirements of 27 CCR section 20415(b) and 40 CFR section 258.51 (a, c, and d);

   b. Surface water monitoring shall meet the requirements of 27 CCR section 20415(c) and NPDES requirements, as required in this MRP and the State Board General NPDES Stormwater Permit for Industrial Activities (General Industrial Stormwater Permit, Order WQ 2015-0121-DWQ). In addition, whenever possible, the Discharger shall measure volumetric flow or, at a minimum, visually estimate the

flow rate for all surface water monitoring points with flowing water (i.e. any flowing seeps or springs that develop during the development or operation of the Landfill)

B. REQUIRED REPORTS AND CONTINGENCY RESPONSE

The Discharger shall submit the following reports to this Regional Board in accordance with the schedules specified.

1. Semiannual Monitoring Report

A written monitoring report shall be submitted **semiannually** each year in accoradance with Section C.2.f.*i* of the MRP. Any reporting or tabulation requirements less than **semiannually** in length (i.e., monthly) shall be submitted in corresponding **semiannual** reports. **Semiannual** reports shall include, but shall not be limited to, the following items and sequence:

a. Transmittal Letter: A letter transmitting the essential points shall accompany each report. The letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a time schedule for correcting said violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. Monitoring reports and the letter transmitting the monitoring reports shall be signed and certified in accordance with section I.11 of the Order.

b. Summary of Non-Compliance: The report shall contain a summary of non-compliance that discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. Significant aspects of any on-going corrective action measures conducted during the monitoring period shall also be summarized. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all exceedances of water quality protection standards.

c. Site Conditions: General discussion of site conditions (geology, climate, 100-year 24-hour storm, and watershed specifics, etc.) relative to water quality monitoring.

d. Narrative Description: A narrative discussion of the various monitoring activities and results for the site. Each requirement of Section C (Required Water Quality Monitoring and Inspection Program) of this MRP shall be specifically discussed.

e. Laboratory Results: Laboratory results and statements demonstrating compliance with Section C of this MRP. Results of additional water sampling and analyses performed at the Landfill, outside of the requirements of this MRP, shall be summarized and reported. If the results of such additional sampling and analyses have or will be reported under separate cover, a statement as such shall be included in the monitoring report.

f. A summary and certification of completion of all observations from quarterly Landfill and composting operation inspections, and in accordance with the NPDES Stormwater Permit monitoring and reporting requirements.

g. Waste Disposal Reporting: Waste disposal activities at the site, including:

i. A tabular list of the estimated average monthly quantities (in cubic yards and tons) deposited each month.

ii. An estimate of the remaining capacity (in cubic yards and tons) and the remaining life of the site in years and months.

iii. A certification that all wastes were deposited in compliance with the Regional Board's requirements and that no wastes were deposited outside of the boundaries of the waste management area.

iv. A description of the location and an estimate of the seepage rate or flow of all known seeps and springs at the site.

v. The estimated amount of water used at the waste management area for landscape irrigation, compaction, dust control, etc., during each month. (If a source other than potable water is used, the sources and amounts of water from each source shall also be reported.)

vi. The Discharger shall report all unacceptable wastes inadvertently received at this site and their disposition. The following details shall be included:

A. The source (if known), including the hauler, of the unacceptable wastes and date received and/or discovered.

B. Identification of waste (if known) and the amount of waste.

C. The name and address of the hauler who removed the waste from this site.

D. The ultimate point of disposal for the waste.

E. The Discharger's actions to prevent recurrence of the attempted depositing of unacceptable wastes by this source or individual.

F. If no unacceptable wastes were received (or discovered) during the month, the report shall so state.

h. Dewatered Sludge Sampling and Reporting - In addition to reporting the quantity of dewatered sludge per each generator deposited each month, **annual (once per year)** samples of incoming sludge shall be obtained and analyzed as follows:

i. A daily representative sample shall be weight-proportioned as a composite and mixed as completely as possible (preferably in the absence of oxygen) into a single sample. The total percent solids of the sample shall be reported.

ii. An extraction solution of the sludge shall be prepared using the Waste Extraction Test (WET) method as outlined in the California Department of Public Health's California Assessment Manual for Hazardous Wastes (CAM), and analyzed as following:

A. All testing shall be done within 48 hours after the extraction solution is prepared.

B. The extracts shall be analyzed for Total Threshold Limit Concentration (TTLC) for the following metals: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc. If the concentration of any constituent exceeds 10 times of its Soluble Threshold Limit Concentration (STLC), then the sample shall be analyzed for STLC of that constituent.

C. The dewatered sludge shall also be analyzed annually for the following parameters: polychlorinated biphenyls (PCBs), trichloroethylene (TCE), perchloroethylene (PCE), carbon tetrachloride, DDT, DDE, DDD, Endrin, Lindane, Methoxychlor, Toxaphene, 2,4-D and 2,4,5-TP (Silvex).

iii. For small generators that dispose of dewatered sludge at the Landfill at a frequency less than one disposal event per quarter, the sample shall be a composited sample that is representative of the incoming dewatered sludge load. The total percent solids of the sample shall be reported and analyzed pursuant to B.1.i.*ii*, above.

iv. Sludge analyses results shall be reported in the corresponding **semiannual** report, as separate sections along with the pertinent laboratory data.

i. Map(s): Map(s) or aerial photograph(s) showing waste disposal and monitoring locations, relative physical features, and groundwater contours to the greatest degree of accuracy possible.

2. **Annual Summary Report**

The Discharger shall submit an annual summary report to the Regional Board covering the previous monitoring year. The annual monitoring period starts January 1 and ends December 31. This report may be combined with a **semiannual** report and shall be submitted no later than February 15 of each year. The annual summary report shall include at least the following:

a. Discussion: Include a comprehensive discussion of the compliance record, any significant monitoring system and operational changes, a summary of corrective action results and milestones, and a review of construction projects, with water quality significance, completed or commenced in the past year or planned for the upcoming year.

b. Graphical Presentation of Analytical Data: For each Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous eight calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given monitoring point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values.

c. Analytical Data: All monitoring analytical data obtained during the previous year, presented in tabular form..

d. Map(s): Map(s) showing the areas where any significant events have taken place during the previous calendar year.

e. A drainage control system maintenance report that includes, but is not limited to, the following information:

i. For the previous twelve months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm;

ii. A tabular summary of both new and existing drainage control structures, including the types and completion dates of maintenance activities performed for each of these structures; and

iii. A site map, 11 inches by 17 inches or larger, prepared by either aerial surveillance or a licensed surveyor, indicating the location of the elements listed in Section 2.e.ii of this MRP, and the flow direction of all Landfill drainage. The map shall be updated at least **every three years**.

f. An annual survey of the Landfill and composting facility to confirm that all containment structures are prepared for the pending wet season. Dischargers shall conduct an annual survey prior to the anticipated wet season, but no later than August 31 and complete any necessary construction, maintenance, or repairs by October 31.

3. **Contingency Response**

a. Leachate Seep: The Discharger shall, within 24 hours of discovery, report to Regional Board staff by telephone or email any previously unreported seepage from the Landfill. A written report shall be filed with the Regional Board pursuant to electronic submittal of information (ESI) reporting requirements within seven days, and contain at least the following information:

i. Map - A map showing the location(s) of seepage.

ii. Flow rate - An estimate of the flow rate.

iii. Description - A description of the nature of the discharge (e.g., all pertinent observations and analyses).

iv. Location - Location of sample(s) collected for laboratory analysis, as appropriate.

v. Corrective measures - approved (or proposed for consideration) by the Regional Board Executive Officer.

b. Response to an Initial Indication of a Release: Should the initial statistical or non-statistical comparison indicate that a release is tentatively identified, the Discharger shall:

i. Within 24 hours, verbally notify the designated Regional Board staff contact as to the monitoring point(s) and constituent(s) or parameter(s) involved;

ii. Provide written notification pursuant to ESI reporting requirements within seven days of such determination; and

iii. Do either of the following:

A. Carry out a discrete re-test in accordance with Section C.2.h.*ii* of this MRP[1] If the re-test confirms the existence of a release or the Discharger fails to perform the re-test, the Discharger shall carry out the release discovery response requirements in Section B.3.d of this MRP In any case, the Discharger shall inform the Regional Board of the re-test outcome within 24 hours of results becoming available, following up with written results submitted pursuant to ESI reporting requirements within seven days, or

B. Make a determination, in accordance with 27 CCR section 20420(k)(7) that a source other than the waste management unit 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 the groundwater, surface water, or the unsaturated zone.

c. Physical Evidence of a Release: If either the Discharger or the Regional Board Executive Officer determines that there is significant physical evidence of a release (27 CCR section 20385(a)(3)), the Discharger shall conclude that a release has been discovered and shall:

i. Within seven days notify the Regional Board of this fact pursuant to ESI reporting requirements (or acknowledge the Regional Board's determination).

ii. Carry out the requirements of Section B.3.d of this MRP for all potentially affected monitored media.

iii. Carry out any additional investigations stipulated in writing by the Regional Board Executive Officer for the purpose of identifying the cause of the indication.

d. Release Discovery Response: If either the Discharger or the Regional Board Executive Officer concludes that a release has been discovered, the following steps shall be carried out:

[1] In case the discrete re-test is triggered by detections of common laboratory contaminants (i.e., acetone, toluene, methylene chloride, and carbon disulfide) the Discharger may postpone the discrete re-test until after the next **semiannual** monitoring event. Re-testing for constituents that are common laboratory contaminants will not be required unless the same pollutants are also detected in the following **semiannual** monitoring event.

i. If this conclusion is not based upon monitoring for all COCs, the Discharger shall sample for all COCs at all monitoring points in the affected medium (i.e. groundwater). Within seven days of receiving the laboratory analytical results, the Discharger shall notify the Regional Board Executive Officer, pursuant to ESI reporting requirements, of the concentration of all COCs at each Monitoring Point. This notification shall include a synopsis showing, for each monitoring point, those constituents that exhibit an unusually high concentration.

ii. The Discharger shall, within 90 days of discovering the release, submit an amended report of waste discharge proposing an evaluation monitoring program (EMP) that:

A. Meets the requirements of 27 CCR sections 20420 and 20425.

B. Satisfies the requirements of 40 CFR 258.55(g)(1)(ii) by installing at least one monitoring well at the facility boundary directly downgradient of the center of the release.

iii. The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study (27 CCR section 20420(k)(6)) for a corrective action program necessary to meet the requirements of 27 CCR section 20430.

iv. The Discharger shall immediately begin delineating the nature and extent of the release by installing and monitoring assessment wells as necessary to assure that it can meet the requirements of 27 CCR section 20425 to submit a delineation report within 90 days of when the Regional Board Executive Officer directs the Discharger to begin the EMP.

e. Release Beyond Facility Boundary: If the Discharger or Regional Board Executive Officer concludes that a release from the Landfill has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons) as follows:

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

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

iii. Each time the Discharger sends a notification to Affected Persons (under Sections 3.e.i. or 3.e.ii of this MRP), it shall, within seven days of sending such notification, provide the Regional Board with both a copy pursuant to ESI reporting requirements of the notification and a current mailing list of Affected Persons.

4. **Submitting of Reports**

The Discharger shall submit all scheduled reports required in the Order and this MRP electronically, in accordance with 23 CCR section 3890 et. seq., or as directed by the Regional Board Executive Officer. Until directed otherwise by the Regional Board Executive Officer, all reports shall be submitted to the State Board GeoTracker data system in searchable Portable Document Format (PDF) files (Geotracker Global ID. L10007454208). In addition, all groundwater analytical data and monitoring well locations shall be submitted to GeoTracker in Electronic Deliverable Format (EDF). Documents that cannot be conveniently reviewed in electronic format, such as large maps or drawings, shall be submitted as hard copies to the Regional Board office as instructed by Regional Board staff. All hard copy reports required in this MRP shall be addressed to:

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013
ATTN: Land Disposal Unit

C. REQUIRED WATER QUALITY MONITORING AND INSPECTION PROGRAM

The Discharger shall conduct the following water quality monitoring and inspection program at the Landfill. Unless otherwise indicated, all monitoring data and inspection results shall be reported to the Regional Board as outlined in Section B (Required Reports and Contingency Response) of this MRP. In addition, Regional Board staff may conduct appropriate verification tests to confirm the accuracy of the Discharger's self-monitoring.

1. Environmental Monitoring Networks

The Discharger shall conduct analytical monitoring of groundwater, and surface water at the Landfill. The current environmental monitoring points for the Landfill are summarized in Table T-1 and shown on Figure T-1.

2. Water Quality Monitoring

a. Initial Full Appendix II Scan[2] – Within 30 days of the adoption of this Order, all downgradient groundwater monitoring points where a full Appendix II scan has not been performed within the last five years must be sampled and analyzed for the presence or absence of all Appendix II constituents that are not yet on the Landfill's monitoring parameter (MPar) list. A full Appendix II scan shall also be performed at any new groundwater monitoring well within thirty days of its installation. For any Appendix II constituent detected in the scan that is not yet on the Landfill's MPar list, the Discharger shall resample for that constituent, within ninety days, at all monitoring points where the constituent(s) was detected. Any Appendix II constituent that is detected and confirmed at one or more groundwater

[2] An Appendix II Scan refers to a laboratory test that includes the analyses of all constituents listed in 40 CFR Par 258 Appendix II.

monitoring points becomes a new constituent of concern (COC) for the Landfill and shall be added to the Landfill's MPar list, pursuant to 40 CFR 258.55(b-d).

b. COC List — As of the date of this MRP, the COC list for the Landfill consists of all those constituents listed in Table T-2. At any subsequent time, the COC list shall include: all Appendix II constituents detected and affirmed in the initial scan under Section C.2.a of this MRP, and any constituent added by the Regional Board Executive Officer. The Discharger shall notify Regional Board staff of any such new addition to the COC list immediately, via phone, fax, or e-mail, shall note it in the Landfill's operating record within fourteen days of the verification, and shall report the addition of constituent(s) to the COC list in the next scheduled monitoring report.

c. MPars: Current groundwater MPars at the Landfill are listed in Table T-2, including:

i. Indicator Parameters: These constituents are considered capable of providing reliable indication of a release from the Landfill. The Discharger shall apply the statistical analyses described in Section C.2.g of this MRP or non-statistical analysis in Section C.2.h of this MRP indicator parameter constituents to analyze all groundwater monitoring data obtained under this program for all downgradient groundwater monitoring wells.

ii. Supplemental Parameters: These are inorganic constituents that provide important information regarding groundwater geochemistry but may not show significant variation in groundwater in the event of a Landfill release. Monitoring data for supplemental parameters will generally be used to differentiate between any distinct groundwater bodies and will not be subjected to routine statistical analysis.

iii. Other COCs: These include potential trace metals or other pollutants.

d. Water Quality Protection Standard (WQPS) - In accordance with 27 CCR section 20390, the WQPS for the Landfill is established as natural background groundwater quality at the site, which is either the statistically predicted value (if the constituent exists naturally) or the laboratory detection limit (if the constituent does not naturally exist in groundwater).

e. Development and Updating of Concentration Limits – Current concentration limits (statistically predicted values) for inorganic indicator parameters at downgradient groundwater monitoring wells at the Landfill are listed in Table T-3. The Discharger shall continue to develop and update concentration limits following the procedures provided in Section C.2.g.*i* of this MRP. The Discharger shall review concentration limits biannually in annual reports submitted to the Regional Board. When appropriate, new concentration limits shall be proposed.

f. Groundwater Quality Monitoring – The Discharger shall conduct the following groundwater monitoring activities at the Landfill:

i. **Semiannual** monitoring shall be conducted at all downgradient groundwater monitoring wells as shown in the following schedule:

Reporting Period	Sampling Period	Report Due
April – June	June	August 15
October – December	December	February 15

Water samples from these monitoring points shall be analyzed for all indicator parameters and supplemental parameters on a **semiannual** basis, and all other COCs on an annual basis (in December);

ii. Five-Yearly COC Scan — Every five years, starting in 2016, the Discharger shall analyze a sample from all downgradient groundwater monitoring wells for the detectable presence (including trace determinations) of all COCs that are not yet on the MPar list. This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d).

A. During each such COC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each monitoring well (sufficient to obtain a datum for each COC that is subject to the scan). Upon detecting (including trace value) a COC that is not yet on the MPar list, the Discharger shall, within thirty days, take a single resample from the indicating affected well(s) and reanalyze it only for the newly- detected constituent(s).

B. Any COC detected in samples collected from a groundwater monitoring well, and verified by a retest, automatically becomes part of the MPar list for the facility. This constitutes the means by which the Discharger shall meet the requirements of 40 CFR 258.55(d)(2).

g. Statistical Data Analysis Methodology

i. Intra-well comparison methods shall be used for all compliance wells for all constituents that are detectable at concentrations above their respective method detection limit (MDL) in ten percent or more of the background data to date. Initially, for each given MPar at a given downgradient monitoring well (well/MPar pair), the proposed background data set shall consist of all validated data from that compliance well and parameter, from the preceding five-year period. Every two years, following the adoption of this MRP, as part of the annual monitoring summary report, the Discharger shall add the newer data to the background data set for each well/MPar pair after validating (via a method approved by the Regional Board Executive Officer) that the new data does not indicate an increase over the existing background data. At that time, the Discharger shall also retire the well/MPar's oldest two years of background data, thereby producing a data set covering the then-previous five years. The Discharger shall validate the proposed intra-well background data set as follows for each MPar at each well (initially) or, subsequently, at a new well or for a new MPar at an existing well. The Discharger shall report the validated or updated background data set, for each affected well/MPar pair, in the next scheduled monitoring report. The Discharger may use an alternative statistical method or approach for development of concentration limits, if approved by Regional Board staff.

ii. Per 27 CCR section 20415(e)(9)(C), if a control chart approach is used to evaluate water quality monitoring data, the specific type of control chart and its associated statistical parameter values (e.g., the upper control limit) shall be included in the supporting documentation as required by 27 CCR section 20415(e)(7). The Discharger shall use the procedure only if this supporting documentation shows the procedure to be protective of human health and the environment. Any control charting procedure must have a false positive rate of no less than 1 percent for each monitoring point charted. For example, upper control limits on X bar or R Charts used only once every six months (where no composite retest is used) must be set at no more than 2.327 standard deviations of the statistic plotted for a one-sided statistical comparison, or at no more than 2.576 standard deviations of the statistic plotted for a two-sided statistical comparison.

iii. In the event that an approved data analysis method provides a preliminary indication that a given MPar has a measurably significant increase at a given well, the Discharger shall conduct a verification procedure (retest) in accordance with 27 CCR section 20415(e)(8)(E). To maintain sample independence, the retest sampling shall be conducted within 90 to 100 days of the initial sampling event and can be coordinated with the corresponding **semiannual** sampling event. The verification procedure shall be performed only for the constituent(s) or parameter(s) that has shown "measurably significant" (as defined by 27 CCR section 20164) evidence of a release, and shall be performed only for those monitoring points at which a release is indicated.

iv. For any COC or MPar that is detectable at concentrations above its respective MDL in 10% or less of the background data to date, the constituent's concentration limit shall be its MDL. A measurable exceedance of this concentration limit shall be determined by application of the non-statistical analysis method described in Section C.2.h of this MRP.

v. Water Quality Monitoring Approach — Except for COC scans, the monitoring approach used for each MPar at all compliance wells (well/MPar pair) shall be controlled by whether that MPar has exhibited a measurably significant increase at that well. Therefore, the Discharger shall monitor each well/MPar pair in one of two modes, as follows, either:

A. Detection Mode - For an MPar that has not produced a measurably significant increase at that well, the purpose of monitoring, for that well/MPar pair, is to watch for the MPar's arrival at that well at a concentration strong enough to trigger a measurably significant indication using an appropriate statistical or nonstatistical data analysis method; or

B. Tracking Mode - For an MPar that has produced a measurably significant increase at a given well, the purpose of the monitoring, for that well/MPar pair, is to verify the suitability and effectiveness of the existing or proposed corrective measures by tracking changes in the MPar's concentration at that location via an evolving concentration-versus-time plot.

vi. Detection Mode Data Analyses — The following applies to all detection mode data analyses (i.e., this section does not apply to the scans under Sections C.2.a or C.2.g.*ii* of this MRP):

A. MPars Readily Detectable in Background — At any given monitoring point, the Discharger shall apply an appropriate statistical analysis for each detection mode MPar that exceeds its respective MDL in at least 10% of the applicable background data set;

B. MPars Not Readily Detectable in Background — For any monitoring point at which one or more MPars, in detection mode, exceed their respective MDL in less than 10% of the applicable background data set, the Discharger shall analyze the data for these MPars via the California Nonstatistical Data Analysis Method (CNSDAM) test described in Section C.2.h of this MRP.

h. California Non-statistical Data Analysis Method (CNSDAM)

i. Non-Statistical Method for Detection Mode for MPars Seldom Found in Background - For any given compliance (downgradient) well, regardless of the monitoring program (DMP, EMP, AMP, or CAP), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" in Section C.2.h.*i*.A of this MRP (or, for each retest sample, the modified scope list of Section C.2.h.*ii*.B).

A. Scope List – Within 30 days of the effective date of this Order, the Discharger shall create a current "scope list" showing each detection mode MPar, at that well, that exceeds its MDL in less than 10% of its background data.

B. Two Triggers - From the scope list made under Section C.2.h.*i*.A of this MRP, for an initial test (or, for a retest, the modified scope list under Section C.2.h*ii*.B of this MRP), the Discharger shall identify each MPar in the current sample from that well that exceeds either its respective MDL or PQL. The Discharger shall conclude that these exceeding MPars provide a preliminary indication (or, for a retest, provide a measurably significant indication) of a change in the nature or extent of the release, at that well, if either:

(c) Two or more of the MPars on a monitoring well's scope list exceed their respective MDL; or

(d) At least one of the MPars on a monitoring well's scope list equals or exceeds its respective PQL.

ii. Discrete Retest [27 CCR section 20415(e)(8)(E)]:

A. In the event that the Discharger concludes (pursuant to Section C.2.h.*i*.B of this MRP) that there is a preliminary indication, then the Discharger shall immediately notify Regional Board staff by phone, fax, or e-mail and, within 30 days of such indication, shall collect two new (re-test) samples from the indicating compliance well. To maintain sample independence, the

retest sampling shall be conducted within 90 to 100 days of the initial sampling event.

B. For any given compliance well, the Discharger shall analyze the retest samples only for those constituents indicated in that well's original test, under Section C.2.h.*i*.B of this MRP, and these indicated constituents shall comprise the well's "modified scope list." As soon as the retest data are available, the Discharger shall apply the same test (under Section C.2.h.*i*.B of this MRP, but using this modified scope list) to separately analyze each of the two suites of retest data at that compliance well.

C. If either (or both) of the retest samples trips either (or both) of the triggers under Section C.2.h.*i*.B of this MRP, then the Discharger shall conclude that there is a measurably significant increase at that well for the constituent(s) indicated in the validating retest sample(s). Furthermore, thereafter, the Discharger shall monitor the indicated constituent(s) in tracking mode at that well, remove the constituent(s) from the scope list created for that well, notify the Regional Board in writing, and highlight this conclusion and these changes in the next scheduled monitoring report and in the Landfill's operating record.

i. Water Used on Site for Irrigation and Dust Control: The Discharger shall record the amount of water used on site for the purposes of irrigation and dust control from each source on a monthly basis. Each water source, other than potable water, shall be sampled **semiannually** and analyzed for pH, total organic compounds, oil or grease, and VOCs.

3. Site Inspections

The Discharger shall inspect the Landfill and composting operation in accordance with the following schedule, and report the results of such inspections in the corresponding **semiannual** report.

a. The Discharger shall perform quarterly Landfill inspections. Standard Observations for the Landfill during a site inspection shall include at least the following:

i. Evidence of any surface water leaving or entering the waste management unit, estimated size of affected area, and estimated flow rate (show affected area on map).

ii. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.

iii. Evidence of erosion and/or of exposed refuse.

iv. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

v. Evidence of ponded water at any point on the waste management facility (show affected area on map).

vi. Compliance with the Storm Water Pollution Prevention Plan, insuring that the terms of the General NPDES Stormwater Permit are properly implemented.

vii. Integrity of all drainage systems.

viii. Inspection of the working surfaces, berms, ditches, perimeter, erosion control best management practices related to composting operations.

b. The Discharger shall perform quarterly composting operation inspections of the working surfaces, berms, ditches, facility perimeter, erosion control best management practices (BMPs), and any other operational surfaces.

i. Date and time of inspections, along with the name of the inspector;

ii. Evidence of areas of deficiency such as cracking or subsidence in the working surfaces;

iii. Evidence of ponding over the working surfaces and within ditches (show affected area on a map);

iv. Effectiveness of erosion control BMPs;

v. Maintenance activities associated with, but not limited to, the working surfaces, berms, ditches, and erosion control BMPs;

vi. Evidence of any water or wastewater leaving or entering the facility, estimated size of affected area, and estimated flow rate (show affected area on a map);

vii. Integrity of drainage systems during the wet season; and

viii. Photographs of observed and corrected deficiencies.

c. Major Storm Events – During the wet weather season, the Discharger shall inspect all Landfill and compost operation precipitation, diversion, and drainage facilities for damage within seven days following major storm events. Necessary repairs shall be completed within 30 days of the inspection.

D. SAMPLING AND ANALYTICAL PROCEDURES

1. Sampling and Analytical Methods

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with a sampling and analysis plan acceptable to the Regional Board Executive Officer. A State of California approved laboratory shall perform water analysis. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Regional Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from all monitoring points meets the following restrictions:

a. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., trace) in historical data for that medium, the SW-846 analytical method having the lowest MDL shall be selected.

b. Trace results (results falling between the MDL and the practical quantitation limit (PQL)) for organic compounds shall be reported as such.

c. MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included.

d. For each MPar addressed during a given reporting period, the Discharger shall include in the monitoring report a listing of the prevailing MDL and PQL for that MPar, together with an indication as to whether the MDL, PQL, or both have changed since the prior reporting period. The Discharger shall require the analytical laboratory to report censored data (trace level and non-detect determinations). In the event that an MPar's MDL and/or PQL change, the Discharger shall highlight that change in the report's summary and the report shall include an explanation for the change that is written and signed by the owner/director of the analytical laboratory.

e. Quality assurance and quality control (QA/QC) data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include:

   i. The method, equipment, and analytical detection limits.

   ii. The recovery rates, including an explanation for any recovery rate that is outside the USEPA-specified recovery rate.

   iii. The results of equipment and method blanks.

   iv. The results of spiked and surrogate samples.

   v. The frequency of quality control analysis.

   vi. The name and qualifications of the person(s) performing the analyses.

f. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.

g. Non-targeted chromatographic peaks shall be identified, quantified, and reported to a reasonable extent. When significant unknown peaks are encountered, second

column or second method confirmation procedures shall be performed in an attempt to identify and more accurately quantify the unknown analyte(s).

2. **Records to be Maintained**

Analytical records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. The period of retention shall be extended during the course of any unresolved litigation or when directed by the Regional Board Executive Officer. These records and reports are public documents and shall be made available for inspection during normal business hours at the Regional Board office. Such records shall show the following for each sample:

a. Identity of sample and the actual monitoring point designation from which it was taken, along with the identity of the individual who obtained the sample.

b. Date and time of sampling.

c. Date and time that analyses were started and completed, and the name of personnel performing each analysis.

d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

e. Results of analyses, and MDL and PQL for each analysis.

Ordered by: Samuel Unger
Samuel Unger, P.E.
Executive Officer

DATE: April 14, 2016

Ordered by:
Deborah J. Smith
Executive Officer

DATE: August 15, 2018

Table T-1:
Water Quality Monitoring Locations

Media Monitored	Monitoring Points	Location
Groundwater	MW-1	Downgradient
Surface Water	SP-1, SP-2	Outfalls

Table T-2:
Constituents of Concern

Monitoring Parameters (MPars)			
Indicator Parameters*		Supplemental Parameters	Other COCs
Inorganic Parameters: Alkalinity, total Ammonia, nitrogen Chloride Nitrate-N Sulfate Total dissolved solids Total organic carbon **Appendix I VOCs:** 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,4-Dichlorobenzene 2-Butanone 2-Hexanone 4-Methyl-2-Pentanone Acetone Acrylonitrile Benzene	Bromochloromethane Bromodichloromethane Bromoform Bromomethane c-1,2-Dichloroethene c-1,3-Dichloropropene Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane Dibromomethane Dichlorodifluoromethane Ethylbenzene Iodomethane Methylene chloride o-Xylene p/m-Xylene Styrene t-1,2-Dichloroethene t-1,3-Dichloropropene t-1,4-Dichloro-2-Butene Tetrachloroethene Toluene Trichloroethene Trichlorofluoromethane Vinyl Acetate Vinyl Chloride **Other Organics:** 1,4-Dioxane	Sodium Total Hardness Boron, total Fluoride Iron, total pH, field Specific conductance, field Temperature, field Turbidity, field Biochemical oxygen demand Polychlorinated biphenyls Acid/base/neutral extractables Phosphorus as P, total Total Coliform Organisms	**Metals:** Antimony Arsenic Barium Beryllium Cadmium Chromium, total Cobalt Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc **Any other pollutants added by the Regional Board Executive Officer**

Table T-3:
Threshold Values for Well/Mpar Pairs

Constituents	**MW-1**
Alkalinity, total	649
Ammonia as N	654
TOC	50.7
Chloride	365
Nitrate-N	0.13
Sulfate	229
TDS	1421
VOCs / SVOCs	Laboratory practical quantitation limits

Intrawell statistical analyses using the latest 5 years of analytical data shall be used to calculate a value to populate the table and/or replace the concentration limit indicated.

Numerical values in the table are concentration limits in milligrams per liter.

Figure T-1:
Monitoring Well Location Map