

Los Angeles Regional Water Quality Control Board

December 14, 2016

Sharon Gates
City of Long Beach
Department of Parks, Recreation and Marine
2760 Studebaker Road
Long Beach, CA 90815-1697

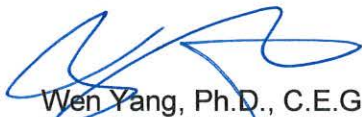
WASTE DISCHARGE REQUIREMENTS - PARAMOUNT LANDFILL, LONG BEACH, CALIFORNIA (FILE NO. 93-079, ORDER NO. R4-2016-0361, CI-8372A, GEOTRACKER GLOBAL ID. L10008377272)

Dear Ms. Gates,

Reference is made to our letter to you, dated September 12, 2016, transmitting tentative Waste Discharge Requirements (WDRs) for the Paramount Landfill. Pursuant to Division 7 of the California Water Code, this Regional Water Quality Control Board (Regional Board) at a public hearing held on December 8, 2016, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. R4-2016-0361 (copy attached) that includes revised WDRs for the subject site. The revised WDRs package will be posted on the Regional Board's website at http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/. Hard copies of the Order may be obtained by contacting the Regional Board staff listed below.

Should you have any questions, please contact Dr. Enrique Casas, Project Manager, at (213) 620-2299 or me at (213) 620-2253.

Sincerely,



Wen Yang, Ph.D., C.E.G.
Senior Engineering Geologist
Land Disposal Unit

cc: Ms. Nadine Langley, State Water Resources Control Board
Ms. Shannon Hill, CalRecycle
Mr. Pete Oda, Los Angeles County Environmental Health Division, Solid Waste
Mr. Charlie Tupac, South Coast Air Quality Management District
Mr. Ed Pert, Department of Fish and Wildlife
Mr. Mark Stuart, Department of Water Resources, Southern District
Mr. George Ker, City of Long Beach, Department of Public Works - Engineering Bureau
Mr. Michael Cullinane, SWT Civil and Environmental Engineering, Inc.

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2016-0361

**WASTE DISCHARGE REQUIREMENTS
FOR POST-CLOSURE MAINTENANCE AND MONITORING**

**PARAMOUNT (55TH WAY) LANDFILL
(FILE NO. 93-079)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

BACKGROUND

1. The City of Long Beach (Discharger) owned and operated the Paramount Landfill (Landfill) at 2910 East 55th Way in the City of Long Beach, California (Figure 1). The 17.4 acre Landfill is also known as the 55th Way Landfill or Long Beach Dump No. 26.
2. The Discharger operated the Landfill from 1945 to 1948. During its operations, an estimated 660,000 cubic yards of nonhazardous solid wastes were disposed of at the Landfill. The Landfill was constructed before the advent of modern landfill containment features such as composite liners, leachate collection, or subsurface barriers. Following closure, the Landfill was covered with a soil layer. However, no records of the detailed characterizations of the final cover are available.
3. After closure, the Landfill was divided into five parcels. Four of the parcels were sold to private parties, and one parcel was converted into an extension of East 55th Way (Figure 2).
4. The four sold Landfill parcels consist of the former Kraus Trucking Company parcel (northeast portion), the former Cal Coast Packing and Crating Co. parcel (northwestern portion), the Friendly Village Mobile Park parcel (central portion), the 5400 Paramount Boulevard parcel (southern portion).
5. The Landfill is bounded on the east and northeast by single-family dwellings, on the north by the Paramount Petroleum Lakewood Tank Farm and single-family dwellings, on the west by multi-family dwellings, and on the south by commercial development and single-family dwellings.
6. Nonhazardous solid waste landfills have been regulated by the State Water Resources Control Board (State Board) and the Regional Boards since the 1960's through the issuance of Waste Discharge Requirements (WDRs). Applicable regulations governing landfills in California are contained in Division 2 (commencing with section 20005) of title 27 of the California Code of Regulations (27 CCR).
7. Pursuant to 27 CCR section 20005(c), landfills that were closed, abandoned, or inactive (CAI) on the effective date of the regulations (November 27, 1984), are not specifically required to

- be closed in accordance with division 2, subdivision 1, chapter 3, subchapter 5 (Closure and Post-Closure Maintenance) requirements of 27 CCR.
8. Pursuant to 27 CCR section 20080(g), persons responsible for discharges at CAI landfills may be required to develop and implement a monitoring program. If water quality impairment is found, such persons may be required to develop and implement a corrective action program in accordance with provisions of chapter 3, subchapter 3, article 1 (Water Quality Monitoring and Response Programs for Solid Waste Management Units) of 27 CCR.
 9. Pursuant to 27 CCR section 20950(a)(l), the Regional Board may require modification of an existing landfill cover even if the landfill "was completely closed in accordance with an approved closure plan by November 27, 1984", if monitoring data indicate impairment of beneficial uses of groundwater.
 10. In 2001, the Discharger purchased the northeast (former Kraus Trucking) parcel for redevelopment and conversion to a local park.
 11. On October 31, 2002, the former Kraus Trucking parcel was enrolled under Regional Board Order R4-2002-022 (General Order) which includes general WDRs for post-closure maintenance of inactive non-hazardous waste landfills within the Los Angeles Region.
 12. In 2003, a Solid Waste Assessment Test (SWAT) analysis was completed for the Landfill following the initial year of groundwater monitoring after enrollment in Regional Board Order No. R4-2002-022. SWAT analysis results indicated no impact from the Landfill to local groundwater. The monitoring results confirmed a release from the tank farm to the north of the Landfill, which is actively regulated for cleanup by the Site Cleanup Program of the Regional Board.
 13. Specification A.3 of Regional Board Order No. R4-2002-022 allows for a discharger to apply for and obtain individual WDRs with more specific requirements. Following the SWAT analysis, the Discharger applied for site-specific WDRs to further pursue development of the site as an active recreation park. The Regional Board adopted Order No. R4-2004-0157 on October 7, 2004, that includes site specific requirements for the former Kraus Trucking parcel.
 14. In August 2006, the Discharger completed the redevelopment of the former Kraus Trucking parcel into the Ernie "Pops" Davenport Park.
 15. In 2014, the Discharger purchased the northwest (former Cal Coast Packing and Crating Co.) parcel with the intent of expanding the Ernie "Pops" Davenport Park to the Paramount Boulevard property limit. Hereafter, these two Landfill parcels, currently owned by the Discharger, are collectively referred to as the Park.
 16. The proposed Park expansion includes an improved final cover systems consisting of, from the bottom up, a foundation layer of compacted onsite materials, a landfill gas collection system consisting of a geo-composite blanket and horizontal trenches, a linear low-density polyethylene (LLDPE) geomembrane barrier layer, a geo-composite lateral drainage layer, and a minimum two-foot thick layer of vegetative soil layer. Limited passive open space areas will include drought tolerant vegetation and other non-invasive plantings to protect the landfill cover. The proposed design for the Park expansion was approved by Regional Board staff on October 17, 2014.

17. In April 2016, the Discharger issued a Notice of Exemption pursuant to the California Environmental Quality Act (CEQA) for the demolition and removal of accessory structures and facilities in preparation for the Park expansion project.
18. In September 2016, the Discharger started construction of final cover improvements for the proposed Park Expansion. Construction of the Park expansion will not be finalized until the Discharger finalizes funding for the project.
19. The WDRs are revised to include the northwest parcel and to update requirements for post-closure maintenance at the expanded Park.

ENVIRONMENTAL SETTING

20. The Landfill is located in the Central Basin of the Los Angeles Basin. The main physiographic features of the Landfill area are the Downey Plain (on which the Landfill is located), the Bouton Plain and Signal Hill to the south, the Los Angeles River to the west (approximately 2.5 miles), and the San Gabriel River to the east (approximately three miles). The Downey Plain is a depositional feature formed by coalesced alluvial fans of the Los Angeles, Rio Hondo, and San Gabriel River systems.
21. Regional subsurface sediments in the area of the Landfill consist of interbedded alluvial deposits from the Los Angeles and San Gabriel Rivers. These sediments consist of unconsolidated sand and gravel that are poorly sorted and stratified. Sediments underlying the Landfill area consist primarily of interbedded lenses of clayey silts, silty clays, and sandy silts.
22. Aquifers of interest in the north Long Beach area include, in vertically descending order, the semi-perched Gaspar (where present), Exposition, Gage (also known as the 200-foot sand), Hollydale, Lynwood (also known as the 400-foot gravel), and the Silverado aquifers. Beds of fine-grained sediment (aquicludes) generally separate each aquifer but are not present at all locations.
23. In the area of the Landfill, Recent-aged alluvium consists of sands and gravels up to 60-feet thick overlying the Bellflower aquiclude, which restricts vertical percolation into the Gaspar aquifer. The Bellflower aquiclude is found throughout the Central Pressure Basin and is composed mainly of clay and silt. However, there are numerous areas where its effectiveness as an aquiclude is limited.
24. There are no known active faults within 200 feet of the Landfill. Active faults are defined as Holocene Epoch faults that have exhibited surface movement in the last 11,000 years. The Newport-Inglewood Fault Zone dominates the geologic structure of the Long Beach area.
25. The Landfill is located within the South Coast Air Basin, which is comprised of a coastal plain with broad valleys, and low hills whose climate is dominated by the semi-permanent, high-pressure climatic conditions of the eastern Pacific zone. The area is characterized by warm, dry summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes and moderate humidity.
26. According to the National Flood Insurance Program, administered by the Federal Emergency Management Agency, the Landfill is outside of a 500-year flood hazard area.

LANDFILL ENVIRONMENTAL PROTECTION AND MONITORING SYSTEMS

27. The Landfill is unlined and does not have a leachate collection and removal system (LCRS).
28. The Landfill groundwater monitoring program incorporates semiannual monitoring of two upgradient wells and three wells downgradient of the Landfill (Figure 3). Groundwater monitoring at the Landfill has been conducted since 2002.
29. Landfill gas migration monitoring probes are located along the boundary of the Park (Figure 4). These probes are monitored on a quarterly basis as described in the Post-Closure Maintenance and Monitoring Plan (PCMMP) section of the Post-Closure Land Use Plan (PCLUP) approved on October 21, 2003, by the Regional Board Executive Officer.
30. The Park expansion design includes a landfill gas collection and removal system (Figure 5).

REGULATORY REQUIREMENTS

31. On June 13, 1994 the Regional Board adopted a revised Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) which was amended on January 27, 1997 by Regional Board Resolution No. 97-02. The requirements contained in this Order implement the applicable provisions of the Basin Plan.
32. The Basin Plan identifies the location of the Landfill as being within in the Central Hydrologic Subarea of the Coastal Plain Hydrologic Area of the Los Angeles - San Gabriel Hydrologic Unit. Existing beneficial uses of Los Angeles River surface water are groundwater recharge, water contact recreation, non-contact water recreation, and warm freshwater habitat. Potential beneficial uses include municipal and domestic supply, industrial service supply, and wildlife habitat.
33. The Basin Plan identifies existing beneficial uses for groundwater in the Central Basin of the Los Angeles Coastal Plain as municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply.
34. The California Water Code (CWC) section 13263(e) provides that all WDRs shall be reviewed periodically and, upon such review, may be revised by the Regional Board to address current site conditions and to comply with updated state or federal laws, regulations, policies, or guidelines. The Paramount Landfill WDRs are being revised to update requirements for post-closure maintenance at the expanded Park.
35. While the State Board and Regional Boards are the state agencies designated to protect water quality resulting from solid waste disposal activities, the California Department of Resources Recycling and Recovery (CalRecycle) regulates all other aspects of solid waste disposal in the State. To remove regulatory overlap, conflict, and duplication between CalRecycle and the State Board/Regional Boards, the California Legislature, under the Solid Waste Disposal Regulatory Reform Act of 1993, streamlined the state's solid waste disposal regulatory process by developing one consolidated set of solid waste disposal facility regulations. The revised regulations, promulgated under 27 CCR clarify the roles and responsibilities of CalRecycle and the State Board/Regional Boards in regulating MSW disposal sites.

36. The County of Los Angeles Department of Public Health, Environmental Health Programs, Solid Waste Management Program is the local enforcement agency for CalRecycle in Los Angeles County where the Landfill is located.
37. The 27 CCR regulations combine prior disposal site/landfill regulations of CalRecycle and the State Board/Regional Boards that were maintained in the California Code of Regulations, title 14 (14 CCR) and title 23 (23 CCR). The requirements in this Order conform with the relevant regulations of 27 CCR, and the Porter-Cologne Water Quality Control Act (commencing with CWC section 13000).
38. CWC section 13267(b) authorizes the regional boards to require a person who discharged waste or is suspected of having discharged waste to furnish technical and monitoring reports. The technical and monitoring reports required by this Order and the attached Monitoring and Reporting Program No. CI-8372A (MRP) are necessary to assure compliance with these waste discharge requirements.
39. The State Board has implemented regulations that require the electronic submittal of information (ESI) for Groundwater Cleanup programs (section 3890 et seq. of title 23 CCR and 27 CCR, division 3). Starting January 1, 2005, required electronic submittal and submittal of a portable data format (PDF) copy of certain reports was extended to include all State Board groundwater cleanup programs, including the Land Disposal Program. The requirements contained in this Order, conform with the ESI reporting regulations.

ADMINISTRATIVE

40. Definitions of terms used in this Order shall be as set forth in 27 CCR section 20164, title 14 CCR section 17381, CWC section 13050, the General Order, and other applicable state and federal regulations.
41. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes the policy by including requirements for the prevention and remediation of pollution that the Park operation may cause to ground and surface water resources.
42. In southern California, the predicted impacts of climate change are numerous. Annual average temperatures are expected to increase, coupled with a higher frequency of extreme heat days. A likely consequence of this warmer climate will be more severe drought periods, leading to an increase in the amount and intensity of fires and a longer fire season. In addition, precipitation patterns are likely to be modified. A decrease in snowfall, combined with warmer temperatures, will induce a decrease in the amount and duration of snowpack, an essential source of freshwater to the region. Although changes to mean precipitation are expected to be small, the increasing occurrence of extreme precipitation events will amplify the risk of flooding.

Recognizing the challenges posed by climate change, on April 29, 2015, Governor Jerry Brown issued Executive Order B-30-15, which directs state agencies to take climate change into account in their planning decisions, guided by the following principles: Priority should be given to actions that both build climate preparedness and reduce greenhouse gas emissions; where possible, flexible and adaptive approaches should be taken to prepare for uncertain

climate impacts; actions should protect the state's most vulnerable populations; and natural infrastructure solutions should be prioritized.

This Order contains provisions to require planning and actions to address climate-related impacts that can cause or contribute to violations of permit requirements and/or degradation of waters of the state.

43. Revision of the Discharger's WDRs for the Park constitutes an existing project as defined in section 15301, chapter 3, title 14 of the CCR and is therefore exempt from the provisions of the CEQA (Public Resources Code section 21000 et seq.).
44. The Regional Board has notified interested agencies and all known interested persons of its intent to issue requirements for the Park post-closure maintenance. The Regional Board in a public meeting on December 8, 2016 heard and considered all comments pertaining to post-closure maintenance at the Park.
45. Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with CWC section 13320 and title 23 CCR section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., thirty days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that the Discharger shall comply with the following requirements pertaining to the Landfill post-closure maintenance and monitoring:

A. SPECIFICATIONS

1. The Landfill is closed. No MSW or any other wastes may be received at the Landfill for the purpose of disposal.
2. Inert soil, concrete, and asphalt materials that are used for the construction or repair of the final cover, access roads, or other facilities at the Park may be imported, provided that the source, volume, and usage of such imported materials are reported in the corresponding semi-annual monitoring report.
3. The Discharger shall remove any unacceptable wastes that arrive at the Park in violation of the requirements in this Order and discharge such removed waste to a legal point of disposal.
4. The Discharger shall follow the guidelines for site maintenance in these WDRs and the PCMMP. If there is any conflict between provisions stated within the WDRs and the PCMMP, the WDRs provisions will prevail.

B. PROHIBITIONS

1. The discharge of waste to land as a result of inadequate post-closure maintenance practices, and that have not been specifically described to the Regional Board and for which valid WDRs are not in force, is prohibited.
2. The wastes received at the Landfill throughout its operating life shall not:
 - a. cause the occurrence of coliform or pathogenic organisms in the groundwater basin;
 - b. cause the occurrence of objectionable tastes or odors in the groundwater basin;
 - c. cause waters pumped from a groundwater basin to foam;
 - d. cause the presence of toxic materials in the groundwater basin;
 - e. cause the pH of waters in the groundwater basin to fall below 6.5, or rise above 8.5;
 - f. cause the Regional Board's objectives for groundwater or surface waters as established in the Basin Plan to be exceeded; or
 - g. cause pollution, contamination, or nuisance, as defined in CWC section 13050, or adversely affect beneficial uses of groundwater or surface waters as established in the Basin Plan.
3. Odors, vectors, and other nuisances originating from waste that migrate beyond the limits of the Park are prohibited.
4. The discharge of waste to surface drainage courses or groundwater is prohibited.
5. The Discharger shall conduct site operations such that there is no discharge from the Park that causes any Basin Plan objective to be exceeded at any location under, or in the vicinity of, the Park.
6. The Discharger shall comply with all federal, state, and county sanitary health codes, rules, regulations, and ordinances pertinent to the disposal of wastes on land and with the operation and maintenance of the Park.
7. No surface water shall leave the Park except as permitted by an NPDES permit for release of stormwater issued in accordance with the federal Clean Water Act (CWA) and the California Code of Regulations. The Discharger shall maintain and modify, as necessary, a construction related Storm Water Pollution Prevention Plan developed for the Park during its development into an active recreation park.
8. The use of pressurized water lines overlying waste is prohibited unless the water lines are designed in accordance with provision C.12 of this Order.

C. REQUIREMENTS FOR POST-CLOSURE MAINTENANCE

1. The Discharger shall update (as necessary) the PCMMP for the Park within 90 days of the adoption date of this Order, which contains, but is not limited to, the following:

- a. The persons, companies, or agencies responsible for each aspect of Park maintenance, along with their addresses and phone numbers;
 - b. Location map(s) indicating property boundaries and the existing limits of waste, internal roads, and structures within the property boundary;
 - c. Location map(s) of current monitoring and control systems including drainage and erosion control systems and Park gas monitoring and control systems; and
 - d. A description of the methods, procedures, schedules, and processes that will be used to maintain, monitor and inspect the Park.
2. The Park's post-closure maintenance period shall continue until the Regional Board determines that remaining wastes at the Landfill will not threaten water quality.
 3. All containment structures and erosion and drainage control systems at the Park shall be designed and constructed by, or under the direct supervision of a California-registered civil engineer or certified engineering geologist.
 4. The Park shall have containment structures that are capable of preventing degradation of the waters of the state. Construction standards for containment structures shall comply with 27 CCR requirements. The Discharger shall provide design specifications for Regional Board staff review and approval prior to construction of any containment structure.
 5. Drainage controls, structures, and facilities shall be designed to divert any precipitation or tributary runoff and prevent ponding and percolation of water at the Park. When necessary, temporary structures shall be installed as needed to comply with this requirement.
 6. The Park shall be graded and maintained to promote runoff of precipitation and to prevent ponding of liquids and surface water. Erosion or washout of refuse or cover materials by surface flow shall be controlled to prevent off-site migration.
 7. Landfilled areas shall be adequately protected from any washout, erosion of wastes or cover materials. The surface drainage system shall be designed to adequately handle the rainfall from a 100-year, 24-hour storm event.
 8. The migration of gases from the Park shall be controlled as necessary to prevent water pollution, nuisance, or health hazards. The discharge of wastes or waste by-products (i.e., leachate or gas condensate) to off-site surface drainage courses or to groundwater is prohibited.
 9. Gas condensate gathered from the gas monitoring and collection system at the Park shall not be returned to the Landfill. Any proposed modifications or expansions to this system shall be designed to allow the collection, testing and treatment, or disposal by approved methods, of all gas condensate produced at the Park.
 10. The Discharger shall maintain permanent survey monuments at the Landfill throughout the post-closure maintenance period. Benchmarks shall be established and maintained in

- sufficient numbers to enable reference to key elevations and to permit control of critical grading and compaction operations.
11. The structural integrity and effectiveness of all containment structures and the existing cover shall be maintained as necessary to correct the effects of settlement or other adverse factors.
 12. For water lines overlying waste, the design shall consider, but not be limited to, the following:
 - a. Flexible connectors;
 - b. Secondary containment;
 - c. Moisture sensors;
 - d. Rain sensors;
 - e. Annual leak testing;
 - f. Automatic shutoff valves; and
 - g. A maintenance plan describing the inspection and maintenance schedule for all mitigation devices (i.e. PCMMP).
 13. All inspections shall be documented and reported to the Regional Board in accordance with the MRP.

D. REQUIREMENTS FOR GROUNDWATER MONITORING

1. The Discharger shall implement the attached MRP, which is incorporated herein by reference (Attachment T) and revisions thereto in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste at the Landfill.
2. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Executive Officer, proposing modifications to the MRP. The Discharger shall implement any changes to the revised MRP approved by the Executive Officer upon receipt of a signed copy of the revised MRP.
3. The effectiveness of monitoring wells and monitoring devices shall be maintained throughout the Park's post-closure maintenance period in accordance with acceptable industry standards. The Discharger shall maintain a groundwater monitoring well preventative maintenance program (MWPMP) as described in the approved PCMMP. Elements of the program should include a minimum of periodic visual inspections of well integrity, pump removal and inspection, and appropriate inspection frequencies. If a well or piezometer is found to be inoperative, the Regional Board and other interested agencies shall be so informed in writing within seven days after such discovery, and this notification shall contain a time schedule for returning the well or piezometer to operating order.

Changes to the existing program shall be submitted for Executive Officer approval at least 30 days prior to implementing the change(s).

4. If a well or piezometer is proposed to replace an inoperative well or piezometer identified in the MRP, the Discharger shall not delay replacement while waiting for Executive Officer approval. However, a technical report describing the location and construction details shall be submitted to the Regional Board within 30 days of the replacement.
5. The Discharger shall provide for proper handling and disposal/recycling of water purged from designated monitoring wells and piezometer at the Landfill during sampling. Water purged from a monitoring well shall not be returned to that well (or any other Landfill monitoring well as part of this program).
6. Any abandoned wells or boreholes under the control of the Discharger, and situated within the Park boundaries, must be located and properly modified or sealed to prevent mixing of any waters between adjacent water-bearing zones. A notice of intent to decommission a well must be filed with the appropriate regulatory agencies prior to decommissioning. Procedures used to decommission these wells, or to modify wells still in use, must conform to the specifications of the local health department or other appropriate agencies.
7. For any piezometers or monitoring wells installed at the Landfill in the future, the discharger shall submit technical reports for approval by the Executive Officer prior to installation. These technical reports shall be submitted at least 60 days prior to the anticipated date of installation of the wells. These reports shall be accompanied by:
 - a. Maps and cross sections showing the locations of the monitoring points; and
 - b. Drawings and data showing construction details of the monitoring points. These data shall include:
 - i. casing and test hole diameter;
 - ii. casing materials;
 - iii. depth of each hole;
 - iv. the means by which the size and position of perforations shall be determined, or verified, if in the field;
 - v. method of joining sections of casing;
 - vi. nature of filter materials;
 - vii. depth and composition of soils; and
 - viii. method and length of time of well development.

Within 30 days of the installation of a groundwater monitoring well at the Landfill, the Discharger shall submit an as-built report to the Regional Board, including delineation of the stratigraphy encountered, all water bearing zone(s) encountered and water quality data.

8. As of the effective date of this Order, the compliance monitoring wells at the Landfill shall consist of those wells listed in Table T-1 of the MRP. All monitoring wells shall be monitored pursuant to this Order or as directed by the Executive Officer through future revisions of the MRP.

9. The Discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices necessary to comply with the MRP, as adopted or as revised by the Executive Officer.
10. The Point of Compliance for groundwater monitoring for the Landfill is a vertical surface located at the hydraulically downgradient limit of the Landfill that extends through the uppermost aquifer underlying the Landfill pursuant to 27 CCR section 20405(a).
11. In each semi-annual report submitted under the MRP, the Discharger shall summarize any detections in groundwater at the Landfill during the reporting period to determine whether there is measurably significant evidence or a release from the Landfill. The Discharger shall verbally notify the Regional Board staff immediately of the finding and submit written notification within seven days of evidence of a release.

E. REQUIREMENTS FOR ON-SITE WATER USE

1. No water shall be routinely applied at the Park except for irrigation, dust control or other non-emergency uses approved by the Executive Officer. Any water used at the Landfill, except for potable water, recycled water permitted under Water Reclamation Requirements (WRRs) adopted by the Regional Board, and any other water allowed by the Executive Officer, shall be subject to these WDRs.
2. Overflow, runoff, or ponding caused by the over-application or improper management or onsite use of water are prohibited.
3. All uses of potable water shall be within the boundaries of the Park property. During an emergency, this water may be used for firefighting on the Park.

F. REQUIREMENTS FOR REPORTING SCHEDULED ACTIVITIES

1. The Discharger shall comply with all reporting requirements included in the MRP.
2. The Discharger shall notify Regional Board staff at least 30 days prior to any maintenance activities which could alter existing surface drainage patterns or change existing slope configurations. These activities may include, but not be limited to, significant grading activities, the importation of fill material, the design and installation of soil borings, groundwater monitoring wells, and other devices for Park investigation purposes.
3. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
4. The Discharger shall notify the Regional Board of changes in information submitted in the revised PCMMP within 30 days of the change.

G. GENERAL PROVISIONS

1. This Order does not authorize violation of any federal, state, or local laws or regulations.

2. The Discharger has a continuing responsibility for correcting any problems which may arise in the future as a result of waste discharged at the Landfill, and from gases and leachate that may be caused by infiltration of precipitation or drainage waters into the waste disposal units, or by infiltration of water applied to this property during subsequent use of the land or other purposes.
3. These requirements do not exempt the Discharger from compliance with any other current or future law that may be applicable. They do not legalize this waste management facility, and they leave unaffected any further restraints on the disposal or wastes at this waste management facility that may be contained in other statutes.
4. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements", dated July 16, 2015 (Attachment W) which is incorporated herein by reference.
5. The requirements adopted herein neither authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, state or local laws.
6. The filing of a request by the Discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any condition, provision, or requirements of this Order.
7. The Discharger is the responsible party for these WDRs, including any MRP or other body of requirements incorporated by reference therein. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement actions or in modification or revocation of these WDRs by the Regional Board.
8. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
9. This Order is not transferable to any person except after notice to the Executive Officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWC.
10. This Order becomes effective on the date of adoption by the Regional Board.
11. This Order may be terminated or modified by the Regional Board, including but not limited to the following:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts, or
 - c. A change in any condition that required either a temporary or permanent reduction or elimination of the authorized waste discharge.

12. This Order in no way limits the authority of the Regional Board, as delineated in the CWC, to require additional investigations and cleanups pertinent to this project. This Order may be revised by the Regional Board as additional information from the project becomes available.
13. Failure to comply with the terms and conditions of this Order may result in imposition of civil liability against the Discharger by the Regional Board, either by the Regional Board or judicially by the Superior Court, in accordance with CWC section 13350 et seq. and/or referral to the Attorney General of the State of California for such legal action as may be deemed appropriate.
14. The Discharger shall submit a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) no later than twelve months after adoption of this Order. The Climate Change Plan is required pursuant to CWC section 13267 to assess and manage climate change related-effects associated with operations of the Landfill that may affect water quality. The Climate Change Plan shall include an assessment of short and long term vulnerabilities of the Landfill to climate change to ensure that compliance with permit conditions is achieved. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, back-to-back severe storms that are expected to become more frequent.

H. TERMINATION

1. Except for violation enforcement purposes, Regional Board Order No. R4-2004-0157, adopted October 7, 2004, is hereby terminated.

I, Samuel Unger, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 8, 2016.



Samuel Unger, P.E.
Executive Officer

Figure 1:
Location of Paramount Landfill

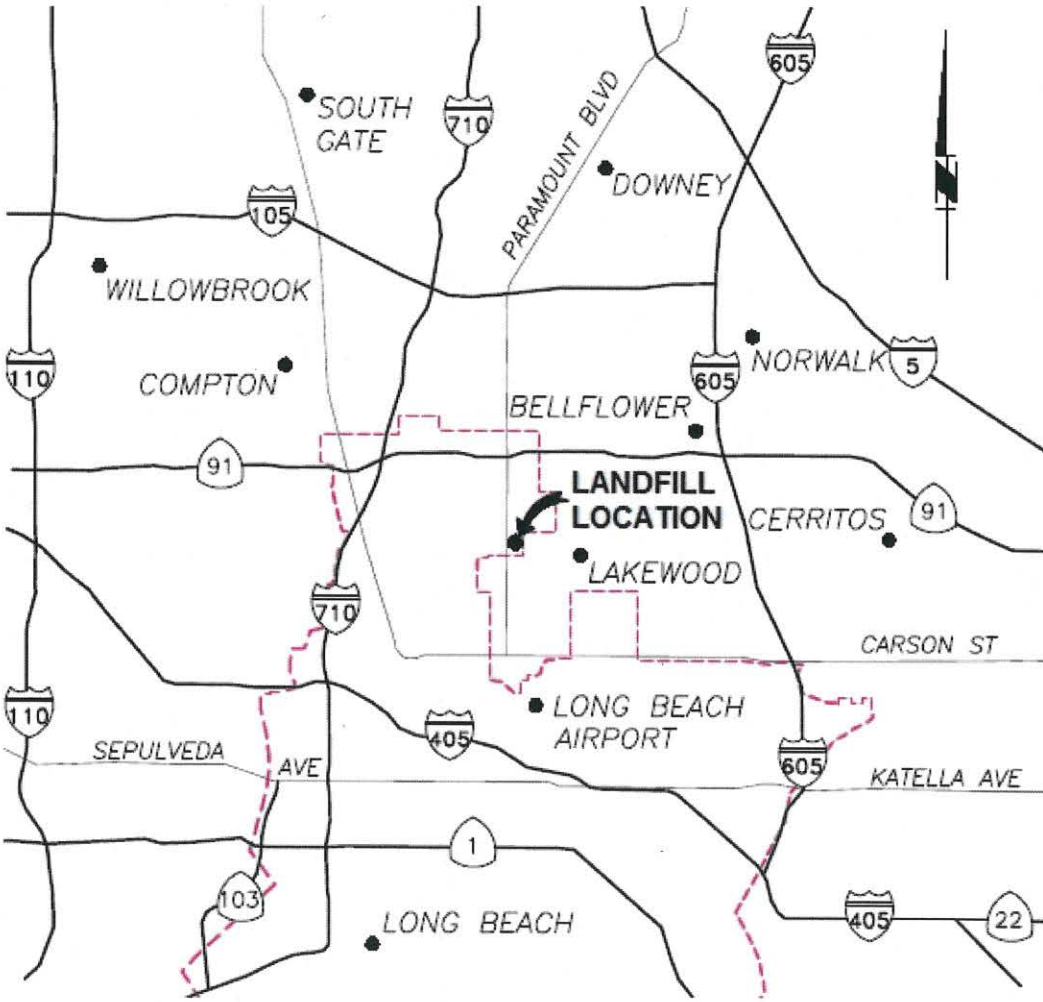
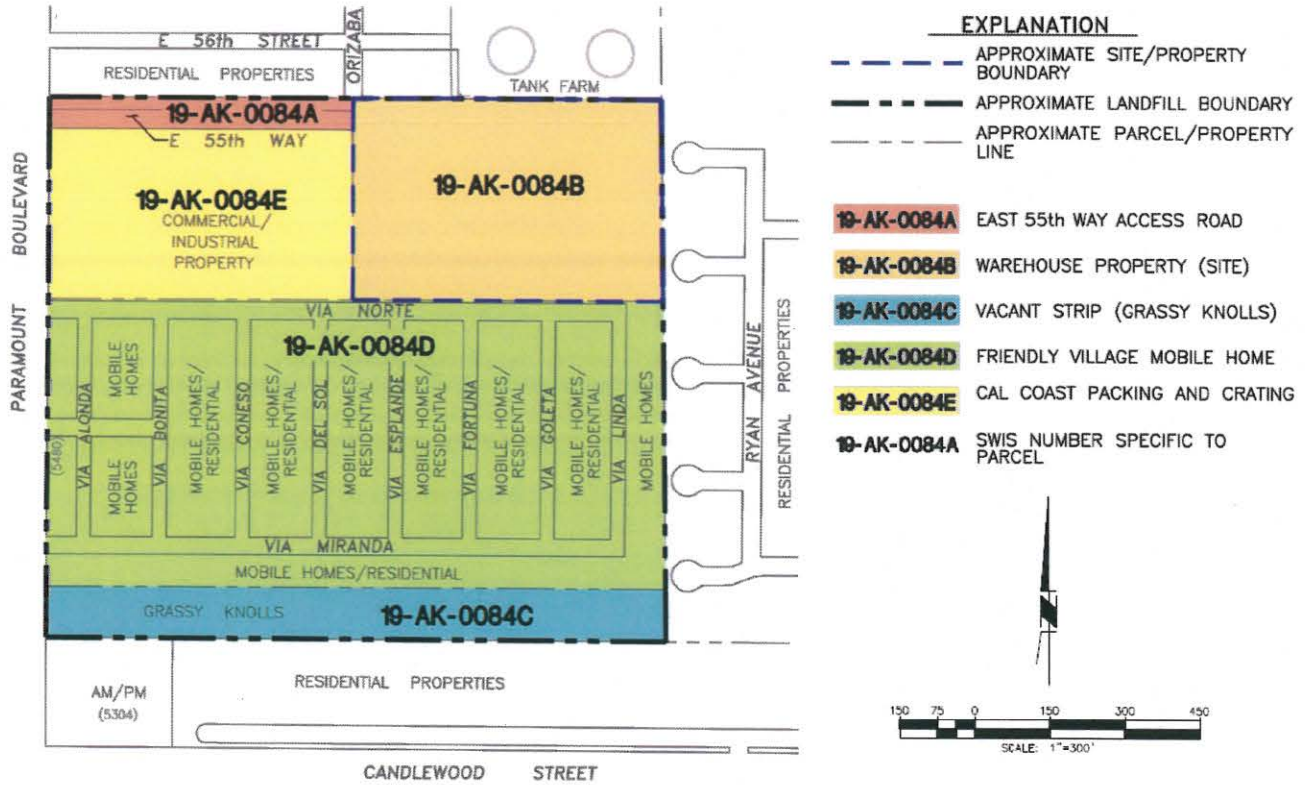


Figure 2:
 Paramount Landfill Parcel Map



**Figure 3:
 Paramount Landfill Groundwater Monitoring Network**

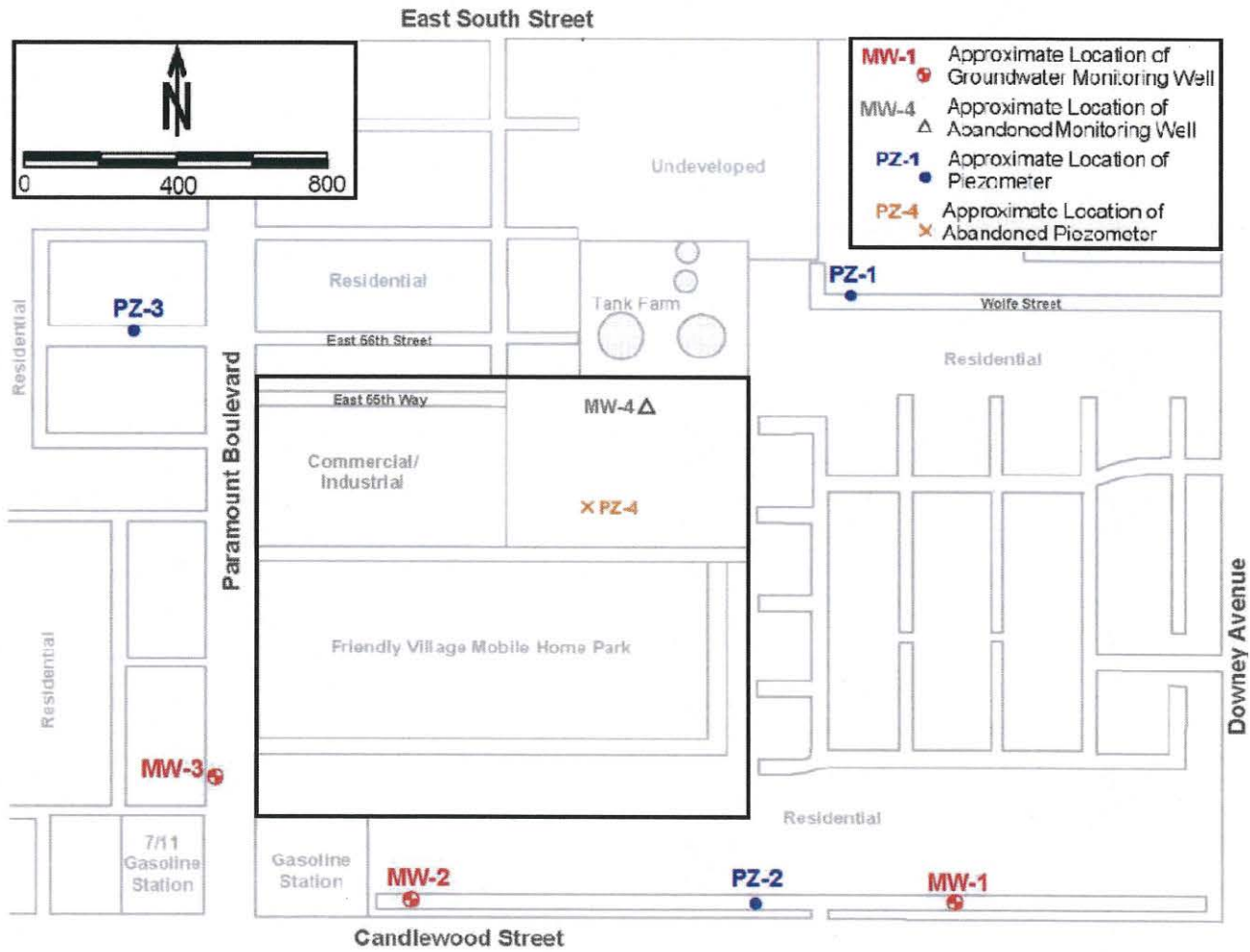
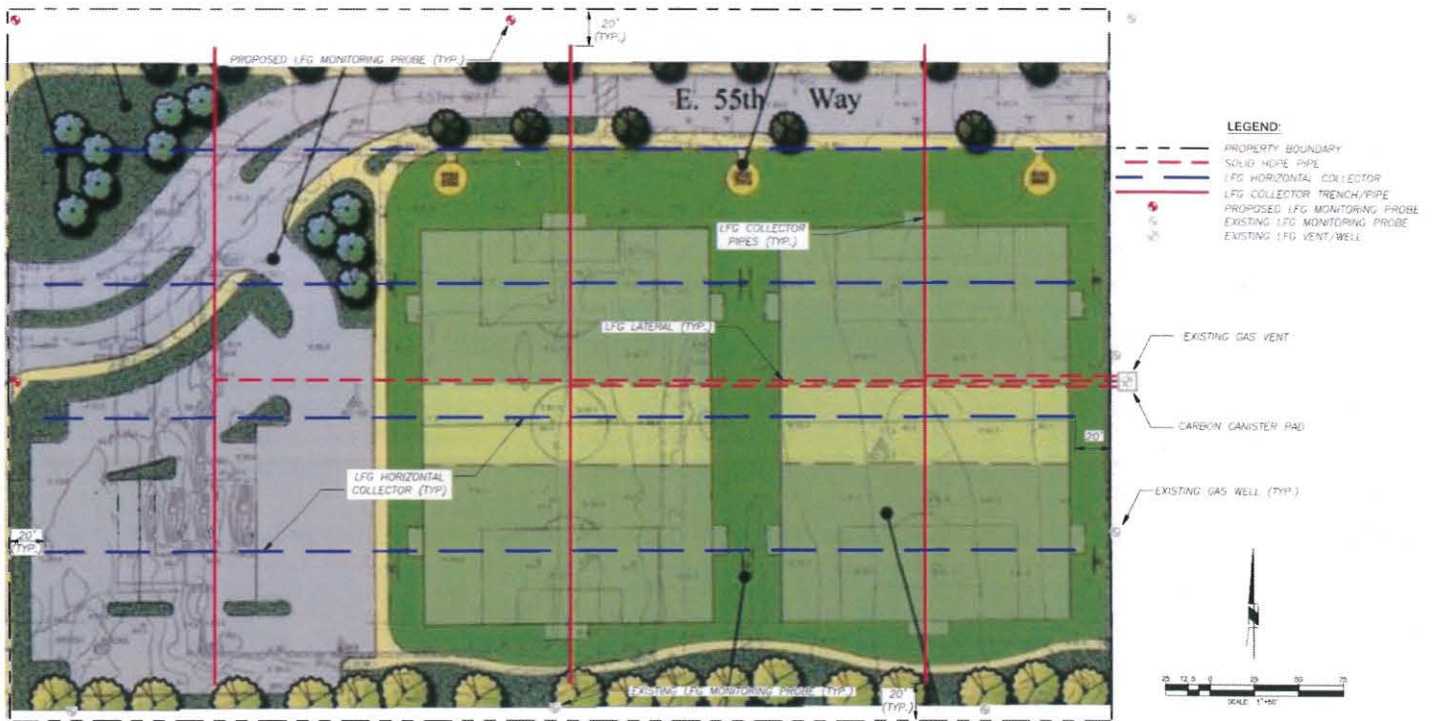


Figure 4:
Paramount Landfill Gas Monitoring Network



Figure 5:
Proposed Park Expansion Gas Collection and Destruction Network



STANDARD PROVISIONS
APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. (Water Code, Sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, and 13350). Failure to comply with any waste discharge requirement, monitoring and reporting requirement, or other order or prohibition issued, reissued or amended by the Los Angeles Water Board or State Water Resources Control Board is a violation of these waste discharge requirements and the Water Code, which can result in the imposition of civil liability. (Water Code, Section 13350, subdivision (a).)

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by California Water Code section 13050. In addition, the discharge of waste classified as hazardous, as defined in California Code of Regulations, Title 23, Section 2521, subdivision (a) is also prohibited.

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. (Water Code, Section 13263)

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date forward. (Water Code, Sections 13267 and 13263)

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. (Water Code, Section 13260, subdivision (c)). A material change includes, but is not limited to, the following:

- (a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

Standard Provisions Applicable to
Waste Discharge Requirements

- (b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- (c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- (d) Increase in flow beyond that specified in the waste discharge requirements.
- (e) Increase in the area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. (California Code of Regulations, Title 23, Section 2210)

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board. (Water Code, Sections 13263)

7. NOTIFICATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. (Water Code, Sections 13260 and 13267)

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. (Water Code, Section 13263, subdivision (g).)

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provisions of these requirements are found invalid, the remainder of the requirements shall not be affected.

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary

Standard Provisions Applicable to Waste Discharge Requirements

facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. (Water Code, Section 13263, subdivision (f).)

11. NOTIFICATION REQUIREMENT

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. (Water Code, Section 13271, subdivision (a).)

12. OIL OR PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. (Water Code, Section 13272)

13. INVESTIGATIONS AND INSPECTIONS

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

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- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. (Water Code, Section 13267)
- (e) Except for material determined to be confidential in accordance with applicable law, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the office of the Los Angeles Water Board. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. (Water Code, Section 13267)

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Office a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

The analysis of any material required pursuant to Division 7 of the Water Code shall be performed by a laboratory that has accreditation or certification pursuant to Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. However, this requirement does not apply to field tests, such as test for color, odor, turbidity, pH, temperature, dissolved oxygen, conductivity, and disinfectant residual chlorine. (Water Code, Section 13176). Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board's Division of Drinking Water. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40CFR Part 136) promulgated by the United States, Environmental Protection Agency (USEPA). (California Code of Regulation, Title 23, Section 2230)

The Quality Assurance-Quality Control Program must conform to the USEPA Guidelines "Laboratory Documentation Requirements for Data Validation", January 1990, USEPA Region 9) or procedures approved by the Los Angeles Regional Water Quality Control

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Board.

All quality assurance and quality control (QA/QC) analyses must be run on the same dates when samples were actually analyzed. All QA/QC data shall be reported, along with the sample results to which they apply, including the method, equipment, analytical detection and quantitation limits, the percent recovery, and explanation for any recovery that falls outside the QC limits, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recoveries. In cases where contaminants are detected in QA/QC samples (e.g., field, trip, or lab blanks); the accompanying sample results shall be appropriately flagged.

The Discharger shall make all QA/QC data available for inspection by Regional Board staff and submit the QA/QC documentation with its respective quarterly report. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the quarterly report.

15. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. (Water Code, Section 13263, subdivision (f).)

16. DISCHARGE TO NAVIGABLE WATERS

A person who discharges pollutants or proposes to discharge pollutants or proposes to discharge pollutants to the navigable waters of the United States within the jurisdiction of this state or a person who discharges dredged or fill material or proposes to discharge dredged or fill material into the navigable waters of the United States within the jurisdiction of this state shall file a report of waste discharge in compliance with the procedures set forth in Water Code section 13260. (Water Code, Section 13376)

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive officer, or an authorized representative,

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may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Office within 24 hours:

- (a) Any bypass from any portion of the treatment facility.
- (b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
- (c) Any treatment plan upset which causes the effluent limitation of this Order to be exceeded. (Water Code, Sections 13263 and 13267)

18. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies off all reports required by this Order, and record of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

- (a) The date, exact place, and time of sampling or measurement;
 - (b) The individual(s) who performed the sampling or measurement;
 - (c) The date(s) analyses were performed;
 - (d) The individual(s) who performed the analyses;
 - (e) The analytical techniques or method used; and
 - (f) The results of such analyses.
19. (a) All application reports or information to be submitted to the Executive Office shall be signed and certified as follows:
- (1) For a corporation – by a principal executive officer or at least the level of vice president.
 - (2) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.
 - (3) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

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- (b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:
- (1) The authorization is made in writing by a person described in paragraph (a) of this provision.
 - (2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
 - (3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Water Code Sections 13263, 13267, and 13268)"

20. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the Public Utilities Commission, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with California Code of Regulations, title 23, section 3680. State Boards may accept experience in lieu of qualification training. (California Code of Regulations, Title, 23, Sections 3680 and 3680.2.) In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plant operator of appropriate grade certified by the State Department of Public Health where reclamation is involved. (California Code of Regulations, Title, 23, Section 3670.1, subdivision (b).)

ADDITIONAL PROVISIONS APPLICABLE TO
PUBLICLY OWNED TREATMENT WORKS' ADEQUATE CAPACITY

21. Whenever a regional board finds that a publicly owned wastewater treatment plant will reach capacity within four years, the board shall notify the discharger. Such notification shall inform the discharger that the regional board will consider adopting a time schedule order pursuant to Section 13300 of the Water Code or other enforcement order unless the discharger can demonstrate that adequate steps are being taken to address the capacity problem. The notification shall require the discharger to submit a technical report to the regional board within 120 days showing how flow volumes will be prevented from exceeding existing capacity or how capacity will be increased. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The time for filing the required technical report may be extended by the regional board. An extension of 30 days may be granted by the executive officer. Longer extensions may

Standard Provisions Applicable to
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be granted by the regional board itself. (California Code of Regulations, Title, 23, Section 2232.)

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

MONITORING AND REPORTING PROGRAM (NO. CI-8372A)

**FOR
CITY OF LONG BEACH
(PARAMOUNT LANDFILL)
FILE NO. 93-079**

This Monitoring and Reporting Program (MRP), No. CI-8372A is issued by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to the City of Long Beach (Discharger) for the redeveloped Davenport Park (Park) portion of the Paramount Landfill (Landfill) pursuant to California Water Code (CWC) section 13267(b). This MRP is incorporated by reference into Regional Board Order No. R4-2016-XXXX (Order), adopted on XXXX, 2016. The Discharger shall begin implementing this MRP following the adoption of the Order. This MRP is required to assure compliance with the conditions of the Order and is issued to the Discharger.

A. GENERAL

1. 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.
2. The Discharger shall comply with the requirements of title 27 of the California Code of Regulations (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.
3. **Schedule** - The Discharger shall submit all regular reports required in this MRP to this Regional Board in accordance with the following schedule:

<u>Report</u>	<u>Date due to the Regional Board</u>
First Semi-Annual Report (for the period from October 1 to March 30)	April 30
Second Semi-Annual Report (for the period from April 1 to September 31)	October 30
Annual Report (for the period from January 1 to December 31)	April 30

The Discharger may combine the Annual Report with the Second Semi-Annual Report into a single report as long as this is clearly indicated on the cover page and all the required information is included. The compliance index number (CI-8372A), as well as the period that the report covers, shall be clearly displayed on the cover page of each report.

4. **Transmittal Letter** - A letter transmitting the essential points shall accompany each report. Such a 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.
5. **Signature, certification, and perjury statement requirements** - All letters transmitting monitoring reports shall follow the signature, certification, and perjury statement requirements provided in provision 19 of the attached "Standard Provisions Applicable to Waste Discharge Requirements", dated July 16, 2015 (Attachment W).
6. All reports required under this MRP shall be submitted to the State Water Resources Control Board GeoTracker database system in the form of searchable Portable Document Format (PDF) files (Geotracker Global ID L10008377272). In addition, all groundwater monitoring data shall also be submitted to GeoTracker in Electronic Deliverable Format. A hard copy of the report, including all original laboratory reports and field records that are used in preparation of the reports, must be kept in the Landfill's Operating Record pursuant to 27 CCR, section 20415(e)(16).

B. REQUIRED SEMI-ANNUAL MONITORING REPORTS

Semi-annual Reports shall include, but should not be limited to, the following:

1. **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.
2. **Site Conditions** - General discussion of site conditions (geology, climate, 100-year 24-hour storm, and watershed specifics, etc.) relative to water quality monitoring.
3. **Narrative Description** - A narrative discussion of the site's various monitoring activities and results.
4. **Laboratory Results** - Laboratory results and statements demonstrating compliance with water quality monitoring requirements 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.

5. **Standard Observations** - A summary and certification of completion of all Standard Observations for the Park property in accordance with provision F.2 of this MRP. The records of observation must be included in the semi-annual reports required by the Order.
6. **Landfill Gas Condensate** - A summary of the total estimated volume, on a semi-annual basis, of landfill gas (LFG) condensate that has been discharged from any landfill gas collection and removal system.

C. ANNUAL SUMMARY REPORT

The annual summary report shall include at least the following:

1. **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 up-coming year.
2. **Graphical Presentation of Analytical Data** - For each monitoring point, submit in graphical format the laboratory analytical data for all samples taken. 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. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data.
3. **Analytical Data** - All monitoring analytical data obtained during the previous year, presented in tabular form.
4. **Concentration Limits** - The Annual Summary Report shall include updated Concentration Limits required in provision E.5 of this MRP.
5. **Map(s)** - Map(s) showing the areas where any significant events have taken place during the previous calendar year.

D. CONTINGENCY RESPONSE

1. **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:
 - a. Within 24 hours, verbally notify the designated Regional Board staff contact as to the monitoring point(s) and constituent(s) or parameter(s) involved;
 - b. Provide written notification by certified mail within seven days of such determination; and

- c. Do either of the following:
 - i. Carry out a discrete re-test in accordance with provision E.6.c of this MRP. 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 provision D.4 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 by certified mail within seven days, or
 - ii. Make a determination, in accordance with 27 CCR section 20420(k)(7), that a source other than the waste management unit caused the 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.
2. **Physical Evidence of a Release** - If either the Discharger or the 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:
 - a. Within seven days notify the Regional Board of this fact (or acknowledge the Regional Board's determination).
 - b. Carry out the requirements of provision D.4 of this MRP for all potentially-affected monitored media.
 - c. Carry out any additional investigations stipulated in writing by the Executive Officer for the purpose of identifying the cause of the indication of a release to groundwater.
3. **Release Discovery Response** - If either the Discharger or the Executive Officer concludes that a release has been discovered, the following steps shall be carried out:
 - a. If this conclusion is not based upon monitoring for all constituents of concern (COCs), the Discharger shall sample for all COCs at all monitoring points in the affected medium. Within seven days of receiving the laboratory analytical results, the Discharger shall notify the Regional Board, via GeoTracker, 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.
 - b. The Discharger shall, within 90 days of discovering the release, submit an Amended Report of Waste Discharge proposing an Evaluation Monitoring and Reporting Program that meets the requirements of 27 CCR sections 20420 and 20425.
 - c. The Discharger shall, within 180 days of discovering the release, submit a preliminary Engineering Feasibility Study meeting the requirements of 27 CCR section 20430.
 - d. 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 Executive Officer directs the Discharger to begin the Evaluation Monitoring and Reporting Program.

4. **Release Beyond Facility Boundary** - Any time the Discharger concludes (or the Executive Officer directs the Discharger to conclude) 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:
 - a. 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.
 - b. Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.
 - c. Each time the Discharger sends a notification to Affected Persons (under a. or b., above), The Discharger shall, within seven days of sending such notification, provide the Regional Board with both a copy of the notification and a current mailing list of Affected Persons.

E. GROUNDWATER MONITORING

1. The Discharger shall conduct analytical monitoring of groundwater 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 Protection Standard (WQPS) - In accordance with 27 CCR section 20390, WQPS for the Landfill is established as the natural background groundwater quality at the site, which is set to either the statistically predicted value (if the constituent naturally exists) or the laboratory detection limit (if the constituent does not naturally exist in groundwater).
3. Routine Groundwater Monitoring - Current groundwater Monitoring Parameters (MPars) are listed in Table T-2.
4. Constituents of Concern (COC) List - As of the date of the adoption of this MRP, the COC list for the Landfill consists of all the semi-annually monitored parameters.
5. Development and Updating of Concentration Limits - The Discharger shall develop, and submit to the Regional Board, all Concentration Limits following the procedures provided in 27 CCR, section 20400 et seq. The revised concentration limits shall be submitted with the next semi-annual report, following the adoption of Regional Board Order No. R4-2016-XXXX. Subsequently, the Discharger shall review Concentration Limits annually in its semi-annual reports submitted to the Regional Board. When appropriate, new Concentration Limits shall be proposed.

6. Statistical Data Analysis Methodology

- a. The Discharger shall implement data analysis methods compliant with the requirements of 27 CCR, Section 20415 (et seq.) to evaluate any statistically significant indications of a release to groundwater from the Landfill.
- b. 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% 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.
- c. In the event that an approved data analysis method provides a preliminary indication that a given monitoring parameter 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).
- d. The verification procedure shall be performed only for the constituent(s) or parameter(s) that has shown "measurably significant" (see 27 CCR section 20164) evidence of a release, and shall be performed only for those monitoring points at which a release is indicated.
- e. For any COC or monitoring parameter 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 California Non-statistical Data Analysis Method (CNSDAM) test described in provision E.7 of this MRP.

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

- a. 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, or CAP), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" as described below:
 - i. Scope List - The scope list subject to CNSDAM for a monitoring well shall constitute all Mpars for which less than 10% of the background data points exceed its MDL; and
 - ii. Two Triggers - from the scope list, for an initial test (or, for a retest, the modified scope list under provision E.7.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 release of waste from the Landfill at that well, if either:

- A. Two or more of the MPars on a monitoring well's scope list exceed their respective MDL; or
- B. At least one of the MPars on a monitoring well's scope list equals or exceeds its respective PQL.

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

- i.* In the event that the Discharger concludes (pursuant to provision E.7.a.ii of this MRP) that there is a preliminary indication, then the Discharger shall immediately notify Board staff by phone or e-mail and, within 30 days of such indication, shall collect two new (retest) samples from the indicating compliance well.
- ii.* For any given compliance well, the Discharger shall analyze the retest samples only for those constituents indicated in that well's original test, under provision E.7.a.ii 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 provision E.7.a.ii of this MRP, but using this modified scope list) to separately analyze each of the two suites of retest data at that compliance well.
- iii.* If either (or both) of the retest samples trips either (or both) of the triggers under provision E.7.a.ii 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). Thereafter, the Discharger shall monitor the indicated constituent(s) in tracking mode at that well, shall remove the constituent(s) from the scope list created for that well, and notify the Board in writing. and highlight this conclusion and these changes in the next scheduled monitoring report and in the Landfill's operating record.

8. Groundwater Flow Direction - The Discharger shall measure the water level in each well, at least semi-annually, including the times of expected highest and lowest elevations of the water level, and determine the presence of horizontal and vertical gradients, and groundwater flow rate and direction for the respective groundwater body.

F. SITE INSPECTIONS

1. The Discharger shall inspect the Landfill in accordance with the following schedule, and record, at a minimum, Standard Observations.
 - a. During the wet season (October through April), following each storm that produces storm water runoff, or on a monthly basis if no storm produces runoff during the month.
 - b. During the dry season, a minimum of one inspection shall be performed every three months.
2. Standard Observations during a site inspection shall include at least the following:

- a. Evidence of any surface water leaving or entering the Landfill, estimated size of affected area, and estimated flow rate (show affected area on map).
- b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
- c. Evidence of erosion and/or of exposed refuse.
- d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.
- e. Evidence of ponded water at any point on the waste management facility (show affected area on map).
- f. Landscape and irrigation systems.
- g. Integrity of all drainage systems.
- h. LFG collection system.
- i. Site security.

G. SAMPLING AND ANALYTICAL METHODS

1. 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 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 Method Detection Limit (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 or the limit actually achieved shall be included.

- d. All quality assurance/quality control (QA/QC) data shall be reported, along with the sample results to which it applies, including the method, equipment, and analytical detection limits, the recovery rates, an explanation (corrective action) of any QA/QC measure that is outside the laboratory control limits, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery.
- e. 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).
- f. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.
- g. In cases where contaminants are detected in QA/QC samples (i.e. field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.
- h. Proper chain of custody procedures shall be used in all sampling activities at the Landfill.
- i. No filtering of samples taken for organics analyses shall be permitted. Samples for organic analyses shall be taken with a sampling method that minimizes volatilization and degradation of potential constituents.
- j. Thirty-Day Sample Procurement Limitation - For any given monitored medium, the samples taken from all monitoring points to satisfy the data analysis requirements for a given reporting period shall all be taken within a span of thirty days, and shall be taken in a manner that insures sample independence to the greatest extent feasible [27 CCR section 20415(e)(12)(B)]. For any sampling event during which samples are not collected within thirty days, the Discharger shall report the sampling period in the corresponding semiannual report.
- k. Groundwater sampling shall also include an accurate determination of the groundwater surface elevation and field parameters¹ (temperature, pH, electrical conductivity, turbidity) for that monitoring point [27 CCR section 20415(e)(13)]; groundwater elevations taken prior to purging the well and sampling for monitoring parameters shall be used to fulfill groundwater flow rate/direction analyses required under provision E.8 of this MRP. All field parameter measurements shall be included in the semiannual reports submitted to the Regional Board.

¹ "Field parameters" may also be tested in a laboratory instead of being tested in the field.

H. RECORDS TO BE MAINTAINED

1. 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 Executive Officer. 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. Calculations of results; and
 - f. Results of analyses, and MDL and PQL for each analysis

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

DATE: December 8, 2016

Table T-1:
Water Quality Monitoring Locations

Media Monitored	Monitoring Points	Location
Groundwater	PZ-1, PZ-3	Upgradient
Groundwater	MW-1, MW-2, MW-3, PZ-2	Downgradient

Table T-2:
Constituents of Concern

Monitoring Parameters (MPars)		Supplemental Parameters ³	Other COCs ⁴
Indicator Parameters ²			
Inorganic Parameters:	Bromochloromethane	Sulfides	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
Chloride	Bromodichloromethane	Nitrite	
Nitrate-N	Bromoform	Chemical oxygen Demand	
Sulfate	Bromomethane	Total Organic Halides	
Boron, total	c-1,2-Dichloroethene	Polychlorinated Biphenyls	
Total dissolved solids	c-1,3-Dichloropropene	Oil and Grease	
Total organic carbon	Carbon Disulfide	pH, field	
	Carbon Tetrachloride	Specific conductance, field	
Appendix I VOCs:	Chlorobenzene	Temperature, field	
1,1,1,2-Tetrachloroethane	Chloroethane	Turbidity, field	
1,1,1-Trichloroethane	Chloroform		
1,1,2,2-Tetrachloroethane	Chloromethane		
1,1,2-Trichloroethane	Dibromochloromethane		
1,1-Dichloroethane	Dibromomethane		
1,1-Dichloroethene	Dichlorodifluoromethane		
1,2,3-Trichloropropane	Ethylbenzene		
1,2-Dibromo-3-Chloropropane	Iodomethane		
1,2-Dibromoethane	Methylene chloride		
1,2-Dichlorobenzene	o-Xylene		
1,2-Dichloroethane	p/m-Xylene		
1,2-Dichloropropane	Styrene		
1,4-Dichlorobenzene	t-1,2-Dichloroethene		
2-Butanone	t-1,3-Dichloropropene		
2-Hexanone	t-1,4-Dichloro-2-Butene		
4-Methyl-2-Pentanone	Tetrachloroethene		
Acetone	Toluene		
Acrylonitrile	Trichloroethene		
Benzene	Trichlorofluoromethane		
	Vinyl Acetate		
	Vinyl Chloride		
	Other Organics:		
	1,4-Dioxane		

² Indicator Parameters: These constituents are considered capable of providing reliable indication of a release from the Landfill. The Discharger shall apply the statistical analyses or non-statistical analysis requirements of this MRP for all indicator parameter constituents to analyze groundwater monitoring data obtained under this program for all downgradient groundwater monitoring wells on a semi-annual basis.

³ Supplemental Parameters: These are constituents that may 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 be on an annual basis and will generally be used to differentiate between any distinct groundwater bodies and will not be subjected to routine statistical analysis.

⁴ Other COCs: These include trace metals or other pollutants that may be required for confirmatory testing pursuant to a directive by the Executive Officer.

Figure T-1:
Monitoring Well Location Map

