CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2014-0033

WASTE DISCHARGE REQUIREMENTS
AND RESCISSION OF RESOLUTION No. 70-22 for:

CITY OF SAN JOSE
MARTIN PARK LANDFILL
FORMER MUNICIPAL SOLID WASTE SITE
SAN JOSE, SANTA CLARA COUNTY

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

DISCHARGER AND LOCATION

1. Owner, operator, and discharger named: The closed Martin Park Landfill (also referred to as the landfill or the site) is owned by the City of San Jose, hereinafter also referred to as the Discharger.

2. Landfill location: The Martin Park Landfill is located at the northeast intersection of Melbourne Boulevard and Forestdale Avenue in San Jose (Figure 1). The site is bounded by residences to the east, west, and south and by an elementary school and existing park to the north. The site encompasses an area of approximately 5 acres (Figure 2).

OPERATIONAL AND REGULATORY HISTORY

3. Operational history: The site was originally used as a clay borrow pit for brick and clay pipe manufacturing from the 1940s until 1970. In 1970, G&M Construction Company purchased the land for use as a Class III construction debris disposal site. The site accepted debris until 1974, when the landfill was reportedly closed and capped then sold to the City of San Jose.

4. Regulatory history: Resolution No. 70-22 prescribing requirements for waste discharge was issued for G&M Construction Company by the Water Board on March 26, 1970. The Resolution limited waste acceptance to only three years, required that waste be kept from waters of the State, and required submission of technical reports if necessary; no groundwater or leachate monitoring was required. These Waste Discharge Requirements (WDRs) rescind Resolution No. 70-22.

PURPOSE OF ORDER

5. These WDRs are being established to recognize and approve the Post-Closure Land Use Plan (PLUP; BKF, 2007), as well as establish requirements for the anticipated development of the site as a soccer field with related park amenities and to bring the landfill into compliance with the appropriate portions of Title 27 of the California Code of Regulations that govern final capping, referred to hereinafter as Title 27.

SITE DESCRIPTION

6. Waste placement: The Martin Park Landfill is unlined and has no leachate collection or extraction system. Wastes were placed directly into the excavated clay pit to a depth of approximately 23 feet below the ground surface (bgs).

7. Waste types and amounts: Approximately 70,000 to 80,000 cubic yards of material were disposed at the site. According to the landfill characterization report (Lowney Associates, 2005), debris at the site consists of wood, glass, plastic, cement, metal cable and wire, and brick within a sandy/silty clay matrix ranging from 2 feet to 23 feet bgs.

8. Landfill Cap: After landfill operations ceased in 1974, the landfill was capped with 2 to 3 feet of discontinuous sand, gravel, and clay layers (Lowney Associates, 2005). The source and placement details of the cover soil are unknown; however, geotechnical data collected from test pits across the cap show good compaction and indicate moderate permeability for water infiltration.

9. Site development plan: The Discharger is planning construction of a soccer field with related park amenities, such as picnic tables and barbeques, a walking path around the perimeter of the landfill, and vegetated areas (Figure 3).

   Prior to project construction, a final cover will be installed that includes the following layers from bottom to top: a minimum 2-foot thick compacted foundation layer using existing cap materials; a minimum 1-foot thick compacted low-permeability clay layer; a 6.5-inch layer of permeable gravel or crushed stone, which will house a perforated 4-inch subdrain pipe for capture of any excess irrigation water; a 6-inch layer of sand; a 1-foot layer of fill; and finally a 6-inch loam topsoil layer which will be covered by turf. The final ground surface will be graded to promote drainage, such that a high point will exist in the middle of the soccer field, with sloping in all directions at an approximate grade of 2%. A subdrain system will be installed along the northern and southern perimeters of the site to facilitate sufficient drainage. In addition, perforated pipes will be installed around the perimeter of the entire landfill leading to seven catch basins along the west and east sides of the site, which will connect to the existing storm drain system (BKF, 2006).

   The soccer field turf will be irrigated with recycled water via a subgrade piping system equipped with a flow sensor. The system will be regulated by a remote control valve and monitored for potential over-watering. Three clusters of drought-tolerant, shallow-rooted trees will be planted near the picnic area southeast and southwest of the soccer field. The trees will each have two subgrade bubblers that will also be equipped with a flow sensor and be controlled remotely.

   A walkway is planned through the park, around the soccer field, and will tie into the existing sidewalk along the southeastern perimeter of the landfill and adjacent to Forestdale Avenue. The existing sidewalk installation in 2008 (during construction of the southern portion of the landfill gas cutoff wall) included a 40-mil thick geomembrane to connect with the compacted clay layer of the landfill cover.

SITE GEOLOGIC AND HYDROGEOLOGIC SETTING

10. Stratigraphy: The site is located near the center of the Santa Clara Valley, an extension of the structural depression occupied by San Francisco Bay. The alluvial sediment of the Santa Clara Valley is composed of an unconsolidated mixture of interbedded gravel, sand, silt, and clay. Regionally, the area is underlain by Holocene-aged alluvial fan deposits composed of fine-grained sand, silt, and clay with minor gravel.

11. Groundwater: The site is located within the Santa Clara groundwater subbasin. The water-bearing formations of the Santa Clara subbasin include Pliocene to Holocene age continental deposits of unconsolidated to semi-consolidated gravel, sand, silt, and clay (DWR 1975). Locally, a confined zone is created in the northern portion of the subbasin where overlain by a clay layer of low permeability (SCVWD 2001).

    Between 1987 (Bissell and Karn) and 1989 (Terratech), five groundwater monitoring wells (MW-1, MW-2, and MW-4 through MW-6) were installed at the site. During installation of MW-4 through MW-6, a confined aquifer of silty sand was encountered in two of the wells at a depth ranging from 25 to 36 feet bgs. The predominant groundwater flow direction was toward the west/southwest, at an approximate gradient of 0.004 foot per foot. In more recent groundwater quality evaluations (Lowney Associates, 2005 and 2006), groundwater was encountered from approximately 17 feet to 25 feet bgs flowing toward the west/northwest.

12. Surface water: The nearest surface water body is Coyote Creek, approximately 800 feet west of the site. Surface runoff from the site drains toward Coyote Creek.

13. Geologic structure and landfill stability: The nearest active fault listed on the Santa Clara County Fault Hazard Zones map is the Evergreen Fault, located approximately 3.5 miles northeast of the site. The Calaveras Fault is located approximately 7.5 miles northeast of the site, the Hayward-Rogers Fault is located approximately 10 miles northeast of the site, and the San Andreas Fault is located 13 miles southwest of the site.

    The site appears to be in an area of historic liquefaction due to local geologic or groundwater conditions (2001 Seismic Hazards Map, Department of Conservation), which indicates potential for permanent ground displacement during a large magnitude earthquake.

WATER QUALITY AND SITE CONTAMINATION

14. Ambient water quality: Water Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS (greater than 3000 mg/L TDS), high background contaminant levels, or those areas with a low yield. Between 1987 and 1989, TDS concentrations ranged from 750 mg/L to 2,400 mg/L in five shallow groundwater monitoring wells at the site. Permeability testing done in 1987 and 1989 indicate aquifer yield would be moderate, based on calculated hydraulic conductivities. Currently, shallow groundwater is not used a source of drinking water; however, based on the criteria in Resolution No. 89-39, it is possible that shallow groundwater beneath the site could be used as a source of drinking water in the future.

15. Impacts to water quality from the landfill: Because of the shallow depth to groundwater and the absence of a liner and leachate extraction system, some commingling of leachate generated at the landfill with underlying groundwater is observed at this site. Groundwater beneath the landfill was first analyzed in 1987 as part of the Phase I Investigation and Solid Waste Assessment Test Proposal (SWAT program) for the site. No volatile organic compounds (VOCs) or pesticides were detected in the two onsite monitoring wells (MW-1 and MW-2); however, levels of mercury were above the U.S. Drinking Water Standards established at the time (Bissell & Karn, 1987).

    In 1988 and 1989, three additional monitoring wells (MW-4 through MW-6) were installed and sampled for a total of four quarters as part of the SWAT program and supplemental investigation. The final monitoring event in June 1989 revealed that levels of barium, copper, iron, and lead were above the U.S. Drinking Water Standards; based on this data, and the absence of elevated concentrations of mercury over the four quarters, the mercury levels reported in 1987 were considered suspect. Monitoring well MW-5 contained low levels of acetone (up to 120 µg/L), benzoic acid (26 µg/L), methylene chloride (up to 100 µg/L), and phenol (up to 4.5 µg/L); however, it was assumed that the acetone and methylene chloride concentrations could be attributed to analytical equipment and procedures.

    In 2005, three exploratory borings were installed to evaluate groundwater quality. The exploratory borings and existing monitoring well MW-4 (the four remaining monitoring wells could not be located) were sampled for three quarters. Laboratory results indicated that there were no total petroleum hydrocarbons, fuel oxygenates, or VOCs in groundwater beneath the site. Some metals (cobalt, copper, lead, mercury, and molybdenum) were detected in the groundwater samples; however, concentrations were below either the Maximum Contaminant Levels (MCLs) set for drinking water standards (copper, lead, and mercury) or the Environmental Screening Levels (ESLs) for all metals without an established MCL (cobalt and molybdenum).

    Based on groundwater quality data collected thus far, it appears that further monitoring of metals is warranted (see Attachment A).

BASIN PLAN

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

BENEFICIAL USES

17. The beneficial uses of groundwater beneath the landfill include:

    a) Municipal and domestic supply
    b) Industrial process and service supply
    c) Agricultural fresh water supply

MONITORING PROGRAMS

18. Groundwater and leachate monitoring: There are currently no groundwater or leachate monitoring programs in place for the site. Only one monitoring well, MW-4, exists at the site, and there are no leachate wells. The remaining four groundwater monitoring wells installed as part of the SWAT program have not been located or properly abandoned to the best of the Discharger's knowledge. Temporary groundwater monitoring ended in 2005 after three quarters of sampling. See Provisions C. 4 and C.11 for more information.

19. Landfill gas monitoring: A landfill gas cutoff wall and vent trench, including passive landfill gas vent risers and gas probes, was constructed around the northwestern perimeter of the site in 2005. This work was performed in tandem with new home construction along South 22nd Street to the west of the site.

    After detection of elevated methane levels (above the lower explosive limit of 5%) around south and eastern perimeter of the site (along Forestdale Avenue), the Discharger constructed a vapor barrier trench with passive landfill gas vent risers around the remainder of the landfill in 2009, providing a continuous methane barrier. Landfill gas monitoring is conducted quarterly from 37 perimeter probes (see Figure 2 for locations).

20. Stormwater: Title 40 of the Code of Federal Regulations (CFR), Parts 122, 123, and 124, require specific categories of industrial activities, including landfills, to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges. The Water Board has issued NPDES Permit No. CAS612008 (Order No. R2-2009-0074) to the Discharger for stormwater discharges within the San Francisco Bay region. These measures require all new and redevelopment projects that result in the addition or replacement of impervious surfaces of 10,000 square feet or more to include stormwater treatment measures designed to treat an optimal volume of flow or runoff from the site and the proper installation, operation, and maintenance of such treatment measures.

    Currently, there are no stormwater drainage or erosion control systems on the landfill, and stormwater sampling is not conducted. The proposed redevelopment will not create enough impervious surface area for the NPDES requirements to apply.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

21. CEQA: An Initial Study/Mitigated Negative Declaration (IS/MND) was completed for construction of the landfill gas cutoff wall and vent trench around the landfill perimeter and development of the site as a public park complete with a soccer field and picnic area. On January 3, 2008, the City of San Jose, the lead agency, adopted a MND (SCH No. 2007112117) for the proposed development. The City of San Jose filed a Notice of Determination on January 9, 2008. The Water Board reviewed and considered the environmental effects of the project as shown in the MND. The Water Board finds that the significant environmental effects of the proposed activities, which are within the Water Board's purview and jurisdiction, have been identified and mitigated to less than significant levels as long as the following conditions, which were required of the project by the City of San Jose, are satisfied:

a) Biological: Prior to beginning any construction at the site, nesting raptor and burrowing owl surveys will be performed by an ornithologist to avoid disturbance during nesting seasons.

b) Hazards: Recommendations presented in the PLUP shall be implemented, including groundwater monitoring requirements (as outlined in the attached Self-Monitoring Program) and continuation of quarterly landfill gas sampling.

c) Hydrology: Preparation and implementation of a Stormwater Pollution Prevention Plan.

There have been no substantial changes to the project since the MND that would require subsequent or supplemental environmental documents under 14 Cal. Code of Regs § 15162.

22. Public notice: The Water Board has notified the Discharger and interested agencies and persons of its intent to adopt WDRs,and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

23. Public meeting: The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Resolution No. 70-22 is rescinded, and the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 of the California Code of Regulations and Division 7 of the California Water Code (CWC) and shall comply with the following:

A. PROHIBITIONS

1. No additional waste shall be deposited or stored at this site.

2. The relocation of wastes to or from any waste management unit shall not create a condition of pollution or nuisance as defined in section 13050 (l) and (m) of the CWC. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.

3. Leachate or ponded water containing leachate or in contact with waste shall not be discharged to waters of the State unless specifically authorized under an NPDES permit.

4. The creation of any new waste management units at this landfill is prohibited.

5. The Discharger shall not excavate within or reconfigure any existing waste management unit without prior Water Board approval.

6. The Discharger shall not perform any intrusive activities on the landfill surface that have the potential to negatively affect the integrity and proper function of the landfill cap, such as digging or trenching, without prior Water Board approval.

7. The Discharger shall not disc the landfill cap. Alternate methods of controlling vegetative growth, which do not affect the integrity of the landfill cap, shall be utilized.

8. Untreated or inadequately treated groundwater or leachate shall not create a condition of pollution or nuisance as defined in section 13050 (m) of the CWC nor degrade the quality of waters of the State or of the United States.

9. The Discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility: further degradation of groundwater quality and/or increasing lateral extent or concentrations of existing groundwater impacts.

B. SPECIFICATIONS

1. All reports pursuant to this order shall be prepared under the supervision of a California registered professional civil engineer, professional geologist, or certified engineering geologist.

2. The site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.

3. Internal site drainage from surface sources shall not contact or percolate through wastes during the life of the site.

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

5. The final cap system shall be maintained to promote lateral runoff and prevent ponding and infiltration of water.

6. The Discharger shall analyze samples from groundwater monitoring wells as outlined in the Detection Monitoring Program (DMP, Attachment A).

7. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of the attached and any future DMP issued by the Water Board's Executive Officer.

8. Landfill gases shall continue to be adequately vented or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.

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

10. The Water Board shall be notified immediately of any failure occurring in the waste management unit. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.

11. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.

12. The Discharger shall maintain the landfill so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.

13. 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.

14. At any time, the Discharger may file a written request (including supporting documentation) with the Executive Officer proposing modifications to the attached DMP. If the proposed modifications are acceptable, the Executive Officer may issue a letter of approval that incorporates the proposed revisions into the DMP.

C. PROVISIONS

1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications, and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including Water Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Water Board.

2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to CWC section 13267. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to CWC section 13268.

3. <u>Electronic Reporting Format</u>**:** All reports submitted pursuant to this Order must be submitted as electronic files in PDF format. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Water Board's office. Upon request by Water Board staff, monitoring results, including water level measurements, sample analytical results, coordinates, elevations, etc., shall be provided electronically in Microsoft Excel® or similar spreadsheet format. This format facilitates data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. Laboratory reports and/or field data sheets shall not be printed but included within the electronic PDF file to be emailed and uploaded to Geotracker. All electronic files, whether in PDF or spreadsheet format, shall be submitted via Geotracker and email. Email notification

should be provided to Water Board staff whenever a file is uploaded to the Water Board's Geotracker site.

WATER QUALITY IMPACTS AND LANDFILL MONITORING

4. MONITORING WELL INSTALLATION PROPOSAL

COMPLIANCE DATE: March 1, 2015

The Discharger shall submit a proposal and schedule to install groundwater monitoring wells within the landfill footprint, screened within the waste, for the purpose of monitoring groundwater quality as well as groundwater and/or leachate levels. The purpose of installing the wells will be to gain a better understanding of hydrologic conditions beneath the landfill footprint; to ensure that turf irrigation is not mobilizing potential contaminants within the waste; and that the irrigation system is not contributing to a rise in groundwater and/or leachate levels beneath the site.

5. WELL INSTALLATION REPORT

COMPLIANCE DATE: 45 days following completion of well installation activities

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all new wells installed.

6. FINAL DEVELOPMENT PLAN

COMPLIANCE DATE: 90 days following project completion

The Discharger shall submit a final development plan, acceptable to the Executive Officer, upon completion of the project. The plan shall include, but is not limited to, final as-built plans for the sidewalk, picnic, and landscaped areas, operations and maintenance systems, and irrigation systems.

7. SEMI-ANNUAL GROUNDWATER MONITORING REPORT

COMPLIANCE DATE: January 31 and July 31 of each year

The Discharger shall submit semi-annual groundwater monitoring reports acceptable to the Executive Officer, including groundwater levels, groundwater contour and isoconcentration maps, and laboratory analytical data, no later than January 31 and July 31 of each year in accordance with the attached Detection Monitoring Program (DMP, Attachment A). The monitoring frequency may be reduced in the future pending a significant amount of favorable analytical results.

8. ANNUAL OPERATIONS AND MAINTENANCE REPORT

COMPLIANCE DATE: July 31 of each year

The Discharger shall submit an Annual Operations and Maintenance Report, acceptable to the Executive Officer, by July 31 of each year in accordance with the DMP. The

annual report to the Water Board shall cover the previous calendar year as described in Part A of the DMP. In addition to the requirements outlined in Attachment A, this report shall also include the following: the location and operational condition of all groundwater monitoring wells and landfill gas monitoring systems, and landfill gas monitoring results. The report shall also include any details regarding repair and maintenance activities that need to be completed prior to the commencement of the next rainy season (starting October 15 of each year). This report shall also include a description and schedule for any repair and maintenance of the landfill gas trench and associated probes, the stormwater drainage system, and the irrigation system during the next twelve months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the DMP. This report may be combined with the semi-annual groundwater monitoring report.

9. POST-EARTHQUAKE INSPECTION AND CORRECTIVE ACTION REPORTS

COMPLIANCE DATE: Within 72 hours of the occurrence of an earthquake of Richter magnitude 6 or higher

The Discharger shall submit a technical report, acceptable to the Executive Officer, that describes implementation of the Post Earthquake Inspection and Corrective Action Plan for the landfill for any earthquake greater than Richter Magnitude 6 within 30 miles of the landfill. The report shall describe the results of the post earthquake inspection and any corrective actions necessary to insure landfill stability and prevent water quality impacts which may result from seismic events.

10. CHANGE IN SITE CONDITIONS

NOTIFICATION DUE DATE: Immediately upon occurrence
REPORTING DUE DATE: 30 days after initial notification

The Discharger shall immediately notify the Water Board of any flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, leachate leakage, or other change in site conditions that could impair the integrity of the landfill cap, and/or drainage control structures, and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

11. If any earthwork activities in association with the proposed site development uncover any missing SWAT program (1987 and 1989) wells (MW-1, MW-2, MW-5, and MW-6), they shall be properly destroyed in accordance with Santa Clara Valley Water District requirements. A report documenting the proper destruction shall be submitted to the Water Board within 30 days following the well destruction.

12. The Discharger shall maintain a copy of these WDRs, and these requirements shall be available to operating personnel at all times [CWC section 13263].

13. The Discharger shall permit the Water Board or its authorized representative, upon presentation of credentials:

a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.

b. Access to copy any records required under the terms and conditions of this Order.

c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this Order or by any other State agency.

d. Sampling of any discharge or groundwater governed by this Order.

14. Provided there is no material change in the operation of the site, this Order may be transferred to a new owner. The Discharger or new owner must request the transfer in writing and receive written approval from the Executive Officer. Such a request must be submitted to the Executive Officer at least 30 days prior to the transfer or ownership. The request must include a written agreement between the Discharger and the new owner containing a specific date for the transfer of this Order's responsibility and coverage between the Discharger and the new owner. This agreement shall include an acknowledgment that the Discharger is liable for violations up to the transfer date and that the new owner is liable from the transfer date on. [CWC sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Water Board, and the acknowledgment. The discharge of waste without WDRs is a violation of the CWC.

15. This Order is subject to Water Board review and updating, as necessary, to comply with changing State and federal laws, regulations, policies, or guidelines; changes in the Water Board's Basin Plan; or changes in the discharge characteristics [CWC section 13263]. The Executive Officer may specify minor changes to the DMP as necessary.

16. Where the Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge (ROWD) or submitted incorrect information in a ROWD or in any report to the Water Board, it shall promptly submit such facts or information [CWC sections 13260 and 13267].

17. 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 its liability under federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge [CWC section 13263(g)].

18. Provisions of these WDRs are severable. If any Provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

19. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with 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 facilities or similar systems only when necessary to achieve compliance with the conditions of this Order [CWC Section 13263(f)].

20. Except for a discharge that is in compliance with these WDRs, any person who, without regard to intent or negligence, causes or permits any Waste or hazardous substance 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 State's 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 Water 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 CWC section 13271 unless the Discharger is in violation of a prohibition in the Basin Plan [CWC section 13271(a)].

21. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided by phone or email 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 the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the initial report has been received within 24 hours [CWC sections 13263 and 13267].

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 10, 2014 .

Digitally signed by Bruce H. Wolfe
DN: cn=Bruce H. Wolfe, o=SWRCB, ou=Region 2, email=bwolfe@waterboards.ca.gov, c=US
Date: 2014.09.12 15:05:48 -07'00'

Bruce H. Wolfe
Executive Officer

Figures: Figure 1 – Site Location Map
Figure 2 – Landfill Site Map with Landfill Gas Probe Locations
Figure 3 – Proposed Site Development

Attachment: Attachment A – Detection Monitoring Program

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VICINITY MAP

MARTIN PARK
San Jose, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
991-21E

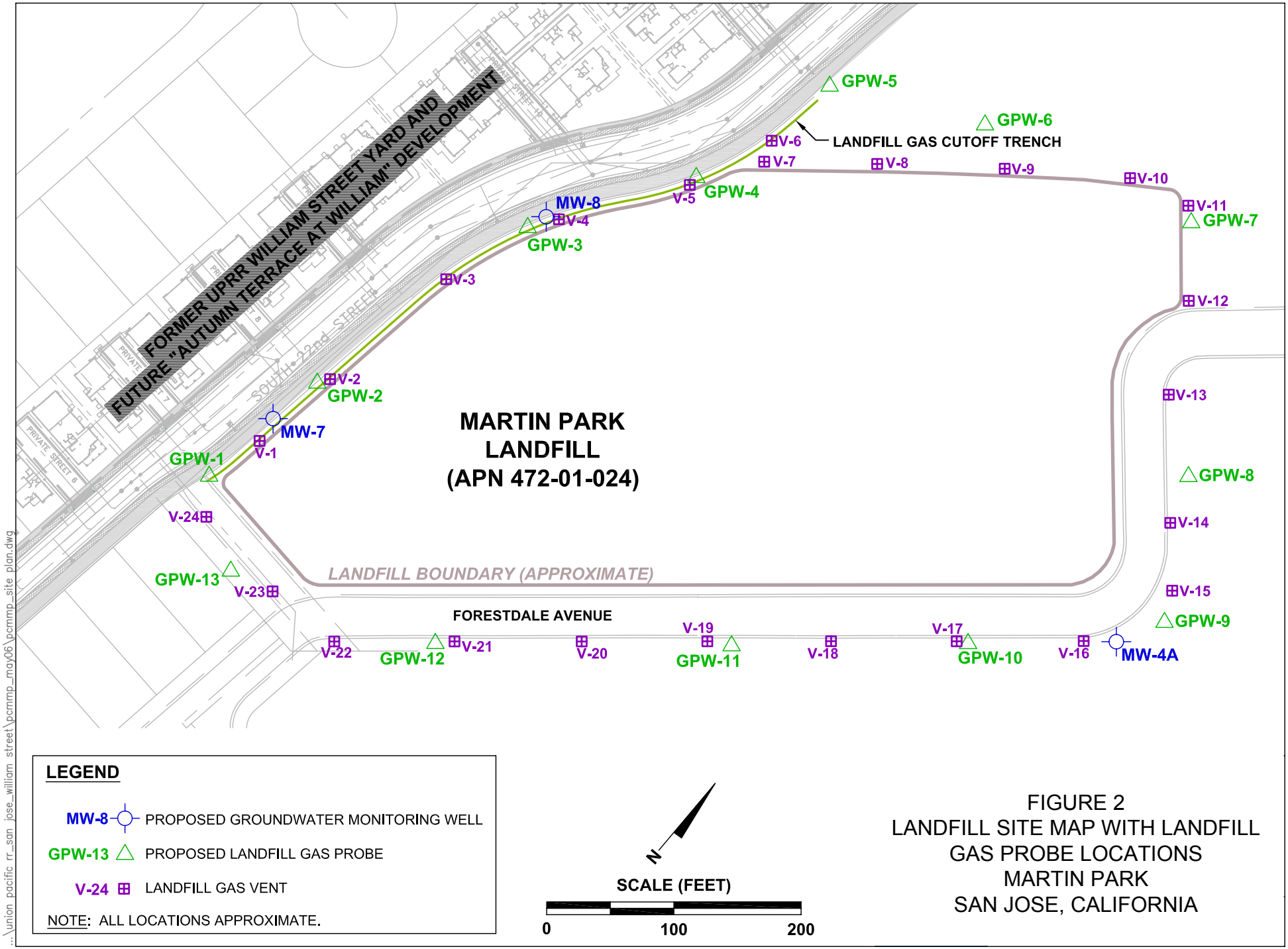

FIGURE 2
LANDFILL SITE MAP WITH LANDFILL GAS PROBE LOCATIONS
MARTIN PARK
SAN JOSE, CALIFORNIA

...\union pacific rr_san jose_william street\pcmmp_may06\pcmmp_site plan.dwg

FIGURE 3
PROPOSED SITE DEVELOPMENT
MARTIN PARK
SAN JOSE, CALIFORNIA

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DETECTION MONITORING PROGRAM

FOR

MARTIN PARK LANDFILL
SAN JOSE, SANTA CLARA COUNTY

ORDER NO. R2-2014-0033

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in section 13267(b) of the California Water Code. This Detection Monitoring Program is issued in accordance with title 27 of the California Code of Regulations (Title 27).

The principal purposes of a detection monitoring program are: (1) to document compliance with WDRs and prohibitions established by the Water Board, (2) to facilitate self-policing by dischargers in the prevention and abatement of pollution arising from waste discharges, (3) to develop or assist in the development of standards of performance and toxicity standards, and (4) to assist dischargers in complying with the requirements of Title 27.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of U.S. EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Water Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface waters that actually or potentially receive surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case, the groundwater beneath and adjacent to the landfill and the surface runoff from the site are considered receiving waters.

3. Standard observations refer to:

   a. Perimeter of the Landfill

      1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area, and flow rate. (Show affected area on map).
      2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
      3) Evidence of erosion and/or daylighted refuse.

   b. The Landfill

      1) Evidence of ponded water at any point on the waste management facility.

2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion, slope or ground movement, and/or daylighted refuse.
4) Integrity of access roads and/or sidewalks around and through the landfill.
5) Standard analyses and measurements are listed on Table 1 (attached).

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analyses, and observations in groundwater and leachate per the general requirements specified in section 20415(e) of Title 27.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Water Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed and name of the personnel performing the analyses.

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

5. Calculation of results.

6. Results of analyses and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE WATER BOARD

1. **Electronic Reporting Format**

All reports submitted pursuant to this Order must be submitted as electronic files in PDF format. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public during file reviews conducted at the Water Board's office. Upon request by Water Board staff, monitoring results, including water level measurements, sample analytical results, coordinates, elevations, etc., shall be provided electronically in Microsoft Excel® or similar spreadsheet format. This format facilitates data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. Laboratory reports and/or field data sheets shall not be printed but included within the electronic PDF file to be emailed and uploaded to Geotracker. All electronic files, whether in PDF or spreadsheet format, shall be submitted via Geotracker and

email. Email notification should be provided to Water Board staff whenever a file is uploaded to the Water Board's Geotracker site.

2. **Monitoring Reports**

Written groundwater monitoring reports shall be filed by January 31 and July 31 of each year. In addition, an annual operations and maintenance report shall be filed by July 31 of each year. The semi-annual groundwater monitoring report due on July 31 of each year can be combined with the annual report. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period and all actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

1) A graphic description of the direction of groundwater flow under/around the landfill based upon the past and present water level elevations and pertinent visual observations.

2) The method and time of water level measurement; the type of pump used for purging and sampling; pump placement in the well; the method of purging; pumping rate; the equipment and methods used to monitor field pH, temperature, and conductivity during purging; the calibration of the field equipment; results of the pH, temperature, conductivity, and turbidity testing; well recovery time; and method of disposing of the purge water.

3) A detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used; the date and time of sampling; the name and qualifications of the person actually taking the samples; and any other observations.

4) A written discussion of the groundwater analyses indicating any change in the quality or characteristics of the groundwater.

c. A comprehensive discussion of the compliance record and status, as well as any corrective actions taken or planned that may be needed to bring the Discharger into full compliance with the WDRs and Title 27.

d. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

e. Laboratory statements with the results of analyses specified in Part B must be included in each printed report on a CD. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory, and all reports of such work submitted to the Water Board shall be signed by a duly authorized representative of the laboratory.

   1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than U.S. EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

   2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment, and analytical detection limits; the recovery rates; an explanation for any recovery rate that are outside 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.

f. A summary and certification of completion of all standard observations and inspections of the waste management unit and the perimeter of the waste management unit.

g. The Annual Monitoring Report shall be submitted to the Water Board no later than July 31 covering the previous year. The Report shall include, but is not limited to, the following:

   1) A graphical presentation of the analytical data [Water Board-approved alternate procedure per Title 27, section 20415(e)(14)] for monitoring locations that have shown detectable concentrations during two consecutive monitoring events or greater than ten percent detection frequency for any organic compound. Graphical representation must be provided for monitoring locations with metals and general chemistry analytical parameters that have an increasing trend for three consecutive monitoring events;

   2) A tabular summary of all the monitoring data obtained during the previous year;

3) A comprehensive discussion of the compliance record, and the corrective actions taken or planned that may be needed to bring the Discharger into full compliance with the WDRs;

4) A written summary of the groundwater analyses indicating any change in the quality of the groundwater; and

5) An evaluation of the effectiveness of the leachate monitoring/control facilities (if present), which includes an evaluation of leachate buildup within the disposal units, a summary of leachate control volumes removed from the units, and a discussion of the leachate disposal methods utilized.

h. Tabular and graphical summaries of the monitoring data obtained during the previous year; the annual report should be accompanied by a compact disc in MS-EXCEL format, tabulating the year's data.

3. **Contingency Reporting**

A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Water Board within five days thereafter. This report shall contain the following information:

a. a map showing the location(s) of discharge, if any;
b. approximate flow rate;
c. nature of effects (i.e., all pertinent observations and analyses); and
d. corrective measures underway, proposed, or as specified in the WDRs.

4. **Well Logs**

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the California Department of Water Resources. These shall be submitted within 45 days after well installation.

G. WATER QUALITY PROTECTION STANDARDS

1. Constituents of Concern: The Constituents of Concern (COC) for groundwater are those listed in Table 1 of this Detection Monitoring Program.

2. Concentration Limits: Concentration Limits (CLs) for each COC are shown in Table 2. The CLs were set at the Maximum Contaminant Levels (MCLs) for drinking water where they have been established. CLs for those COCs that do not have established MCLs were set at the Water Board's Environmental Screening Levels (ESLs) for drinking water toxicity (Table F-3). The CLs are set at MCL drinking water standards and ESL drinking water toxicity levels and therefore are protective of human health and groundwater that may one day be used as a drinking water source.

3. Monitoring Points: Monitoring well MW-4 may be used as the background water quality monitoring location, since it is outside of the landfill footprint and has low to no COC detections to date. For those wells where COCs have been detected at concentrations greater than the CLs, monitoring will be conducted to demonstrate that the levels of COCs have either stabilized or are decreasing.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. GROUNDWATER MONITORING:

Semi-Annual Report: due January 31 and July 31 of each year

Groundwater levels shall be measured semi-annually using all available groundwater wells. Groundwater shall be sampled and analyzed according to the schedule specified in Table 1. Semi-annual samples are to be collected in the months of May and November. Concentration Limits for groundwater sampled from the monitoring wells are shown in Table 2.

B. SEEPAGE MONITORING:

The landfill perimeter shall be monitored semi-annually for seepage and the results reported as part of the groundwater monitoring report. Seepage monitoring stations include any point at which seepage is found occurring from the disposal area.

C. FACILITIES MONITORING:

Annual Report: due July 31 of each year

The Discharger shall inspect all facilities quarterly to ensure proper maintenance and report annually. The facilities to be monitored shall include, but not be limited to:

1. The turf, vegetated areas, and sidewalks for any cracking, swelling, or surface ponding of water
2. Perimeter landfill gas probes
3. Irrigation systems
4. Final cover system
5. All re-use areas

The Discharger shall provide photo documentation of conditions at locations that include, but are not limited to, the landfill facilities listed above. Locations from which photographs are taken should be permanent stations such that they can be used in successive reports.

Attachments: Tables 1-2

Table 1 - Groundwater Monitoring Points, Parameters and Sampling Frequency
Martin Park Landfill

Detection Monitoring Program

Analytical Parameters	Laboratory Method	Sampling Frequency
TPH-Gasoline, Diesel and Motor Oil	US EPA methods 8260 (GC/MS) and 8015B	Semi-annual (2nd and 4th Quarters)
General Water Quality Parameters: pH, Electrical Conductivity, Alkalinity, Total Dissolved Solids, Total Organic Carbon, Total Kjeldahl Nitrogen, Chloramines	various field and laboratory methods	Semi-annual (2nd and 4th Quarters)
Title 22 CAM 17 Metals [1]: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Chromium, Lead Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc	US EPA Method 6010B/7400	Semi-annual (2nd and 4th Quarters)

Table 2 - Concentration Limits for Groundwater
Martin Park Landfill

Constituent of Concern	Maximum Contaminant Level (MCL) (µg/L)	Environmental Screening Levels (ESLs)[1] (µg/L)	US EPA Test Method	Concentration Limits (µg/L)
TPH				
Gasoline		100	8260 (GC/MS)	ESL
Diesel		100	8015M	ESL
Motor Oil		100	8015M	ESL
CAM 17 Metals	(in mg/L)	(in mg/L)	6020	
Antimony	0.006			MCL
Arsenic	0.010			MCL
Barium	1.0			MCL
Beryllium	0.004			MCL*
Cadmium	0.005			MCL
Chromium	0.05			MCL
Cobalt		4.7		ESL
Copper	1.3			MCL
Lead	0.015			MCL
Mercury	0.002		1613	MCL
Molybdenum		78		ESL
Nickel	0.1			MCL
Selenium	0.05			MCL
Silver	0.10			MCL*
Thallium	0.002			MCL
Vanadium		5.0		ESL
Zinc	5.0			MCL*

[1] = Table F-1a, Groundwater as a potential source of drinking water (December 2013)
NE = Not Established
* = secondary MCL, for nuisance, odor, or taste