CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2012-0028

UPDATED WASTE DISCHARGE REQUIREMENTS AND
RECISSION OF ORDER NO. 95-088 FOR:

CLOSED WEST WINTON LANDFILL
CITY OF HAYWARD and
WASTE MANAGEMENT OF ALAMEDA COUNTY, INC.
HAYWARD, ALAMEDA COUNTY

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

DISCHARGERS AND LOCATION

1. The West Winton Landfill (the Landfill) is a closed San Francisco Bay-front landfill located at the western terminus of Winton Avenue in Hayward. The Landfill is an approximately 60-acre site bounded on the west by Triangle Marsh (owned by Hayward Areas Recreation and Park District), on the east by abandoned sludge drying beds and commercial properties, on the north by a small man-made marsh and slough adjacent to an Alameda Flood Control District flood control channel, and on the south by a flood control channel adjacent to additional marshes (Figure 1). The Landfill is maintained as recreational open space and is used as a public park as part of the East Bay Regional Park District's Hayward Regional Shoreline.

2. Waste Management of Alameda County (formerly Oakland Scavenger Company) owned and operated the Landfill during its active life from 1938 to 1974. Currently, the Landfill's waste is owned by Waste Management of Alameda County, while the encompassing land is owned by the City of Hayward, who acquired title in 1978. Perimeter trails are owned and maintained by the East Bay Regional Park District as part of its Regional Shoreline Trail system, which forms a portion of the Bay Trail system.

3. The City of Hayward and Waste Management of Alameda County (hereinafter referred to as the Dischargers) are responsible for compliance with this Order.

PURPOSE OF ORDER UPDATE

4. The primary objectives of this Order are to update the Dischargers' existing 1995 Waste Discharge Requirements (WDRs) to:
    a. Reflect changes in closed landfill regulations since 1995;
    b. Require an operations and maintenance plan; and
    c. Update the Landfill's Self-Monitoring Program.

LANDFILL DESCRIPTION AND HISTORY

5. **Dates of Operation and Closure**: Prior to development, the Landfill was a salt marsh located midway between San Lorenzo and Alameda creeks. The Landfill began accepting non-hazardous municipal solid waste (class-III) in 1938 and continued operations until 1974. The Landfill was formally closed in 1976 and is currently undergoing post-closure monitoring and maintenance.

6. **Landfill Construction**: The Landfill was constructed on the Bay margin by filling tidal mudflats. The Landfill is separated into two sections: the main portion, an approximately square shape in the western area of the property, and the "panhandle", a wedge extending east from the northeast corner of the main portion (see Figure 2).

7. **Waste Characterization**: During operation, the Landfill accepted municipal waste including non-hazardous residential, commercial, and industrial waste. Approximately 900,000-tons of waste were disposed of in the Landfill.

8. **Landfill Base Liner and Hydrogeology**: There is no engineered base liner at the Landfill. In keeping with practices at the time, wastes were disposed of directly on to San Francisco Bay Mud. The thickness of Bay Mud ranges from approximately six feet beneath the east end and twenty feet beneath the west end of the Landfill. The hydraulic conductivity of Bay Mud is reported to range between 10^{-4} and 10^{-8} cm/s, and thus it is considered to have low-permeability. Below the Bay Mud is an alluvial unit of unknown thickness.

   The Landfill is located within the San Lorenzo Cone Subarea of the East Bay Plain Groundwater Basin. Groundwater beneath the Landfill is shallow, between sea level and three feet above mean sea level. The gradient is variable, but often radiates outward from the center of the Landfill. This may be due to high head produced from the pressure of overlying waste or a result of continuous leachate extraction within the Landfill. Leachate is pumped via pipeline to the City of Hayward's Water Pollution Control Facility located one mile south of the Landfill. Leachate generation rates average 10,700 gallons per day (GPD) in the dry season and 11,300 GPD in the wet season.

9. **Landfill Final Cover**: The Landfill ceased operation in 1974 and was formally closed in 1976. A low permeability cap consisting of two or more feet of soil mixed with debris and red clay overlain by a one-foot vegetative layer was installed in 1988. In the fall of 2011, the City of Hayward completed a project on the main portion of the Landfill to regrade the cap and repair the dilapidated stormwater conveyance system for erosion control and minimization of stormwater infiltration through the cap.

10. **Landfill Perimeter Slopes:** The side slopes of the landfill perimeter were constructed of soil mixed with inert debris. Presumably, a cap of clean soil was placed over the debris to act as a vegetative layer during construction. However, rodent burrowing has daylighted the debris in some areas, especially the north slope of the Landfill adjacent to the slough and marsh (see Figure 3). Removing or capping the debris is not an option at the Landfill, because the area is potentially habitat for special status species, such as the salt marsh harvest mouse. Therefore, the Dischargers must diligently maintain vegetative cover in the

area to minimize erosion of debris and potentially contaminated soils into the slough and marsh. Provision 7 requires the Dischargers to develop and implement an Operations and Maintenance Plan, which must include maintenance of this area. Also, as part of the Self-Monitoring Program attached to this Order, the Dischargers are required to inspect the side slopes (perimeter levees) for exposed debris or other signs of erosion.

11. **Stormwater Drainage**: The final cover of the Landfill is graded to allow stormwater to sheet flow directly to the Bay or into drainage ditches which discharge to the Bay. Regular maintenance of this system is necessary to minimize infiltration of storm and irrigation water into the Landfill. Provision 7 requires the Dischargers to include stormwater preparations and maintenance in their Operations and Maintenance Plan.

12. **Leachate Extraction System:** The leachate extraction system (LES) was installed in 1993 to mitigate a leachate seep located on the west perimeter levee. The system operates continually, and there has been no indication of a leachate release (seep or groundwater or surface water impact), suggesting the LES is effective.

REGIONAL WATER BOARD ORDERS

13. On June 27, 1972, the Regional Water Board adopted WDRs Order No. 72-35, issued to the Oakland Scavenger Company and prescribing the first WDRs for the Landfill.

14. On June 10, 1976, the Regional Water Board issued Cleanup and Abatement Order No. 76-012 to the Oakland Scavenger Company, which required addressing leachate seeps and proper closure of the Landfill.

15. On November 21, 1978, the Regional Water Board adopted Order No.78-100, which prescribed closure requirements for the Landfill under the new owner, the City of Hayward.

16. On April 19, 1995, the Regional Water Board adopted updated WDRs Order No. 95-088 for the City of Hayward and Waste Management of Alameda County to document the integrity of the clay cap, to complete installation of the vegetative layer, to repair portions of the stormwater drainage control structures, to require enhanced erosion control and maintenance, and to update the Detection Monitoring Program.

GEOLOGICAL AND HYDROGEOLOGICAL SETTING

17. **Geology**: The Landfill sits on an alternating sequence of estuarine and alluvial deposits common to the East Bay Plain. The underlying unit is Younger Bay Mud, predominantly clays and silts, ranging from approximately 6 to 20 feet thick. The Younger Bay Mud overlies the Temescal Formation (silts and clays with some gravel layers) of unknown thickness. The Landfill is located in a seismically active zone. The Hayward Fault, located approximately four miles east, is the closest active fault.

18. **Hydrogeology**: The Landfill is located in the San Lorenzo Cone Subarea of the East Bay Plain groundwater sub-basin. The water-bearing zone beneath the Landfill is within Younger Bay Mud, with a hydraulic conductivity of approximately $5x10^{-6}$ cm/s. Groundwater is subtly influenced by the tides, the effect being dampened by the marsh

between the landfill perimeter and the Bay. Groundwater is shallow, fluctuating between approximately sea level and three feet above mean sea level. The groundwater gradient averages 0.0021 foot per foot in the wet season and 0.0018 foot per foot in the dry season.

Groundwater flow direction varies. During the wet season, head is the highest at the approximate center of the main portion of the Landfill, radiating outward in an approximate circular pattern. This is most likely due to the overburden pressure of the waste, which is likely at a maximum in this location, and lessens with distance, radiating toward the perimeter. During the dry season, groundwater typically flows from north or northwest to southeast. At times, groundwater is observed to flow toward the center of the Landfill, or from the south to the north. The variation in groundwater flow direction is most likely explained by seasonal changes and tidal influence, but it may also be influenced by pumping of leachate from within the Landfill.

19. **Groundwater**: Groundwater quality at the Landfill is inadequate for consumption given that average electrical conductivity is greater than 5,000 µS/cm. Groundwater used in the San Lorenzo Cone Subarea is generally pumped from the Alameda Formation at depths greater than 100 feet below ground surface. The closest municipal well is located approximately 2 miles east of the Landfill.

20. **Surface Water**: The Landfill is surrounded on three sides (north, west, and south) by marshes. A number of sloughs exist within these marshes, including one a few feet from the north toe of the Landfill, which was installed by the Hayward Area Recreation and Park District to create wildlife habitat. Less than 100 feet north of the slough is a flood control channel installed by the Alameda County Flood Control District. A typical diurnal high tide elevation for the Bay is approximately 0.25-ft. to 7.95-ft., relative to mean tide level per the National Oceanic and Atmospheric Administration tide for the east end of the San Mateo Bridge. Average rainfall is approximately 26.3 inches, occurring primarily between November and April.

MONITORING PROGRAMS

21. **Groundwater**: The 1995 Self-Monitoring Program (SMP), as amended by the Corrective Action Monitoring Program from January 1997, consisted of a combined detection monitoring and corrective action monitoring program. It required that the Dischargers monitor groundwater levels quarterly and chemistry semi-annually in seven perimeter wells (WW-1R. -2R, -5R, -6, 8, -9, and -10, see Figure 2). Monitoring Parameters (MPs, indicators of a release, monitored regularly) included volatile organic compounds (VOCs) and inorganics, such as ammonia and dissolved metals. Constituents of Concern (COCs, considered potential contaminants given the nature of the waste, monitored once every five-years) included two semi-volatile organic compounds and metals. In 2010, COCs were measured in groundwater, indicating no evidence that groundwater is impacted. Corrective action monitoring can be discontinued. Therefore, the SMP attached to this Order revises the monitoring program to focus on monitoring for detection of leaks from the Landfill.

22. **Leachate**: There are nine leachate monitoring piezometers (L-2, -7, -8, -10, -13, -14, -15, -16, and -19) used to monitor leachate levels and five leachate extraction wells (L-4, L-5, L-6, L-12, and L-16) (see Figure 2). Leachate is monitored by collecting a sample from the

discharge point at the sanitary sewer (leachate outfall). In 1997, a comprehensive chemical analysis of the leachate was performed at the Landfill to identify site-specific COCs. Leachate was analyzed for list of chemicals of potential concern from Appendix II of Part 258 of the Code of Federal Regulations. Concentrations of inorganics such as nitrogen species and salts were elevated, and low concentrations of some VOCs were identified. In 2010, leachate was monitored for the COC list. Results indicate that VOCs are no longer a primary component of the leachate. This is likely due to leachate extraction, conducted at the Landfill for eight years, as described in Finding 12. Nitrogen species are therefore the only remaining constituents in the leachate that are measurably different between leachate and groundwater and surface water, which can therefore be used to identify a leak.

The species of nitrogen present in leachate that poses a risk to the environment is ammonia. Other species are either not found in the leachate, are found in similar concentrations in groundwater and wetland surface waters, or would convert to a non-measurable species upon a non-catastrophic release. The list of MPs in the SMP attached to this Order was revised to reflect this.

23. **Surface Water**: Pursuant to Order No. 95-088, surface water samples have been collected within the marshes near the northwest corner (SW-01 and -02) at the confluence of the flood control channel and below the southwest corner of the panhandle (SW-03) (see Figure 2). These samples have been analyzed semi-annually for chemical oxygen demand (COD) and nitrogen species such as ammonia. Additionally, a fish bioassay has been performed semi-annually on the surface water samples. Every five years, these waters have been monitored for COCs, which has included MPs and metals. COD is a useful indicator of eutrophication caused by nutrient loading; however, it has limited usefulness given the natural variability, and often reducing conditions, present in the marshes. Bioassay results have been consistently good (100% survival at SW-1 over the last ten-years). As explained in Finding 22, ammonia is the measurable form of nitrogen that might indicate a release from the Landfill. For these reasons, COD, bioassays, and all nitrogen species except for ammonia have been removed from the analyte list in the SMP attached to this Order.

24. **Facilities**: The following facilities were inspected by the Dischargers quarterly:
    a. Leachate extraction system;
    b. Surface water monitoring points;
    c. Monitoring wells;
    d. Stormwater conveyance system; and
    e. Leachate monitoring wells.

BASIN PLAN AND BENEFICIAL USES

25. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and 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 Regional Water Board and approved by

the State Water Resources Control Board (State Water Board), U.S. EPA, and the Office of Administrative Law where required.

26. The existing beneficial uses of the receiving waters are:
    a. Of the Hayward wetlands (the marshes) (Basin Plan, Table 2-4):
        i. Estuarine habitat;
        ii. Fish spawning;
        iii. Wildlife habitat;
        iv. Water contact recreation; and
        v. Non-contact water recreation;
    b. Of the East Bay Plain Sub-Basin Groundwater (Basin Plan, Table 2-2):
        i. Industrial service supply;
        ii. Industrial process supply;
        iii. Agricultural water supply; and
        iv. Municipal and domestic water supply (however, due to the proximity of tidal marshes, groundwater at the Landfill contains elevated electrical conductivity levels that render the groundwater nonpotable).

CALIFORNIA ENVIRONMENTAL QUALITY ACT

27. This action is an Order pertaining to an existing facility. There is no expansion of use beyond that existing under prior orders. For these reasons, the project is exempt from the application of the California Environmental Quality Act pursuant to California Code of Regulations (CCR) title 14, section 15301.

NOTIFICATIONS AND MEETING

28. The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent to amend the Landfill's WDRs, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

29. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this amendment of WDRs.

IT IS HEREBY ORDERED pursuant to the authority in Section 13263 of the California Water Code and CCR titles 23 and 27, the Dischargers, their agents, successors, and assigns shall meet the applicable provisions contained in the Water Code and CCR titles 23 and 27 and shall comply with the following:

A. PROHIBITIONS

1. Untreated or inadequately treated groundwater or leachate shall not create a condition of pollution or nuisance, nor degrade the quality of waters of the State or of the United States.

2. No additional waste, with the exception of purge water from monitoring wells or litter receptacles for public park use, shall be deposited or stored at this Landfill.

3. Wastes shall not be disposed of in any position where they can migrate from the Landfill to adjacent geologic materials, waters of the State or of the United States during disposal operations, closure, and during the post-closure maintenance period.

4. Waste shall not be exposed.

5. Leachate, stormwater or groundwater containing leachate, or in contact with waste, shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.

6. Buildup or mounding of leachate levels within the Landfill, which adversely impacts waters of the State, is prohibited and shall be prevented by operation of a leachate extraction system.

7. The creation of any new waste management unit is prohibited.

8. The relocation of wastes is prohibited without prior Regional Water Board staff concurrence.

9. Excavation within or reconfiguration of any existing waste management unit is prohibited without prior concurrence of Regional Water Board staff. Minor excavation or reconfiguration activities, such as for installation of signs or landscaping, or for routine maintenance and repair do not require prior staff concurrence.

10. The Dischargers shall not disc the landfill cap. Alternate methods of controlling vegetative growth that do not affect the integrity of the landfill cap shall be utilized.

11. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes during the life of the Landfill.

12. The Dischargers 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 Regional Water Board staff approval.

13. The Dischargers, or any future owner or operator of the Landfill, shall not cause the following conditions to exist in waters of the State or of the United States at any place outside existing waste management units:

    a. <u>Surface Waters:</u>

        i. Floating, suspended, or deposited macroscopic particulate matter or foam;
        ii. Bottom deposits or aquatic growth;
        iii. Adverse changes in temperature, turbidity, or apparent color beyond natural background levels;
        iv. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or

v. Toxic or other deleterious substances to exist in concentrations or quantities that may cause deleterious effects on aquatic biota, wildlife, or waterfowl, or that render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

b. Groundwater:

i. Degradation of groundwater quality; or

ii. Significant migration of pollutants through subsurface transport.

B. SPECIFICATIONS

1. The Dischargers shall implement a Detection Monitoring Program (DMP), pursuant to CCR title 27, section 20420. The DMP shall be designed to identify any water quality impacts from the Landfill and demonstrate compliance with the Water Quality Protection Standard (WQPS), which is required pursuant to CCR title 27, section 20390. The SMP attached to this Order is intended to constitute the DMP for the Landfill.

2. The WQPS for the Landfill shall include the following:

a. Constituents of Concern: CCR title 27, section 20395, defines COCs as "all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit." Site-specific COCs were developed for this Landfill based on the chemicals identified in leachate. They are the monitoring parameters identified in the SMP attached to this Order, as well as VOCs and metals (see Table B-1) or any future COC added by the Regional Water Board.

b. Monitoring Parameters: MPs, a subset of the COCs, are typically the most mobile and commonly-detected COCs in groundwater at the Landfill and are measured on a more frequent basis than the COCs. Their purpose is to indicate whether a potential leak from the Landfill has occurred. The MPs shall include, at a minimum, all constituents identified as MPs in the SMP attached to this Order or any future MPs added by the Regional Water Board.

The MPs are chemicals identified in leachate at the Landfill in significantly greater concentrations than those found in groundwater and surface water. While low levels of VOCs and metals have been detected in leachate, concentrations are not appreciably different in groundwater or surface water. Therefore, VOCs and metals are not useful as indicator parameters. High concentrations of some salts have been identified in leachate, but salts are also elevated in the groundwater and surface water due to the tidal marshes surrounding the Landfill. The single parameter identified as capable of indicating a release from the Landfill was total ammonia, and therefore the MP list is limited to it and field parameters. The Dischargers may propose modification to the MPs as additional data become available concerning site-specific source characteristics and natural background water quality. However, modifications shall only be made upon written concurrence from the Executive Officer.

c. Concentration Limits: Concentration limits for all COCs detected at the specified monitoring wells are typically established using the background data set. However, use

of background data is inappropriate at the Landfill because background conditions are difficult to measure. Groundwater flow direction changes periodically due to tidal influence and potentially leachate extraction. Often, groundwater flows radially outward beneath the central portion of the Landfill from areas of highest piezometric head. Thus, there is no true up-gradient or side-gradient, and background concentrations would not function as intended by CCR title 27.

An alternative is identification of trends in concentrations over time using intrawell statistical analyses. Therefore, Sen's Slope Test will be run for total ammonia. It should be noted that the concentration of total ammonia in groundwater and surface water is naturally variable, necessitating a reduction in the sensitivity of the trend test (to minimize false positives) as well as the trigger for retesting. Therefore, the Sen's Slope Test at 99% confidence will be performed on total ammonia semi-annually in groundwater and surface water. Should an increasing trend be identified in either, in two out of three consecutive events, the Discharger will notify the Regional Water Board and retesting may be required.

While 95% confidence is more typical to detect small increasing trends and to enhance the power of the statistical test, 99% should be sufficient at the Landfill. The primary constituent of concern with the potential to impair beneficial uses is ammonia; however, the deleterious effects of ammonia are relatively minor (i.e., in comparison to more typical leachate constituents such as VOCs), and the adjacent marshes have some ability to assimilate ammonia. Therefore, a focus on larger trends is prudent. In addition, despite the 99% confidence limit applied, the statistical power of the Sen's Slope Test should be sufficient given the small number of tests required (power decreases with the number of tests, in this case seven wells and three surface water samples for one constituent).

d. Point of Compliance: Point of Compliance (POC) are the "vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit." The POC shall be the hydraulically downgradient perimeter of the waste fill area and therefore circumscribes the Landfill.

e. Monitoring Points: CCR title 27, section 20164, defines Monitoring Points as "a well, device, or location specified in the waste discharge requirements at which monitoring is conducted and at which the water quality protection standard . . . applies." Monitoring points for the Landfill, which are located along the POC and at additional locations, are specified in the SMP attached to this Order or may be added in future amendments thereto. The monitoring points for this Landfill include all groundwater monitoring wells specified in Table B-1 of the SMP and any future additions or replacements.

3. The Dischargers shall conduct monitoring activities according to the SMP, and as may be amended by the Executive Officer, to verify the effectiveness of the Landfill's systems for monitoring, containment, collection, treatment, and removal of groundwater, surface water, leachate, and landfill gas (to minimize the impairment of beneficial uses of water due to gas migration).

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

5. The Dischargers shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future SMP issued by the Executive Officer.

6. All samples shall be analyzed by State-certified laboratories, or laboratories accepted by the Regional Water Board, using approved U.S. EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Regional Water Board review. This specification does not apply to analyses that can only be reasonably performed onsite (e.g., pH).

7. The Dischargers may file a written request (including supporting documentation) with the Executive Officer proposing modifications to the attached SMP. If the proposed modifications are acceptable, the Executive Officer may issue a letter of approval that incorporates the proposed revisions into the SMP.

8. The Dischargers shall maintain the Landfill so as to prevent a measurably significant increase in water quality parameters at points of compliance.

9. Whenever there is “measurably significant” geochemical evidence of an exceedance of concentration limits or significant physical evidence of a release, the Dischargers shall be prepared to implement an Evaluation Monitoring Program (EMP) at the direction of the Regional Water Board. In such a case, the Dischargers shall continue implementing the DMP as prescribed in the SMP. If required, the EMP shall be implemented to determine the nature and extent of any release detected by the DMP.

10. All reports submitted pursuant to this Order shall be prepared under the supervision of and signed by appropriately licensed professionals, such as a California registered civil engineer, registered geologist, and/or certified engineering geologist, and acceptable to the Executive Officer.

11. The Dischargers shall notify the Regional Water Board immediately of any failure occurring in the Landfill. Any failure that threatens the integrity of containment or control features or structures at the Landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.

12. Final cover systems for waste management units shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.

13. The Landfill shall be protected from any washout or erosion of wastes from inundation, which could occur as a result of a l00-year, 24-hour storm event, or as the result of flooding with a return frequency of 100 years.

14. The Dischargers shall install new monitoring stations to replace any monitoring wells designated as monitoring stations that are destroyed or lost during landfill development or maintenance.

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

16. The Dischargers shall provide and maintain a minimum of two permanent, surveyed monuments near the Landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout operation, closure, and post-closure maintenance periods. These monuments shall be installed by a licensed land surveyor or registered civil engineer.

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

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

19. The Dischargers shall assure 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.

20. The Dischargers shall provide reasonable access to any property they own or lease at the Landfill to allow for installation, sampling, monitoring, etc., of all devices and equipment necessary for compliance with the requirements of this Order.

21. When there are multiple landowners or lease holders involved, the Dischargers shall provide reasonable access to any property they own or lease at the Landfill to allow for installation, sampling, monitoring, etc., of all devices and equipment necessary for compliance with the requirements of this Order.

22. The Dischargers shall comply with all applicable provisions of CCR title 27 that are not specifically referred to in this Order.

C. PROVISIONS

1. **Duty to Comply**: The Dischargers 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 Dischargers must also comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Regional Water 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 Water Board.

2. **Authority**: All technical and monitoring reports required by this Order are required pursuant to section 13267 of the California Water Code (CWC). Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Dischargers to enforcement action pursuant to CWC section 13268.

3. **Self-Monitoring Program**: The Dischargers shall implement and comply with the SMP attached to this Order and any revisions issued by the Executive Officer. The attached SMP is intended to constitute a DMP designed to identify significant water quality impacts from the Landfill and demonstrate compliance with the WQPS. The Dischargers shall submit semi-annual monitoring reports, acceptable to the Executive Officer, no later than **April 30 and October 31** of each year in accordance with the SMP. The April 30 report shall include an annual summary as described in the SMP. The Report shall include a section detailing repair and maintenance activities needed and performed prior to each rainy season.

COMPLIANCE DATE: Immediately upon adoption of this Order
REPORT DUE DATE: April 30 and October 31 of each year

4. **Report of Waste Discharge**: The Dischargers shall submit a technical report, acceptable to the Executive Officer, describing any proposed material change in the character, location, or volume of a discharge, or in the event of a proposed change in use or development of the Landfill. The technical report shall describe the project, identify key changes to the design that may impact any portion of the Landfill, and specify components of the design necessary to maintain the integrity of the Landfill cover and prevent water quality impacts. No material changes to any portion of the Landfill shall be made without approval by the Executive Officer.

COMPLIANCE DATE: 120 days prior to any proposed material change

5. **Construction-Related Stormwater Permit**: For any proposed grading or development project greater than one acre in size, the Dischargers shall submit a Notice of Intent to the State Water Board, submit a Storm Water Pollution Prevention Plan acceptable to the Executive Officer, and implement Best Management Practices for the control of stormwater in accordance with requirements specified in the State Water Board's General Permit for Storm Water Discharges Associated with Construction Activities (NPDES Permit No. CAS000001). The Dischargers will be deemed in compliance with this Provision if another party constructing improvements on property owned by the Dischargers, pursuant to an easement granted by the Dischargers, has obtained coverage under the General Permit.

COMPLIANCE DATE: 30 days prior to construction

6. **Well Installation or Destruction Report**: The Dischargers shall submit a technical report, acceptable to the Executive Officer, which provides well construction details, geologic boring logs, and well development logs for all new wells installed or destroyed as part of the DMP.

REPORT DUE DATE: 60 days following well installation or destruction

7. **Operations and Maintenance Plan**: The Dischargers shall submit an Operations and Maintenance Plan, acceptable to the Executive Officer, including:

   a. Specifications for wet season preparations; including for stormwater drainage infrastructure inspection, construction, and maintenance;

   b. The periodic assessment of stormwater, including monitoring; or demonstration that monitoring stormwater at the site is not necessary;

   c. The periodic inspection of the landfill cover, including subsidence or other disturbance that might increase infiltration of stormwater;

   d. The periodic assessment of rodent population control and any impacts that might threaten the landfill cover;

   e. The periodic assessment of the vegetative cover, especially in areas where exposed debris have been identified historically (north and west perimeter slopes);

   f. The periodic inspection of perimeter levees for failures that may cause erosion or any other condition that could threaten water quality, or expose debris or waste; and

   g. The periodic inspection and maintenance of the monitoring system and the leachate extraction system.

REPORT DUE DATE: July 31, 2012, and update biennially

8. **Long-Term Flood Protection Report**: The Dischargers shall submit a report, acceptable to the Executive Officer, for long-term flood protection of the Landfill. The report shall include a consideration of feasible options for achieving protection from a 100-year flood in the face of rising sea levels and increasing flood frequency and intensity. The report shall consider methods developed by the San Francisco Bay Conservation and Development Commission to predict and protect against future flooding. The report shall be updated every 5 years throughout the post-closure maintenance period of the Landfill, utilizing the most recently available and credible information at the time of the update.

REPORT DUE DATE: August 31, 2012, and update every five years thereafter

9. **Earthquake Inspection**: The Dischargers shall submit a detailed Post-Earthquake Inspection Report, acceptable to the Executive Officer, in the event of any earthquake generating ground shaking of Richter Magnitude 7 or greater, at or within 30 miles of the Landfill. The report shall describe the containment features, groundwater monitoring, and control facilities potentially impacted by seismic deformations of the Landfill. Damage to any waste containment facility that may impact waters of the State must be reported immediately to the Executive Officer.

COMPLIANCE DATE: Within 6 weeks of earthquake

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

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

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

12. **Change in Ownership**: The Dischargers 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. The notice must include a written agreement between the Dischargers and the new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the Dischargers and the new discharger. This agreement shall include an acknowledgment of which discharger is liable for violations up to the transfer date and which discharger is liable from the transfer date on.

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

14. **Revision**: This Order is subject to review and revision by the Regional Water Board.

15. **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 Dischargers from liability under federal, State or local laws, nor do they create a vested right for the Dischargers to continue the waste discharge.

16. **Severability**: Provisions of this Order are severable. If any provision of these WDRs is invalid, the remainder of these requirements shall not be affected.

17. **Operation and Maintenance**: The Dischargers 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 Dischargers 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.

18. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Dischargers shall report such discharge to the Regional Water Board by calling (510) 622-2369. A written report shall be mailed or submitted electronically to the Regional Water Board within 5 business days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

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

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

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

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

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

20. **Analytical Methods**: Unless otherwise permitted by the Regional Water Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Public Health. The Regional Water Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by U.S. EPA.

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

22. **Endangerment of Health or the Environment**: The Dischargers shall report any event of noncompliance that may endanger human health or the environment. Any such information shall be provided orally to the Executive Officer, or an authorized representative, within 24 hours from the time the Dischargers becomes aware of the circumstances by calling (510) 622-2369. A written submission to the Regional Water Board shall also be provided within 5 days of the time a Dischargers 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, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

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

    a. Regional Water Board and
    b. Alameda County Department of Environmental Health (Local Enforcement Agency).

    The Executive Officer may modify this distribution list as needed.

24. **Reporting Requirements**:

    a. Hardcopies:

    i. Technical reports/plans submitted by the Dischargers in compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be submitted to the Regional Water Board on the schedule specified herein. Hard copies of these reports/plans shall consist of a letter report that includes the following:

        a) Identification of any obstacles that may threaten compliance with the schedule;
        b) In the event of non-compliance with any Prohibition, Specification or Provision of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order;
        c) In the self-monitoring reports, an evaluation of the current groundwater monitoring system and a proposal for modifications as appropriate; and
        d) A signed transmittal letter and professional certification by a California licensed civil engineer or a professional geologist.

    ii. All application reports or information to be submitted to the Executive Officer shall be signed and certified as follows:

        a) For a corporation – by a principle executive officer or the level of vice-president or an appropriate delegate;
        b) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively; or
        c) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

b. Electronic Submittals:

i. The State Water Board has adopted regulations requiring electronic report and data submittal to Geotracker [http://www.geotracker.swrcb.ca.gov/]. The text of the regulations can be found at the following link: http://www.waterboards.ca.gov/ust/electronic_submittal/

ii. The Dischargers are responsible for submitting the following via the internet:

a) Groundwater analytical data;
b) Surveyed locations of monitoring wells;
c) Boring logs describing monitoring well construction;
d) Portable data format (PDF) copies of all reports identified in 24a. above (the document, in its entirety [signature pages, text, figures, tables, etc.] must be saved to a single PDF file); and
e) Any additional submittal to GeoTracker the Executive Officer requires.

iii. Upon request, monitoring results shall also be provided electronically in Microsoft Excel® to allow for ease of review of landfill data and to facilitate data computations and/or plotting that Regional Water Board staff may undertake during the review process. Data tables submitted in electronic spreadsheet format will not be included in the case of file review and should therefore be submitted on CD and included with the hard copy of the report. Electronic tables shall include the following information:

a) Well designations;
b) Well location coordinates (latitude and longitude);
c) Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, screen interval elevation, and a characterization of geology of subsurface the well is located in);
d) Groundwater depths and elevations (water levels);
e) Current analytical results by constituent of concern (including detection limits for each constituent);
f) Historical analytical results (including the past five years, unless otherwise requested); and
g) Measurement dates.

25. This Order supersedes and rescinds Order No. 95-088.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of and Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on April 11, 2012.

Digitally signed by Bruce Wolfe
Date: 2012.04.23 16:19:15 -07'00'

Bruce H. Wolfe
Executive Officer

Attachments:

Figure 1 - West Winton Landfill Location Map

Figure 2 - Site Plan

Figure 3 - Areas of Enhanced Vegetation Requirements

Figure 1. West Winton Landfill Location

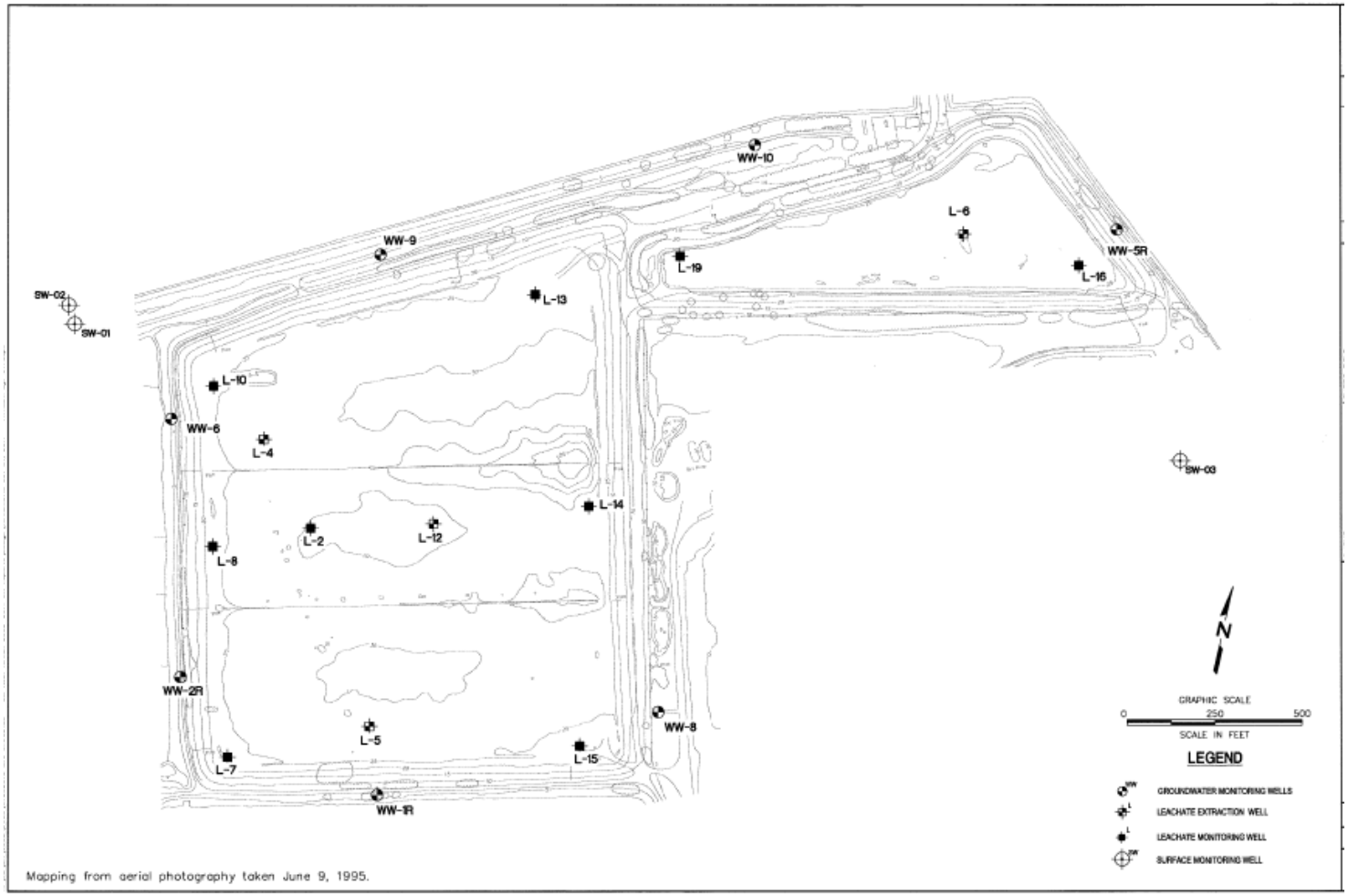

Figure 2. Site Plan

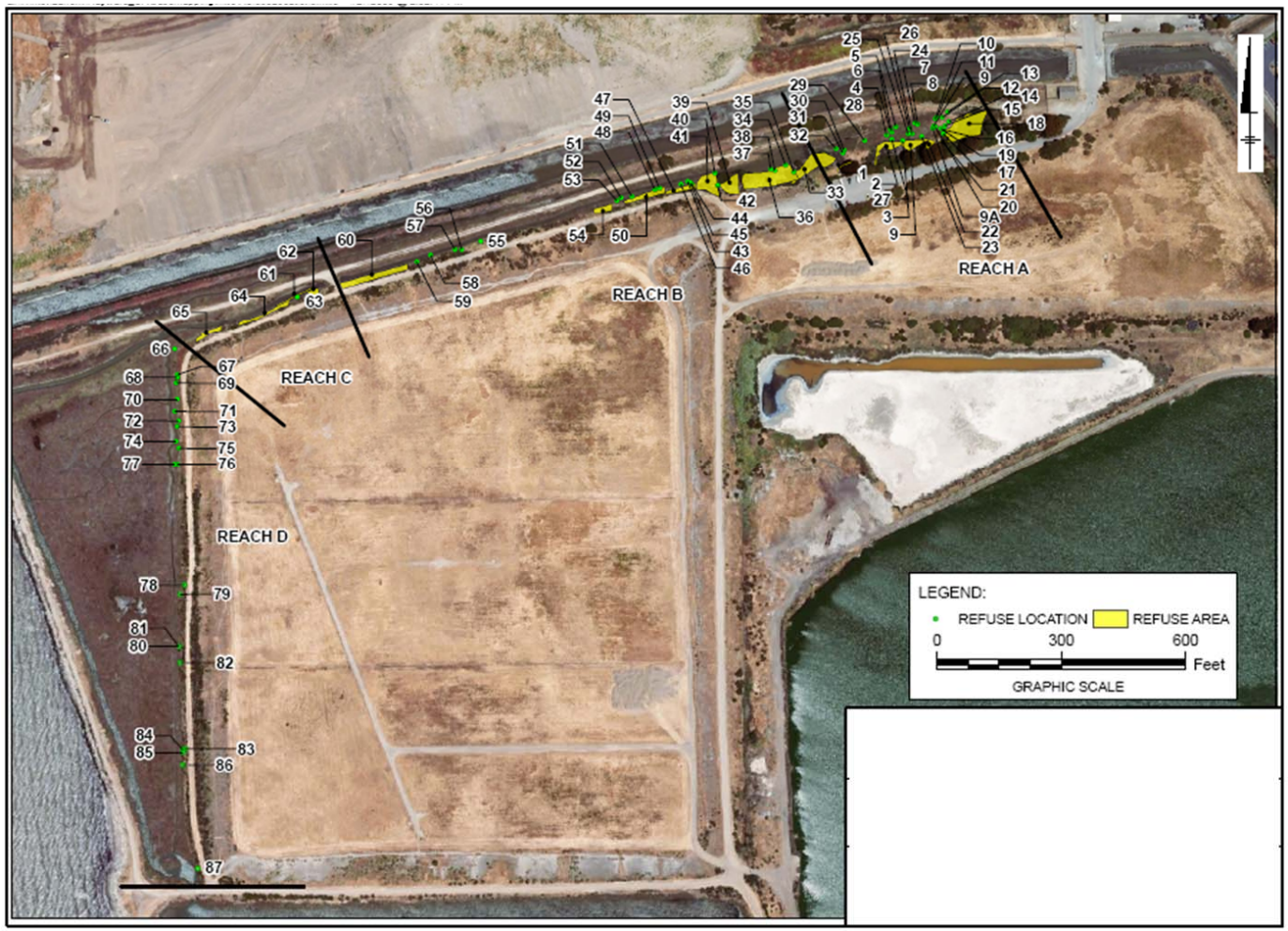

Figure 3. Areas of Enhanced Vegetation Requirements

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

CITY OF HAYWARD
AND
WASTE MANAGEMENT OF ALAMEDA COUNTY, INC.

WEST WINTON LANDFILL,
ALAMEDA COUNTY

ORDER NO. R2-2012-0028

CONSISTS OF

PART A

AND

PART B

PART A

This Self-Monitoring Program (SMP) specifies monitoring and reporting requirements, including:

a. General monitoring requirements for landfills and waste management units (Part A);
b. Self-monitoring report content and format (Part A);
c. Self-monitoring report submittal frequency and schedule (Part B);
d. Monitoring locations and frequency (Part B); and
e. Monitoring parameters and analytes (Part B).

A. AUTHORITY AND PURPOSE

For discharges of waste to land, water quality monitoring is required pursuant to the California Code of Regulations, title 27, sections 20380 through 20435 (title 27). The principal purposes of an SMP are: (1) to document compliance with waste discharge requirements (WDRs) and prohibitions established by the Regional Water Board; (2) to facilitate self-policing by waste dischargers in the prevention and abatement of pollution arising from the waste discharge; (3) to develop or assist in the development of effluent standards of performance and toxicity standards; and (4) to assist dischargers in complying with the requirements of title 27.

B. MONITORING REQUIREMENTS

Monitoring refers to the observation, inspection, measurement, and/or sampling of environmental media, the landfill containment and control facilities, and waste disposed in the Landfill. The following defines the types of monitoring that may be required.

Monitoring of Environmental Media

The Regional Water Board may require monitoring of groundwater, surface water, storm water, leachate, landfill gas, and any other environmental media that may pose a threat to water quality or provide an indication of a water quality threat at the Landfill.

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

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

“Receiving waters” refers to any surface water that actually or potentially receives surface or groundwater that passes over, through, or under waste materials or impacted soils. In this case, the groundwater beneath and adjacent to the Landfill and the surface runoff from the site are considered “receiving waters.”

Standard Observations

"Standard observations" refers to observations within the limits of the Landfill, at the landfill perimeter, and of the receiving waters. Standard observations to be performed and recorded include:

1. The Landfill:
    a. Evidence of ponded water on the Landfill, including a map of approximate locations, and an estimate of the size of the area affected and the volume of water;
    b. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source; and
    c. Evidence of erosion and/or daylighted waste, including a map of the approximate location and an assessment of the likelihood that soil or waste was discharged to the waters of the State.

2. Perimeter of the Landfill:
    a. Evidence of liquid leaving or entering the Landfill, estimated size of affected area and flow rate (show affected area on map);
    b. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source;
    c. Evidence of erosion and/or daylighted waste;
    d. Vegetation coverage, especially along the Landfill's north and west slopes where debris is exposed at the surface; and
    e. Measurement of groundwater elevations.

3. Receiving Waters:
    a. Floating and suspended materials of waste origin, including their presence or absence, source, and size of affected area;
    b. Discoloration and turbidity: description of color, source, and size of affected area;
    c. Evidence of odors, including presence or absence, characterization, source, and distance of travel from source;
    d. Evidence of beneficial use, such as presence of water associated with wildlife;
    e. Estimated flow rate; and
    f. Weather conditions, such as estimated wind direction and velocity, total precipitation.

Facilities Inspections

"Facilities inspections" refers to the inspection of all containment and control structures and devices associated with the Landfill. Containment and control facilities may include the following:

1. Final cover;
2. Stormwater management system elements such as perimeter drainage and diversion channels, ditches and down-chutes, and detention and sedimentation ponds or collection tanks;
3. Landfill gas system; and
4. Leachate extraction system elements such as leachate storage tanks, pumps and control equipment.

Quality Assurance/Quality Control Sample Monitoring

The Dischargers shall collect duplicate, field blank, equipment blank (if appropriate) and trip blank samples for each semiannual monitoring event at the following frequencies:

1. Duplicate sample – one sample per 20 regular samples;
2. Field blank – one per semiannual monitoring event;
3. Equipment blank – one sample per 10 monitoring stations; and
4. Trip blank – one sample per cooler.

C. REPORTING REQUIREMENTS

Reporting responsibilities of waste dischargers are specified in the Water Code sections 13260, 13267 subdivision (b), and13383 and this Regional Water Board's Resolution No.73-16 and Order No. 93-113. At a minimum, each Self-Monitoring Report (SMR) shall include the following information:

1. Transmittal Letter: A cover letter transmitting the essential points of the monitoring report shall be included with each monitoring report. The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall also certify the completion of all monitoring requirements. The letter shall be signed by the Dischargers' principal executive officer, or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

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

   a. Plan-view maps showing all monitoring and sampling locations, waste management units, containment and control structures, treatment facilities, surface water bodies, and site/property boundaries;
   b. Groundwater level/piezometric surface contour maps for each groundwater-bearing zone of interest showing inferred groundwater gradients and flow directions under/around the Landfill based upon the past and present water level elevations and pertinent visual observations; and
   c. Any other maps, figures, photographs, cross-sections, graphs, and charts necessary to visually demonstrate the appropriateness and effectiveness of sampling, monitoring, characterization, investigation, or remediation activities relative to the goals of this SMP.

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

   a. Well designation;
   b. Well location coordinates (latitude and longitude);
   c. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation);
   d. Groundwater depths;
   e. Groundwater elevations;
   f. Current analytical results (including analytical method and detection limits for each constituent);

g. Historical analytical results (including at least the past five years unless otherwise requested); and
h. Measurement dates.

4. Compliance Evaluation Summary and Discussion:

   a. A summary and certification of completion of all environmental media monitoring, standard observations, and facilities inspections;
   b. The signature of the laboratory director or his/her designee indicating that he/she has supervised all analytical work in his/her laboratory; and
   c. A discussion of the field and laboratory results that includes the following information:

      i. Data interpretations;
      ii. Conclusions;
      iii. Recommendations;
      iv. Newly implemented or planned investigations and remedial measures;
      v. Data anomalies;
      vi. Variations from protocols;
      vii. Condition of wells; and
      viii. Effectiveness of leachate monitoring and control facilities.

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

   a. New boring and well logs;
   b. Method and time of water level measurements;
   c. Purging methods and results, including:

      i. The type of pump used, pump placement in the well, and pumping rate;
      ii. The equipment and methods used to monitor field pH, temperature, and electrical conductivity;
      iii. The calibration of the field equipment used to measure pH; temperature, conductivity, and turbidity; and
      iv. The method of disposing of the purge water.

   d. Sampling procedures, field, equipment, and travel blanks, number and description of duplicate samples, type of sample containers and preservatives used, the date and time of sampling, the name of the person actually taking the samples, and any other relevant observations; and
   e. Documentation of laboratory results, analytical methods, detection limits (DLs) and reporting limits (RLs), and Quality Assurance/Quality Control (QA/QC) procedures for the required sampling.

D. CONTINGENCY REPORTING

1. The Dischargers shall report to the Regional Water Board by telephone (510-622-2369) any measurably significant discharge from the Landfill immediately after it is discovered. The Dischargers shall submit a written report with the Regional Water Board within five days of discovery of any discharge. The written report shall contain the following information:

   a. A map showing the location(s) of discharge;
   b. Approximate flow rate;
   c. Nature of effects (e.g., all pertinent observations and analyses); and
   d. Corrective measures underway or proposed.

2. The Dischargers shall submit a written report to the Regional Water Board within seven days of determining that a statistically significant difference occurred between a SMP sample set and an approved Water Quality Protection Standard (WQPS). The written report shall indicate which WQPS(s) has been exceeded. If appropriate, within 30 days the Dischargers shall resample at the compliance point(s) where this difference occurred.

3. If re-sampling and analysis confirms the earlier finding of a statistically significant difference between SMP results and WQPS(s), the Dischargers shall, upon determination by the Executive Officer, submit to the Regional Water Board an amended Report of Waste Discharge (ROWD) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of CCR title 27, section 20425.

E. REPORTING REQUIREMENTS

The Dischargers shall submit SMRs to Regional Water Board staff in accordance with the schedule indicated in Table B-1. Reports due at the same time maybe combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable. Reports shall be submitted in accordance with Provision 3 in the WDRs.

F. MAINTENANCE OF WRITTEN RECORDS

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

PART B

A. MONITORING LOCATIONS AND FREQUENCY

Monitoring locations, frequencies, parameters, and analytes are specified in Table B-1 of this SMP and as indicated below. Monitoring locations are shown in Figure 2.

1. **Environmental Media**

   a. Groundwater: Groundwater shall be monitored at the locations specified in Table B-1 and shown on Figure 2. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.
   b. Leachate: Leachate shall be monitored at the locations specified in Table B-1 and shown on Figure 2. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.
   c. Stormwater: As outlined in the Operations and Maintenance Plan (Provision 7).

2. **Standard Observations**

   Standard observations (described in Part A) shall be made within the Landfill, along the perimeter of the Landfill, and of the water courses and receiving waters beyond their limits. Standard observations shall be conducted at the frequency specified in Table B-1.

3. **Facilities Inspections**

   The Dischargers shall inspect all containment and control structures and devices associated with the Landfill to ensure proper and safe operation.

4. **Quality Assurance/Quality Control Samples**

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

B. REPORTING SCHEDULE

The Dischargers shall submit SMRs to Regional Water Board staff in accordance with the schedule indicated in Table B-1. Reports due at the same time maybe combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable.

Attachment: Self-Monitoring Program Table B-1

Groundwater (POC) Wells: WW-1R, WW-2R, WW-5R, WW-6, WW-8, WW-9, and WW-10 **Leachate Outfall:** Extracting from L-4, L-5, L-6, L-12, and L-15 **and** **Surface water Monitoring Points:** SW-1, SW-2, and SW-3		
Monitoring Event	**Frequency**	**Parameters**
Constituents of Concern	**Once every five years** beginning 2015 (Report due with 1st Semi-Annual report for 2016)	**Monitoring Parameters and Volatile Organic Compounds Metals** **Total Petroleum Hydrocarbons** – gasoline range (TPH-g), diesel range (TPH-d), and motor oil range (TPG-mo) with silica-gel cleanup
Monitoring Parameters	**Semi-Annually** 1st Semi-Annual Sampling event - February REPORT DUE April 30 2nd Semi-Annual Sampling event – August REPORT DUE October 31	**Total Ammonia** **Field Parameters** – pH, electrical conductivity, temperature, turbidity, and dissolved oxygen
Groundwater and Leachate Levels (Extraction wells and L-2, L-7, L-8, L-10, L-13, L-16, and L-19)	**Quarterly**	**As detailed in Part A**
Standard Observations	**Quarterly**	**As detailed in Part A**

Table B-1: Self-Monitoring Program