# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER No. R2-2022-xxxx

**UPDATED WASTE DISCHARGE REQUIREMENTS and RESCISSION OF ORDER No. 01-029 for:** 

AMERICA CENTER MAINTENANCE ASSOCIATION AMERICA CENTER I & II OWNER, LLC US ER AMERICA CENTER 3, LLC US ER AMERICA CENTER 4, LLC ELEVATE SANTA CLARA HOTEL, LLC

HIGHWAY 237 LANDFILL SAN JOSE, SANTA CLARA COUNTY

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

#### DISCHARGERS AND LOCATION

- 1. This Order regulates proposed discharges from and prescribes waste discharge requirements for the closed Class III Highway 237 Landfill (Landfill) in San Jose, California. The area referred to as "the Landfill" includes the approximately 38-acre America Center commercial business campus and the surrounding undeveloped 25-acre Open Space Preserve, which collectively compose 63 landfilled acres. The closed solid waste landfill is owned and maintained by several entities, each owning a distinct parcel. The owners are the America Center Maintenance Association (Open Space Area); America Center I & II Owner LLC (Parcels A and D); US ER America Center 4, LLC (Parcel B); US ER America Center 3, LLC (Parcel C); and Elevate Santa Clara Hotel, LLC (Hotel Property). These entities are collectively hereinafter referred to as the Discharger.
- 2. The Landfill received waste from 1962 to 1982. Located in the Alviso area of San Jose, at the intersection of Highway 237 and Gold Street, the Landfill is bordered by commercial areas to the east and south, San Tomas Aquino Creek to the south and west, and by marshlands and salt evaporation ponds to the west and north, as shown in Figure 1.

#### PURPOSE OF ORDER UPDATE

- 3. The primary objectives of this Order are to:
  - a. Update the Waste Discharge Requirements (WDRs) to reflect the current post-closure land use (commercial development), changes in ownership, the results of groundwater monitoring program data and other monitoring events, and upgrades made to the Landfill cover and gas collection system;

- b. Specify groundwater monitoring requirements consistent with Title 27, Division 2 of the California Code of Regulations (CCR);
- Require the Discharger to develop a strategy for the long-term protection of the Landfill from flooding and inundation due to sea level rise and extreme climate/weather events; and
- d. Rescind Order No. 01-029, the previous WDRs for the Landfill, to reflect the current developed state of the Landfill.

#### REGULATORY HISTORY

4. The Water Board regulates the landfill under the authority of Title 27 CCR, Division 2, which prescribes requirements for the disposal of waste to land. In 1973, the Board adopted Order No. 73-22, which prescribed WDRs for the Landfill. The WDRs were revised in 1979 (Order No. 79-160) and again in 1988 (Order No. 88-059). These orders established tasks necessary to characterize and contain landfill waste materials and to identify, monitor, and prevent water quality impacts. The WDRs were last updated in 2001 (Order No. 01-029) to reflect the prior Landfill owner's proposal for development on top of the Landfill and to ensure site development does not impair waste containment or water quality.

#### LANDFILL OPERATION AND OWNERSHIP HISTORY

5. **Dates of Operation**: Landfilling at this parcel began in 1962 and operated continuously until 1982. The Landfill was covered with an interim soil cover in the 1980s. In the early 1990s a final soil cover was installed on a portion of the northwestern slope of the Landfill. In October 2000, the regrading of the Landfill began, along with installation of the final cap over the remainder of the Landfill in preparation for landfill closure. Landfill closure construction activities were completed in March 2002; certification of the landfill closure work was provided on May 22, 2002 and approved by the Water Board on September 18, 2002.

# 6. Ownership History:

- a. The site was originally operated as a landfill by the Marshland Development Company (Hoxie Enterprises). The dischargers regulated under Order No. 88-059 were The Leslie Salt Company and Marshland Development Company.
- b. On September 1, 1991, The Leslie Salt Company became known as Cargill Salt, Inc. Cargill Salt, Inc, transferred ownership of the site to WCSJ LLC on October 11, 2000.
- c. As the sole owner of the Landfill, WCSJ LLC was the discharger regulated under WDR Order No.01-029. In December 2007, WCSJ LLC transferred title for the Highway 237 Landfill property to the following three entities: (1) America Center Maintenance Association; (2) Legacy III SJ America Center I, LLC; and (3) Legacy III SJ America Center II, LLC.
- d. In December 2008, Legacy III SJ America Center II, LLC transferred portions of its property to the America Center Maintenance Association and to CalTex Hospitality, Inc.
- e. In December 2013, the remaining Legacy III SJ America Center I, LLC property titles

were transferred to four new ownership entities US ER America Center 1, LLC, US ER America Center 2, LLC, US ER America Center 3, LLC and US ER America Center 4, LLC. In May 2021, CalTex Hospitality Inc. transferred ownership of the Lot Five Hotel property to Elevate Santa Clara Hotel, LLC. In August 2021, US ER America Center 1, LLC and US ER America Center 2, LLC transferred ownership, respectively, of Parcels A and B to the current owners, America Center I & II Owner, LLC.

#### GEOLOGICAL AND HYDROGEOLOGICAL SETTING

- 7. Geology: The Landfill is located within the Coast Ranges geomorphic province along the southeast side of San Francisco Bay. The Bay is flanked on the west by the Santa Cruz Mountains and on the east by the Diablo Range. At lower elevations within the Bay area, such as the location of the Landfill, the well-consolidated Mesozoic rocks that crop out in the Santa Cruz Mountains and the Diablo Range have been buried under thick deposits of younger alluvium that interfinger with marine Bay deposits. Within the Mountain View area, the alluvial deposits are divided into the lower Plio-Pleistocene Santa Clara Formation and Quaternary fluvial and interfluvial deposits.
- 8. **Local Seismic Setting:** The Landfill is located in a seismically active area approximately midway between three major northwest-trending faults that lie on either side of the Bay: the San Andreas Fault to the west, and the Hayward and Calaveras Faults to the east. Tectonic activity along these faults and associated down-warping of the area between them, are responsible for the formation of the Bay. The site lies approximately 12 miles northeast of the San Andreas fault, 8 miles southwest of the Hayward fault, and 9 miles southwest of the Calaveras fault.
- 9. Hydrogeology: The site is located at the northern end of the Santa Clara Valley in the Niles Cone Groundwater Basin. The alluvial fill of the Santa Clara Valley is composed of a heterogeneous mixture of gravel, sand, silt, and clay. Gravel and sand were deposited in meandering stream channels draining into the San Francisco Bay. These coarser deposits are the primary aquifers or water-producing zones in the San Jose area. These aquifers are interspersed within thick clay layers deposited by bay waters. Regionally, these channel deposits are grouped into upper and lower aquifer zones. Near the Bay, these aquifers are separated from each other by an extensive clay aquitard. The Upper Aquifer Zone generally extends to depths of 150 feet, while the Lower Aquifer Zone generally occurs below this depth. The Upper Aquifer Zone along the bay margin in the vicinity of the site has been extensively impacted by saltwater intrusion.

Groundwater is first encountered at shallow depth (approximately at mean sea level) in site borings. Groundwater has been found to occur within fine sand and silt layers at depths less than ten feet below ground surface. Greater quantities of groundwater are found in thicker sand layers at depths more than ten feet below ground surface. Tidal fluctuations have been measured in wells at the site, indicating that groundwater at the Landfill is in hydraulic connection with the San Francisco Bay.

The primary sources of recharge to the shallow groundwater units are through direct infiltration of on-site precipitation in upgradient areas, and tidal seepage from the Bay.

Runoff from the Landfill is channeled to drainage structures to the north and east, to San Tomas Aquino Creek to the southwest, to the Caltrans right-of-way along Highway 237 to the south, to salt evaporation ponds to the west, and to the Guadalupe River to the north.

- 10. Two hydrostratigraphic intervals within the Upper Aquifer Zone—the shallow groundwater zone and the "minus-30-foot sand"—are monitored at the site:
  - a. The shallow groundwater zone occurs in fill materials (refuse fill, undocumented fill, and levee fill) and native materials beneath and in the vicinity of the Site. Clays and silts within the shallow groundwater zone act as an aquitard between the shallow zone and the minus-30-foot sand. Although the shallow groundwater zone is not considered an aquifer, there are saturated fill zones and native sand lenses in the shallow groundwater zone locally that may function as potential pathways for a release from the Landfill. The shallow groundwater zone intersects the base of the Landfill.
  - b. The minus-30-foot-sand is the first continuous and laterally extensive sand zone beneath the Site and represents the uppermost aquifer beneath the Site. The sand unit thins to the south and appears to pinch out under portions of the Site, but there are two channels where the sand unit extends south of the Site.
- 11. Ambient Groundwater Quality: Shallow groundwater at the Landfill is not used as a source of drinking water given its immediate proximity to the San Francisco Bay and the effects of saltwater mixing and intrusion. The natural electrical conductivity of the groundwater typically ranges from 4,000 to over 40,000 microsiemens per centimeter (μS/cm). Groundwater in the vicinity of the Landfill is tidally influenced and the chemistry resembles brackish water typically observed along the San Francisco Bay margins.

#### 12. Surface Water Bodies and Sea Level Rise:

Surface water bodies in the vicinity of the Landfill include the tidally controlled flood control channel San Tomas Aquino Creek, and the Guadalupe River, as well as a salt evaporation pond to the north. A levee had been constructed and maintained to protect the Landfill from flooding and erosion.

The Landfill and the low-lying land around it are vulnerable to the effects of sea level rise, which could impact water quality. Therefore, Provision 7 of this Order requires the Discharger to perform a Long-Term Flood Protection Report that assesses the Landfill's vulnerability to expected sea level rise in 2022 and every five years thereafter.

### CONSTRUCTION AND CLOSURE

13. **Landfill Construction**: The Landfill was constructed without any engineered bottom liner, as none was required by regulations in effect at that time. Waste materials were deposited directly onto the tidal marshlands. Fill was placed beyond the actual boundaries of the Landfill into the Caltrans right-of-way along Highway 237, and into Santa Clara Valley Water District property along the San Tomas Aquino Creek levee.

14. Final Cover Construction: The Landfill was covered with an interim soil cover in the 1980's. A final soil cover was installed on a portion of the northwestern slope of the Landfill in the early 1990's. Final closure activities began in October 2000, managed by Legacy Partners, Inc., on behalf of WCSJ, LLC, including excavation and relocation of Landfill materials onsite and construction of the final Landfill soil cap. Waste materials excavated during closure activities were relocated to two raised landfill areas on the northern portion of the site.

Ultimately, a minimum 4-foot thick final cover was placed over the entire Landfill. The completed final cover consists of a two-foot-thick foundation layer of compacted soil material, a one-foot-thick layer of compacted low-permeability soil, and a one-foot-thick layer of compacted vegetative soil. In the area that was later developed, up to four additional feet of general fill were placed on top of the final cover to construct building pads and accommodate construction of utility trenches above the landfill cap. Landfill closure activities were completed in March 2002. A Title 27 Landfill Closure Statement was recorded on the deed on September 4, 2007.

- 15. **Stormwater Drainage and Permit Requirements**: Surface drainage facilities for the Landfill were installed during final landfill closure construction. A low berm was constructed along the edge of the plateau area at the crest of the Landfill slopes, which collects and channels storm water runoff towards drainage inlets. A separate system of surface drainage facilities has been installed for the commercial business development areas, which discharges storm water to storm water pump stations located near San Tomas Aquino Creek and the Guadalupe River.
- 16. Landfill Gas Collection and Removal System: The Landfill gas control system installed in the America Center office buildings includes a gas barrier membrane located immediately beneath the building slab, a passive (wind-assisted) gas collection and venting system, an active (vacuum blower-assisted) gas collection system designed to be used as an additive system, and a methane gas monitoring system. The passive and active systems are comprised of horizontal perforated pipes in a network of gravel-filled trenches below the building slab that are connected to the roof and two wind turbines (passive) or vacuum blower (active).
- 17. **Operation and Maintenance Plan**: In August of 2000 EMCON/OWT Solid Waste Services, on behalf of Legacy Partners Commercial, Inc, submitted a revised Post-closure Land Use Proposal (PLUP) document to reflect the City of San Jose's approval to change the land use designation of the Landfill site from Private Recreation to Combined Industrial/Commercial. Included within the PLUP was an updated post-closure maintenance program. This program details site operations and clarifies responsibilities for:
  - Drainage system inspections and maintenance program;
  - Vegetative cover inspections and maintenance program;
  - Groundwater monitoring system inspections and maintenance program;
  - Leachate monitoring system inspections and maintenance program;
  - Landfill gas control system inspections and maintenance program.

#### POST-CLOSURE LAND USE

18. The closed Landfill is currently a mixture of 25.3 acres of open space preserve area and 38.3 acres developed as a commercial business campus called America Center. Construction of the commercial buildings was completed in separate phases, spanning from 2002 until 2019, and now comprises four six-story office buildings, adjacent surface parking, a four-level parking garage, and a hotel. Phase I, completed in 2009, includes two six-story office buildings and adjacent surface parking. Phase II activities, which includes two six-story office buildings, an amenity building, and a four-level parking garage, was completed in 2019. The Aloft hotel, built in a separate construction phase, was completed in 2015.

The open space preserve comprises the northern portion and side-slope areas of the Landfill and has been set aside for environmental and educational purposes.

#### MONITORING PROGRAMS

19. The Self-Monitoring Program (SMP) attached to this Order revises the groundwater monitoring program that was required by WDR Order No. 01-029. The groundwater monitoring network at the Highway 237 Landfill includes 13 groundwater monitoring wells, 12 piezometers, and 4 leachate monitoring wells (Figure 2). Groundwater elevations are currently monitored at each of the piezometers, groundwater monitoring wells, and leachate wells.

Groundwater samples obtained from monitoring wells are analyzed for field parameters (pH, specific conductance, water level, etc.), site-specific detection monitoring parameters (VOCs, MTBE, barium, chemical oxygen demand, and ammonia as nitrogen), and constituents of concern (Subtitle D Appendix II constituents), and Per- and Polyfluorinated Alkyl Substances (PFAS). See Table B-1 in attached SMP.

Groundwater monitoring performed at the Landfill has identified the sporadic occurrence of trace to measurably significant concentrations of trichloroethene in one monitoring well, G-15. These VOC detections may be associated with the Landfill or may reflect TCE from an upgradient source. Per-and polyfluoroalkyl substances (PFAS), especially PFBA, PFHxA, PFPeA and PFOA, were detected in leachate inside the Landfill in well LR-5R. PFAS compounds (especially PFBA) were also detected at low concentrations in groundwater in the immediate vicinity of the Landfill in monitoring wells G-13, G-15, and G-17.

#### FINANCIAL ASSURANCE

20. The Discharger provides documentation every five years that adequate Financial Assurances exist for post-closure maintenance, potential water-related and non-water-related corrective action in accordance with title 27 CCR Division 2, Subdivision 1, Chapter 6.

# ANTIDEGRADATION POLICY

21. The State Water Board established California's antidegradation policy through State Water Board Resolution 68-16, which requires that existing high water quality be maintained unless degradation is justified based on specific findings. This order will not result in lower water quality and complies with the antidegradation policy. It requires existing water quality in the vicinity of the Landfill to be maintained; directs the continued operation of the groundwater and landfill gas containment systems and maintenance of the Landfill cap; and requires verification that degradation has not occurred through regular monitoring and inspections.

#### **BASIN PLAN**

22. 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.

#### BENEFICIAL USES AND SOURCES OF DRINKING WATER

- 23. The beneficial uses of South San Francisco Bay, San Tomas Aquino Creek, Guadalupe River and contiguous waters are as follows:
  - a. Wildlife Habitat Navigation
  - b. Groundwater Recharge
  - c. Cold Freshwater Habitat
  - d. Fish Spawning
  - e. Warm Freshwater Habitat
  - f. Water contact recreation
  - g. Preservation of rare and endangered species
  - h. Water contact recreation
  - i. Non-contact water recreation
  - j. Commercial and sport fishing
  - k. Estuarine habitat
  - I. Fish migration

State Water Board Resolution 88-63 and Regional Board Resolution No. 89-39, both entitled "Sources of Drinking Water," define potential sources of drinking water to include all groundwater, with limited exceptions for areas containing high total dissolved solids (TDS), high background contaminant levels, or those areas with a low well yield. The groundwater immediately underlying the Landfill meets the exception for high salinity and TDS. The high salinity also prevents use of groundwater beneath the site for any other beneficial use. However, the deeper aquifers beneath the site are a potential source of drinking water. Groundwater beneath the Landfill site discharges to San Francisco Bay. Since the waste in the Landfill has the potential to impact beneficial uses of the bay, this Order is necessary to protect beneficial uses.

#### **HUMAN RIGHT TO WATER POLICY**

24. Under Water Code § 106.3, the State of California's policy is that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Wat. Code, § 106.3; see also State Water Board Resolution No. 2016- 0010.) The human right to water extends to all Californians, including disadvantaged individuals and groups and communities in rural and urban areas. This Order promotes the Human Right to Water Policy by prohibiting discharges of waste and leachate from the Landfill.

# CALIFORNIA ENVIRONMENTAL QUALITY ACT

25. Adoption of this Order is exempt from the California Environmental Quality Act (CEQA). Under the common-sense exception in CEQA Guidelines section 15061, subdivision (b)(3) (Cal. Code Regs., tit. 14, section 15061, subd. (b)(3)), CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This Order reflects the current post-closure land use, changes in ownership, the results of groundwater monitoring program data and other monitoring events, and upgrades made to the Landfill cover and gas collection system. It requires the Discharger to continue ongoing site monitoring and maintenance activities. It will not cause any environmental changes compared to the existing baseline conditions and will not result in any significant effect on the environment. Adoption of this Order is also exempt under section 15301 of the CEQA Guidelines (Cal. Code Regs., tit. 14, section 15301) because it permits an existing facility involving no expansion of an existing or former use.

# NOTIFICATIONS AND MEETING

- 26. The Regional Water Board has notified the Discharger 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.
- 27. 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 California Water Code (CWC) section 13263, and CCR Title 27, Division 2, Subdivision 1, that the Discharger shall meet the applicable provisions contained in Title 27 and shall comply with the following:

#### A. PROHIBITIONS

- 1. The creation of any new waste management unit is prohibited.
- 2. No additional waste shall be deposited or stored at this Landfill, except for waste temporarily contained in trash receptacles at America Center facilities. Such waste may be stored temporarily, but not disposed of, at the Landfill.
- 3. Relocation of Landfill wastes is prohibited without prior Regional Water Board concurrence.

- 4. Waste materials shall not be exposed or relocated to any position where they can migrate from the Landfill to adjacent geologic materials, waters of the State, or waters of the United States during the post-closure maintenance period.
- 5. 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 waters of the United States.
- 6. The Discharger shall not perform any intrusive activities, such as digging or trenching, on the Landfill surface that have the potential to negatively affect the integrity and proper function of the Landfill cap without prior Regional Water Board approval. The only exceptions to this prohibition are for routine maintenance or improvements as described in the PCMP or, in the event of an emergency, repair to the environmental control system (LGCS) to protect human health and the environment. In addition, the Discharger may perform subsidence repairs if suitable soils and methods, as described in the PCMP, are utilized to repair the cap and maintain positive surface water flow.
- 7. The Discharger shall not damage the Landfill cap during vegetative growth control.
- 8. Excavation within, or reconfiguration of, any existing waste management unit is prohibited without prior written concurrence of Regional Water Board. Minor excavation or reconfiguration activities, such as replacement of landfill gas/leachate collection and control system elements, installation of signs or landscaping or for routine maintenance and repair, do not require prior staff concurrence.
- 9. Leachate, stormwater, or groundwater containing leachate or in contact with waste, shall not be discharged to waters of the state or waters of the United States.
- 10. Buildup of leachate levels within the Landfill that adversely impacts waters of the State is prohibited.
- 11. The Discharger shall not cause the following conditions to exist in waters of the state or waters of the United States at any place outside existing waste management units:
  - a. Surface Waters:
    - 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**

- The Discharger shall conduct monitoring activities according to the SMP attached to this Order, 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 leachate and landfill gas.
- 2. 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 water-bearing zone each well is intended to monitor.
- 3 The Discharger shall install new monitoring stations to replace any monitoring wells designated as monitoring stations that are damaged, destroyed, or rendered non-functional during the Landfill's post-closure maintenance period.
- 4. The Discharger shall maintain all devices or designed features installed in accordance with this Order, and in accordance with the SMP, such that they continue to operate as intended without interruption.
- 5. The Discharger shall install any additional groundwater and leachate monitoring devices required to fulfill the terms of the SMP.
- 6. All samples collected at the Landfill 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 Water Quality Protection Standard (WQPS) for the Landfill shall include constituents of concern, concentration limits, point of compliance and all monitoring points. The WQPS shall establish and comply with all of the following:
  - a. <u>Constituents of Concern</u>: Constituents of Concern (COCs) include "all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit." (Cal. Code Regs., Title 27, § 20395(a).) COCs include monitoring parameters identified in the SMP attached to this Order or any future amendment thereof.
  - b. <u>Monitoring Parameters</u>: Monitoring parameters (MPs), a subset of the COCs, are typically the most mobile and commonly detected COCs in groundwater at the site and are measured on a more frequent basis than the other COCs. The MPs for the site shall include, at a minimum, all constituents identified as such in the SMP. The

Discharger 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. <u>Water Standard</u>: The Water Standard for corrective action COCs at the specified points of compliance shall be set at the MCL specified in Title 22 CCR or 40 CFR Parts 141 and 143, whichever is lower.
- d. <u>Point of Compliance (POC):</u> The POC is the "vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit." (Cal. Code Regs., Title 27, § 20405(a).)
- e. <u>Background Monitoring Points:</u> A Background Monitoring Point is "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." (Cal. Code Regs., Title 27, § 20164.)
- 8. The Discharger shall maintain the Landfill to prevent a measurably significant increase in water quality parameters at points of compliance.
- 9. In conjunction with the corrective action measures, the Discharger shall establish and implement a water quality monitoring program to demonstrate the effectiveness of the corrective action program [Cal. Code Regs., Title 27 § 20430(d)]. The monitoring program shall be effective in determining compliance with the WQPS described above (under §20390) and in determining the success of the corrective action measures [pursuant to § 20430(c)].
- 10. The Discharger 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 will issue a letter of approval that incorporates the proposed revisions into the SMP.
- 11. The final cover system shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.
- 12. The Landfill shall be protected from any washout or erosion of wastes from inundation.
- 13. The Discharger 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.
- 14. The Discharger 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

- closure, and post-closure maintenance periods. These monuments shall be installed by a licensed land surveyor or registered civil engineer.
- 15. 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.
- 16. 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.
- 17. The Discharger 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.
- 18. The Discharger shall provide reasonable access to any property it owns or leases at the Landfill to allow for installation, sampling, and monitoring of all devices and equipment necessary for compliance with the requirements of this Order.
- 19. 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.
- 20. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.
- 21. If a seep from the Landfill is observed coming into contact with any bordering surface water body, the Discharger shall immediately notify the Regional Water Board. Sampling of upstream and downstream locations on that surface water body may be required on a schedule to be determined by Regional Water Board staff.
- 22. Surface drainage shall be intercepted and controlled to promote flow off the Landfill and prevent ponding during the post-closure period.

#### C. PROVISIONS

1. Duty to Comply: 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 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 WDRs by the Regional Water Board.

- 2. Authority: All technical and monitoring reports required by this Order are required pursuant to CWC sections 13260 and 13267. 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 Discharger to enforcement action pursuant to CWC section 13268 or 13261.
- 3. **Self-Monitoring Program:** The Discharger shall implement and comply with the SMP attached to this Order and any revisions issued by the Executive Officer. The attached SMP is designed to assess the effectiveness of the corrective action program and demonstrate compliance with the WQPS. The Discharger 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. Conversely, the Discharger may incorporate both semi-annual monitoring event data into one annual report to be submitted no later than October 31. The report shall include a section detailing repair and maintenance activities needed and performed during each semi-annual monitoring period and a section detailing compliance with maintaining hydraulic control of landfill leachate.

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

4. Material Change in Post-Closure Land Use Reporting: The Discharger shall submit a technical report, acceptable to the Executive Officer, describing any material change in the proposed land use or post-closure 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 Regional Water Board.

# 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 Discharger shall submit a Notice of Intent to the State Water Board, submit a SWPPP 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 Discharger will be deemed in compliance with this Provision if another party constructing improvements on property owned by the Discharger has obtained coverage under the General Permit.

# **COMPLIANCE DATE: 30 days prior to construction**

6. **Groundwater Well Installation or Destruction Report**: The Discharger 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 groundwater monitoring wells and extraction wells installed or destroyed.

# REPORT DUE DATE: 60 days following well installation or destruction

- 7. **Long-Term Flood Protection Plan**: The Discharger shall submit a sea level rise vulnerability assessment and adaptation plan (SLR Plan) consistent with the most current *State of California Sea-Level Rise Guidance (Ocean Protection Council [OPC], currently 2018)* and *BCDC's Bay Plan*, acceptable to the Executive Officer. The SLR plan shall identify strategies for the long-term protection of the Landfill from flooding and inundation due to SLR and extreme climate/weather events. The plan shall:
  - 1) Be prepared by a qualified engineer and be based on providing protection from the estimated 100-year total water level (TWL) on top of 3.5 feet of SLR from the current sea level. The 100-year TWL shall take into account astronomical tides and storm surge as well as wind waves and wave run-up;
  - 2) Identify baseline conditions for the Landfill, which include, but are not limited to sitewide elevations, vulnerable infrastructure (i.e., waste containment features, wetlands, roads, buildings, remediation systems, piping, wells) and sea level elevations at which flooding will impact the Landfill;
  - 3) Propose an adaptive management strategy that will be updated every five years and compared against actual SLR measured at the Landfill plus a projected 3.5 feet of future SLR;
  - 4) Include an implementation schedule, acceptable to the Executive Officer, that will protect vulnerable features and infrastructure prior to the projected timing of SLR impacts (e.g.,prior to projected flooding). The projected timing will be determined using the current State of California Sea Level Rise Guidance.

The plan shall also evaluate and select strategies consistent with the most up-to-date science on climate change and adaptation strategies. The recent version of the San Francisco Bay Shoreline Adaptation Atlas (currently 2019), prepared by the San Francisco Estuary Institute (Adaptation Atlas) serves as an important science-based tool for developing adaptation strategies for the Bay shoreline as climate change impacts the shoreline. The Adaptation Atlas uses a framework of Operational Landscape Units (OLUs) where the key purpose of the OLU framework is to identify where it may be possible to use nature-based approaches, such as beaches, marshes, and subtidal reefs, to create a resilient shoreline with multiple benefits. Nature-based approaches, and hybrid measures that integrate nature with engineered structural approaches, may perform better than traditional engineered infrastructure alone.

# REPORT DUE DATE: December 31, 2022, and update every five years thereafter

8. **Earthquake Inspection**: The Discharger 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 6 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**

9. Change in Site Conditions: The Discharger shall immediately notify the Regional Water Board of 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 Discharger 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

- 10. **Availability:** A copy of these WDRs shall be maintained by the Discharger and shall be made available by the Discharger to all employees or contractors performing work (maintenance, monitoring, repair, construction, etc.) at the Landfill.
- 11. Change in Ownership: 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 proposed 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 statement. The discharge of waste without waste discharge requirements is a violation of the California Water Code.
- 12. **Information Correction**: 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.
- 13. **Revision**: This Order is subject to review and revision by the Regional Water Board.
- 14. **Vested Rights**: This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from liability under federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge.
- 15. **Severability**: Provisions of this Order are severable. If any provision of these WDRs is

- determined to be invalid by the State Water Resources Control Board or a court, the remainder of these requirements shall not be affected.
- 16. Operation and Maintenance: 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 include 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.
- 17. **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 Discharger 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 five 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.
- 18. **Entry and Inspection**: The Discharger 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:
  - 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.

- 19. **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 Water Resources Control Board, Division of Drinking Water. The 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 U.S. EPA SW-846 or other equivalent U.S. EPA Method.
- 20. **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.
- 21. **Endangerment of Health or the Environment**: The Discharger shall report any event of noncompliance that may endanger human health or the environment. Any such information shall be provided orally to the Regional Water Board within 24 hours from the time the Discharger becomes aware of the circumstances by calling (510) 622-2369. A written submission to the Regional Water Board shall also be provided within five days of the time a Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or his or her delegate, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- 22. **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. Santa Clara County Department of Environmental Health (Local Enforcement Agency)

The Executive Officer may modify this distribution list as needed.

23. **Reporting Requirements**: All reports submitted pursuant to this Order must be in accordance with the State Water Board-adopted regulations requiring electronic report and data submittal to the State's GeoTracker database (CCR §§ 3890-3895). Email notification should be provided to Regional Water Board staff whenever a file is uploaded to GeoTracker. In addition, the Discharger shall submit hard copies of reports to Regional Water Board staff upon request.

The Discharger is responsible for submitting the following via GeoTracker:

a. All chemical analytical results for water samples;

- The latitude and longitude of any sampling point for which data is reported, accurate to within one meter and referenced to a minimum of two reference points from the California Spatial Reference System, if available, unless specified in the SMP;
- c. The surveyed elevation relative to a geodetic datum of any permanent sampling point for which data is reported;
- d. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevations for which data is reported;
- e. A site map or maps showing the location of all sampling points for which data is reported;
- f. The depth of the sampling point or depth and length of screened interval for any permanent monitoring well for which data is reported;
- g. PDF copies of boring logs; and
- h. PDF copies of all reports, workplans, and other documents (the document, in its entirety [signature pages, text, figures, tables, etc.] must be saved to a single PDF file) including the signed transmittal letter and professional certification by a California professional civil engineer or a professional geologist.

Upon request, monitoring results shall also be provided electronically in Microsoft Excel® to allow for ease of review of site data and to facilitate data computations and/or plotting that Regional Water Board staff may undertake during the review process. Such electronic tables shall include the following information unless directed otherwise by Water Board staff:

- a. Well designations;
- b. Well location coordinates (latitude and longitude);
- 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.

- 24. This Order supersedes and rescinds Order No. 01-029.
- 25. Under Water Code section 13320, a party aggrieved by the Regional Water Board's action or inaction on this Order may petition the State Water Resources Control Board for review within thirty (30) days of such action or inaction.

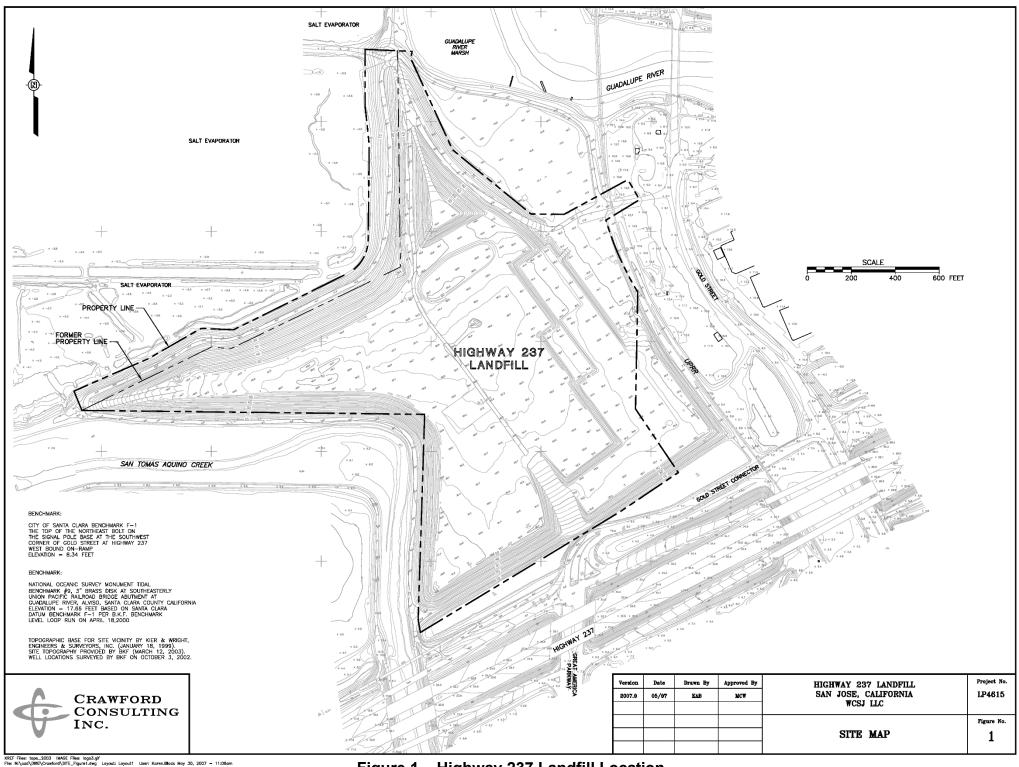
| I, Thomas Mumley, Interim Executive Officer,  | do hereby certify that the foregoing is a full, |
|---|---|
| complete, and correct copy of an order adopte | d by the California Regional Water Quality      |
| Control Board, San Francisco Bay Region, on   | , <mark>202</mark> 2.                           |

Thomas Mumley
Interim Executive Officer

Figure 1 – Highway 237 Landfill Location

Figure 2 – Site Layout and Monitoring Locations

Attachment: Self-Monitoring Program



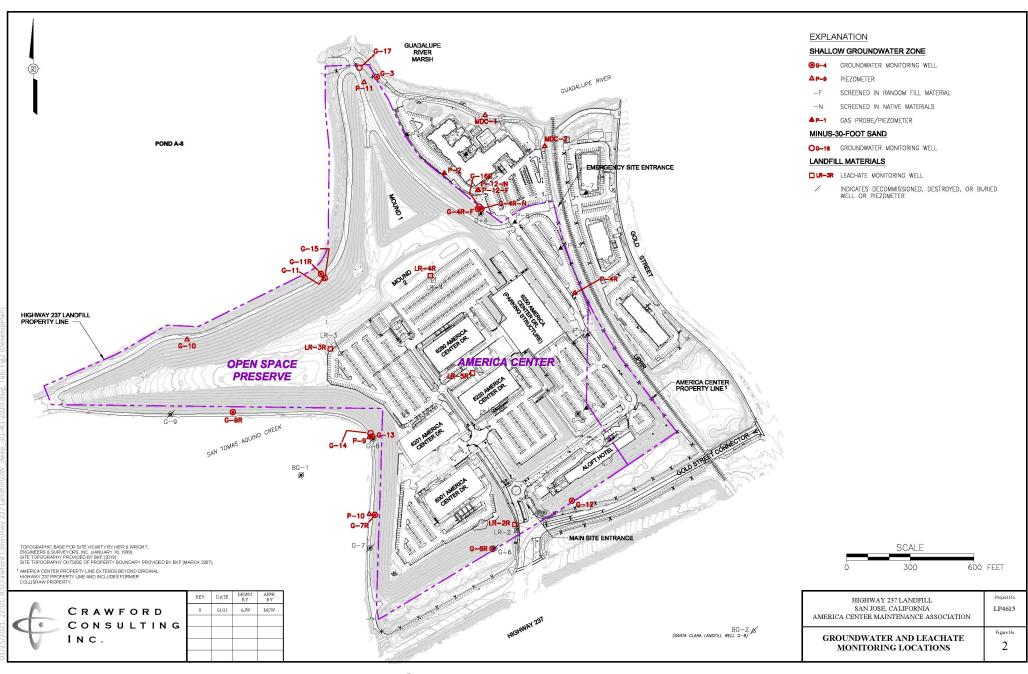


Figure 2 – Site Layout and Monitoring Locations

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

# **SELF-MONITORING PROGRAM FOR**

HIGHWAY 237 LANDFILL SANTA CLARA COUNTY

ORDER NO. R2-2022-XXXX

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 (CCR), Title 27, sections 20380 through 20435. 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, 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."

#### **PFAS Sampling**

To ensure the sampling is consistent with State Water Board standards, the analytical laboratory performing PFAS analyses must be accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the method compliant with Department of Defense Table B-15 of Quality Systems Manual (https://denix.osd.mil/edqw/documents/), Version 5.1 or later. The laboratory must be capable of quantifying the target PFAS analytes listed in the Table B-2. A list of laboratories that are accredited by ELAP by analytical method can be found on the State Water Board PFAS webpage (https://www.waterboards.ca.gov/pfas/).

#### **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 exposed 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, including groundwater and leachate seeps, 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 exposed waste;
- d. Vegetation coverage; and
- e. Measurement of groundwater elevations.

# 3. Receiving Waters:

- a. Floating and suspended materials of waste originating from the Landfill, 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 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 collection and control system; and
- 4. Leachate extraction system elements such as leachate storage tanks or sumps, piping, pumps and control equipment.

# **Quality Assurance/Quality Control Sample Monitoring**

The Discharger 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 (except where dedicated equipment is used); and
- 4. Trip blank one sample per cooler.

# C. REPORTING REQUIREMENTS

Reporting responsibilities of waste dischargers are specified in Water Code sections 13260, 13267 subdivision (b), and 13383, 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. <u>Transmittal Letter</u>: 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 Discharger's 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. <u>Graphic Presentation</u>: The following maps, figures, and graphs (if applicable) shall be included in each SMR to visually present data collected pursuant to this SMP:

#### Highway 237 Landfill R2-2022-XXXX

- 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. Leachate and 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. <u>Tabular Presentation</u>: The following data (if applicable) shall be presented in tabular form and included in each SMR to show a chronological history and allow 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. <u>Appendices</u>: 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 Discharger 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 Discharger 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 Discharger 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 Discharger 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 Discharger 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 Title 27, section 20425.

# E. REPORTING REQUIREMENTS

The Discharger shall submit SMRs to Regional Water Board staff in accordance with the schedule indicated in Table B-1. Reports due at the same time may be 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 Provisions C.20 and C.24 of the WDR.

# F. MAINTENANCE OF WRITTEN RECORDS

The Discharger 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 4.

#### 1. Environmental Media

- a. <u>Groundwater</u>: 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. <u>Leachate</u>: Leachate elevations shall be monitored at the individual leachate wells, as specified in Table B-1. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.

#### 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 Discharger shall inspect all containment and control structures and devices associated with the Landfill in accordance with the PCMP, 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 Discharger shall submit SMRs to Regional Water Board staff in accordance with the schedule indicated in Table B-1. Reports due at the same time may be 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

# **Table B-1: Self-Monitoring Program**

**Groundwater (POC) Wells:** 13 in number – [G-3, G-4R-F, G-4R-N, G-6R, G-7R, G-9R, G-11R, G-12, G-13, G-14, G-15, G-16R, G-17].

| <b>Monitoring Event</b>                       | Frequency  | Parameters   |
|---|--|--|
| Constituents<br>of<br>Concern<br>(POC Wells)  | Once every five years  Last COC event was conducted in 2017 (Report due in 2022) | Monitoring Parameters and Volatile Organic Compounds (Subtitle D Appendix I)  PFAS (Table B-2)  Dissolved Metals (As, Ba, Co, Cr, Hg, Ni, Se, Ag, Sn, V, Zn)  Field Parameters – pH, electrical conductivity, temperature, turbidity, and dissolved oxygen |
| Monitoring Parameters<br>(MPs)<br>(POC Wells) | Semi-Annual  1st Report due July 31 2nd Report due January 31                    | Volatile Organic Compounds (Subtitle D Appendix I)  Ammonia-N  Chemical Oxygen Demand  Barium [dissolved]  Field Parameters – pH, electrical conductivity, temperature, turbidity, and dissolved oxygen  |
| Groundwater and Leachate<br>Levels            | Semi Annual  | As detailed in Part A  |
| Standard Observations                         | Quarterly  | As detailed in Part A  |

# **Table B-1: Self-Monitoring Program**

Leachate Level Wells: 4 in number – [LR-2R, LR-3R, LR-4R, LR-5R].

| <u>J</u> 1                     | emi-Annual<br>July 31 and January | Ammonia-N |
|--------------------------------|-----------------------------------|-----------|
| Monitoring Parameters<br>(MPs) | 31 each year                      | MtBE      |

Table B-2: Required Analyte List and Target Reporting Limits for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids by Department of Defense Quality Systems

Manual (Version 5.1 or later)

| Chemical Name/<br>Abbreviation(s)  | Geotracker<br>PARLABEL | Chemical<br>Abstracts<br>Service<br>(CAS) No. | Aqueous:<br>Groundwater<br>(ng/L) |
|--|------------------------|---|-----------------------------------|
| Perfluorobutanoic acid (PFBA)  | PFBTA                  | 375-22-4                                      | 8.0                               |
| Perfluoropentanoiic acid (PFPeA)   | PFPA                   | 2706-90-3                                     | 5.0                               |
| Perfluorohexanoic acid (PFHxA)   | PFHA                   | 307-24-4                                      | 5.0                               |
| Perfluoroheptanoic acid (PFHpA)  | PFHPA                  | 375-85-9                                      | 5.0                               |
| Perfluorooctanoic acid (PFOA)  | PFOA                   | 335-67-1                                      | 5.0                               |
| Perfluorononanoic acid (PFNA)  | PFNA                   | 375-95-1                                      | 5.0                               |
| Perfluorodecanoic acid (PFDA)  | PFNDCA                 | 335-76-2                                      | 5.0                               |
| Perfluoroundecanoic acid (PFUnDA,<br>PFUda, PFUnA)                       | PFUNDCA                | 2058-94-8                                     | 5.0                               |
| Perfluorododecanoic acid (PFDoDA, PFDoA)                                 | PFDOA                  | 307-55-1                                      | 5.0                               |
| Perfluorobutane sulfonic acid (PFBS)                                     | PFBSA                  | 375-73-5                                      | 5.0                               |
| Perfluoropentane sulfonoic acid (PFPeS)                                  | PFPES                  | 2706-91-4                                     | 5.0                               |
| Perfluorohexane sulfonic acid (PFHxS)                                    | PFHXSA                 | 355-46-4                                      | 5.0                               |
| Perfluoroheptane sulfonic acid (PFHpS)                                   | PFHPSA                 | 375-92-8                                      | 5.0                               |
| Perfluorooctane sulfonic acid (PFOS)                                     | PFOS                   | 1763-23-1                                     | 5.0                               |
| 2H,2H,3H,3H-Perfluorohexanoic acid(3:3 FTCA)                             | 3:3FTCA                | 356-02-5                                      | 8.0                               |
| 2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)                            | 5:3FTCA                | 914637-49-3                                   | 8.0                               |
| 2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)                            | 7:3FTCA                | 812-70-4                                      | 8.0                               |
| Hexafluoropropylene Oxide Dimer Acid2 (HFPO-DA)                          | HFPA-DA                | 13252-13-6                                    | 8.0                               |
| 4,8-Dioxa-3H-perfluorononanoic acid2 (ADONA)                             | ADONA                  | 919005-14-4                                   | 8.0                               |
| 9-Chlorohexadecafluoro-3-oxanonane-1- sulfonic acid2 (9-<br>CI-PF3ONS)   | 9CIPF3ONS              | 756426-58-1                                   | 8.0                               |
| 11-Chloroeicosafluoro-3-oxaundecane-1-<br>sulfonic acid2 (11-CI-PF3OUdS) | 11CIPF3OUdS            | 763051-92-9                                   | 8.0                               |
| Nonafluoro-3,6-dioxaheptanoic acid2 (NFDHA)                              | NFDHA                  | 151772-58-6                                   | 8.0                               |
| Perfluoro(2-ethoxyethane) sulfonic acid2 (PFEESA)                        | PFEESA                 | 113507-82-7                                   | 8.0                               |
| Perfluoro-3-methoxypropanoic acid2 (PFMPA)                               | PFMPA                  | 377-73-1                                      | 8.0                               |
| Perfluoro-4-methoxybutanoic acid2 (PFMBA)                                | PFMBA                  | 863090-89-5                                   | 8.0                               |

# **Abbreviations:**

ng/L = nanogram per liter