CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. R2-2020-0029

UPDATED WASTE DISCHARGE REQUIREMENTS and RESCISSION OF ORDER No. 96-040 for:

CITY OF MOUNTAIN VIEW SHORELINE REGIONAL PARK CLASS III SOLID WASTE DISPOSAL LANDFILL MOUNTAIN VIEW, SANTA CLARA COUNTY

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

DISCHARGER AND LOCATION

1. This Order prescribes requirements for the closed Class III Shoreline Regional Park Landfill (Landfill) in Mountain View, California. The area referred to as "the Landfill" includes the "544-Acre Parcel," the "Vista Parcel," and the "Crittenden Parcel," which collectively comprise 458 landfilled areas within the 750-acre Shoreline Regional Wildlife Park and Recreation Area property. For clarification, the "544-Acre Parcel" includes 340 landfilled acres and 204 non-landfilled acres. This Class III solid waste management facility is owned and maintained by the City of Mountain View. Accordingly, this Order will use the term "Landfill" to refer to the entire 458-acre landfilled area at the Shoreline Regional Wildlife Park and Recreation Area.

2. The Landfill received waste from the 1930's to 1987. Located north of Highway 101 in the relatively flat, low-lying tidal area adjacent to San Francisco Bay, the Landfill is bordered to the north by the South Bay Salt Pond Restoration Project (former commercial salt evaporation ponds) and to the east by Stevens Creek. Commercial and industrial developments are located to the west and south of the Landfill. Permanente Creek traverses the west-central portion of the property and discharges to Mountain View Slough, as shown in Figure 1.

3. The Shoreline Regional Wildlife and Recreation Area (Shoreline Regional Park or Park) was established atop the closed Landfill in 1997. The Park is used for a multitude of land uses, including an 18-hole golf course, driving range, two restaurants, a boathouse and sailing lake, hiking trails, an open-air amphitheater, parking, open space, and wildlife habitat.

4. The City of Mountain View is named as the Discharger because it owns the Landfill and monitors the groundwater, leachate and landfill gas there. Accordingly, the City

of Mountain View is responsible for compliance with this Order and any corrective action measures required at the Landfill.

PURPOSE OF ORDER UPDATE

5. The primary objectives of this Order are to:

   a. Rescind Order No. 96-040, the previous Waste Discharge Requirements (WDRs) for the Landfill.

   b. Update the WDRs to reflect the current post-closure land use, the results of historical water quality monitoring, and upgrades made to the Landfill cover and gas collection system; and

   c. Require the City of Mountain View 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.

REGULATORY HISTORY

6. The Regional Water Board has regulated the Landfill under the following orders:

   a. In 1973, the Board adopted Order No. 73-51, which prescribed WDRs for the Ferrari Brothers Landfill (now referred to as the Crittenden Parcel, described in finding 5 below).

   b. On February 21, 1978, the Board adopted Order No. 78-11, which prescribed WDRs for the Shoreline Regional Park Class III Waste Disposal Site.

   c. On February 17, 1988, the Board adopted Order No. 88-027, which rescinded Order No. 78-11 and prescribed updated WDRs for the City of Mountain View and Laidlaw Waste System's Shoreline Regional Park Class III Waste Disposal Site.

   d. On March 20, 1996, the Board adopted WDR Order No. 96-040, which rescinded Order No. 88-027 and prescribed updated WDRs for the City of Mountain View Shoreline Regional Park Class III Solid Waste Disposal Site.

   e. This Order rescinds and supersedes WDR Order No. 96-040.

LANDFILL DESCRIPTION AND HISTORY

7. **Dates of Operation**:

   <u>The 544-Acre Parcel:</u> Landfilling at this parcel apparently began in the 1930s, but no records are available to describe the early waste disposal operations at the landfill.

The City of Mountain View acquired the 544-acre parcel in 1970 and operated it as a municipal landfill from 1971 to 1981, eventually developing 13 separate waste disposal cells.

Vista Parcel: This parcel was formerly called the 150-Acre Parcel. It covers 88-Acres of landfill and lies to the south of the 544-Acre Parcel and is separated from it by a PG&E Easement on the north and Permanente Creek on the west. Landfilling waste at this parcel began in 1976 and ceased in 1984. The Shoreline Amphitheater and its associated parking lots have been developed on the northeast portion of this parcel.

Crittenden Parcel: This parcel was formerly called the "Ferrari Parcel." It comprises about 50 acres (30 acres of landfill) and lies to the south of the 544-Acre parcel and to the east of the Vista parcel. The Crittenden parcel was operated as a landfill by Ferrari Brothers in 1968 and accepted demolition debris and municipal waste. The City acquired the Crittenden parcel in 1984 and used it as a sanitary landfill in 1987 and 1988.

8. **Wastes Accepted:** The Landfill is a Class III solid waste facility that received approximately 19,000,000 cubic yards of non-hazardous solid waste between 1971 and 1988. In 1976, the 544-acre parcel and the Vista parcel were reportedly receiving approximately 2,000 tons of waste per day five days per week. In addition, the Landfill was also receiving 200 tons per day of digested sewage sludge seven days per week. The Discharger placed approximately 30,000 cubic yards of sewage sludge at the Landfill from September 1986 to January 1987.

GEOLOGICAL AND HYDROGEOLOGICAL SETTING

9. **Geology:** The Landfill is located within the Coast Ranges geomorphic province along the southwest 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. Three major northwest-trending faults 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 downwarping of the area between them, are responsible for the formation of the Bay.

   At lower elevations within the Bay area, such as at 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.

   The Landfill site is underlain by interfingering fine and coarse-grained alluvial deposits and more extensive marine silts and clays. The coarser alluvial sands, gravels, and silty and clayey sands and gravels tend to occur as lenses within finer-

grained silts and clays. The coarse-grained sediments were deposited by streams flowing northward into the San Francisco Bay; thus, lenses of these stream-bed deposits tend to be elongated along a north-south axis throughout the region.

A laterally extensive but thin layer of black, peaty, Young Bay Mud is present beneath the northern half of the landfill site. This recent marsh deposit is thickest at the northern boundary of the Landfill and pinches out at its southernmost edge. At some portions of the Landfill, the Young Bay Mud was removed during the construction of dike and landfill cells.

Marine and non-marine silts and clays comprise most of the stratigraphic column beneath the Landfill. The interfingered and gradational contacts between different lithologies make it difficult to distinguish between marine and non-marine silts and clays. A thick sequence of silts and clays occurs roughly between elevations -80 MVD and -150 to -180 MVD. This sequence contains very little coarse-grained material and probably represents a long interval of marine deposition.

The laterally continuous and unconsolidated San Francisco Bay Mud reportedly underlies approximately the northern one-half of the Landfill at depths between 0 and -10 feet below ground surface. Fluvial and interfluvial deposits underlying the Bay Mud consist of fine-grained sands, silts and organic and silty clays with local lenses and channels of coarse-grained sands and gravels. Depth to bedrock at the Landfill is estimated to be on the order of 1,500 feet.

10. **Local Seismic Setting:** The Landfill is located in a seismically active area approximately midway between the San Andreas and Hayward fault systems. The site lies approximately 12 miles east of the San Andreas fault, 10 miles southwest of the Hayward fault, and 17 miles west of the Calaveras fault. A fault is suspected to exist beneath the Landfill at a depth of 1,000 feet; however, there is no geologic evidence that this fault has offset sediments of Holocene age near the surface.

11. **Hydrogeology:** Groundwater below the Landfill typically flows from south to north toward the Bay and is found at depths from 5 to 15 feet below the existing ground surface. The Landfill's Groundwater Containment System, which includes a dewatering sump at the Crittenden parcel, the slurry wall groundwater barrier and dewatering sump at the Shoreline Amphitheater, and two extraction wells near the northwest corner of the 544-Acre Parcel, is designed to prevent impacted groundwater from migrating laterally away from the landfill. The system operates by modifying the local groundwater flow patterns by reducing groundwater levels in the area to depths as great as 60 feet below ground surface and inducing radial inward flow from as far away as approximately one mile.

    Groundwater in the vicinity of the Landfill occurs primarily within three water-bearing zones designated as Upper, Intermediate and Lower. These water-bearing zones (described below) are separated by aquitards of variable thickness.

a. The Upper Aquifer is an unconfined water-bearing zone consisting of fluvial sands, silts and clays, with gravel lenses and channels. The depth of this aquifer below the landfill varies from -35 feet in the south of the Landfill to -70 feet within the immediate vicinity of the Landfill. An aquitard known as "AB" aquitard, separates the Upper and Intermediate water-bearing zones in the area immediately north of Highway 101 (CH2M Hill, 1988). In this area, the unit is on the order of five feet thick and extends from a depth of approximately -40 to -45 feet. In the immediate vicinity of the Landfill, the Upper and Intermediate water bearing zones appear to constitute one hydrologic unit.

b. The Intermediate Aquifer is a semi-confined unit found at depths between -45 to -70 feet. In general, the head differential between the Upper and Intermediate water-bearing zones is reported to be on the order of one foot. In areas of industrial pumping from the Upper Aquifer, the gradient between the two units is expected to be upward. Nearer the landfill where dewatering operations are conducted to depths greater than 45 feet, the gradient between the Upper and Intermediate Aquifers is expected to be downward.

c. The Lower aquifer at the site is a confined water-bearing zone. A 70-foot thick regional aquitard confines the lower water-bearing zone. The lower zone is interpreted to have an upward gradient of approximately 10 feet relative to overlying units.

12. **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 7,000 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.
    Groundwater monitoring performed around the Landfill perimeter has identified the sporadic occurrence of trace to low concentrations of volatile organic compounds (VOCs), such as trichloroethene and cis-1,2-dichloroethene. These VOCs may be associated with the Landfill or may reflect residual VOCs from cleanup sites upgradient of the Landfill.

13. **Sea Level Rise and Surface Waters**: The City of Mountain View completed a Sea Level Rise (SLR) evaluation in 2013 based on criteria identified in 2012. The study assumed a maximum rise of 31 inches and a minimum rise of 8 inches through 2067). The report is available online at the City website: http://laserfiche.mountainview.gov/WebLink/ElectronicFile.aspx?docid=64135&dbid=0. Provision 7 of this Order requires the City to update the SLR evaluation in 2022 and every five years thereafter.

Surface water bodies in the vicinity of the Landfill include two tidally-influenced creeks (Permanente and Stevens Creeks), two salt evaporation ponds, three tidal marshes, one artificial golf course pond, an artificial 50-acre saltwater lake (called the Sailing Lake) and a number of tributary drainages. The surface water bodies are separated from refuse by levees that were constructed to include a minimum of five feet thick clay liner.

Four additional small clay-lined ponds are located at the 544-Acre Parcel. There is no refuse beneath these ponds, which are filled with water from the City's supply system. In addition, the Sailing Lake exists at the northwest corner of the Landfill, adjacent to the Coast Casey Forebay. The Landfill surrounds at least two thirds of the lake; however, buried refuse does not extend beneath it. Discharge from this lake into San Francisco Bay is monitored in accordance with the Lake Management Plan that has been approved by the Board.

CONSTRUCTION AND CLOSURE

14. **Landfill Construction**: Most of the waste disposal areas at the 544-Acre and Vista parcels were excavated prior to placement of waste. Typically, a landfill cell was excavated to the desired depth and suitable soil from the excavation was stockpiled for use as landfill cover or for other grading and construction purposes. The excavations were dewatered by a perimeter ditch that was dug to a depth of approximately 5 feet below the base of the excavated disposal cell.

15. **Landfill Base Liner**: The 544-Acre Parcel: During the first year of waste placement in 1971, engineered liners were not routinely constructed at the 544-Acre Parcel. It was thought that the low-permeability native soil was sufficient to contain the wastes. The native soil in the parcel was examined by a consulting inspector or by the City Engineer for suitability as natural liner material. These inspections usually included shallow borings to determine the nature and thickness of low-permeability silts and clays underlying the excavation. If 5 feet or more of silt and clay was present, the waste was placed directly on the native soil without constructing an engineered clay liner. Where permeable sand and/or gravel was encountered at the bottom of the cell, a 5-foot thick re-compacted clay layer was constructed to seal off the permeable material. Additional compacted clay was placed as needed to form a 5-foot thickness of low permeability materials where a 5-foot thickness was not naturally present. This procedure was eventually terminated and 5-foot thick compacted clay liners were routinely placed over the entire cell bottom and sides.

    A series of dikes were constructed at the cell to contain the waste in the cells and to isolate them from the surrounding surface water bodies. During construction, dewatering of cells was accomplished by pumping collected water out of a perimeter trench. The trench was excavated around the perimeter of the refuse cell, and the trench excavation was advanced as cell excavation progressed.

Vista Parcel: The Vista Parcel was excavated and dewatered in much the same manner as the 544-Acre Parcel. The bottom of the landfill consists of three areas that slope to a low centerline. These areas were designed to be lined with minimum of 5 feet of re-compacted native clay. The dewatering trenches around this landfill were converted to French drains and covered by the clay liner. The drains slope toward a collection sump at the southwest corner of the landfill where the water was pumped out and discharged to Permanente Creek. Operation of this dewatering system was discontinued in 1990 and restarted in 2017 under an NPDES General Permit (CAG912002).

Crittenden Parcel: At the time this parcel was acquired by the City in 1984, part of the area had been excavated to approximately 50 feet Mountain View Vertical Datum (MVD). According to the 1988 Preliminary SWAT report, 5-foot clay liners were constructed in areas excavated after mid-1984. Municipal refuse was also placed on over some areas that had been operated by the Ferrari Bothers; engineered liners may not exist beneath those areas. Drilling and sampling in July 1988 encountered apparent native soils beneath refuse in two locations where subgrade excavation and refuse placement was conducted.

The Shoreline Amphitheater was constructed at the Landfill immediately west of North Shoreline Boulevard on the eastern portion of the Vista Parcel and adjacent to the 544-Acre Parcel. A subsurface cut-off wall (2.5 feet wide and extending to a depth of approximately 55 feet below ground surface) has been constructed around the amphitheater to reduce the subsurface migration of groundwater and leachate into the amphitheater. No refuse was placed inside the area protected by the cutoff wall. A dewatering system within the cut-off wall collects any seepage through the wall and discharges to Permanente Creek. Under a NPDES General Permit (CAG912002), 80,000 gallons of groundwater per day is discharged to Permanente Creek.

16. **Final Cover Construction**: The 544-Acre, Vista, and Crittenden Parcels were closed in accordance with California Code of Regulations Title 14 and Title 27 standards.

    The 544-Acre Parcel was closed in the 1980s under the prescriptive requirements of CCR Title 14, which required placement of a three- to four-foot thick cover with a one-foot thick section of clay having a permeability of $10E^{-06}$ centimeters per second. Closure was certified by the Regional Water Board in 1997.

    The Vista and Crittenden Parcels were closed in accordance with CCR Title 27 with a two-foot-thick foundation layer, one-foot-thick clay layer, and a two-foot-thick vegetative layer. Closure was approved by the Board and CalRecycle in 1999.

17. **Stormwater Drainage and Permit Requirements**: The final cover of the Landfill is graded to allow unimpacted stormwater to flow into perimeter drainage ditches that discharge to San Francisco Bay. Regular maintenance of the perimeter ditches is necessary to minimize infiltration of stormwater into the Landfill. The Park is not subject to Industrial General Permit (IGP) requirements for stormwater due to its status as a closed site and its use as an undeveloped park.

18. **Leachate Collection and Removal System:** The Landfill did not originally contain a leachate collection and removal system (LCRS) because Landfill construction predated regulations requiring LCRS systems. Leachate is collected and removed from landfill gas collection wells and discharged to the City of Palo Alto Water Quality Control Plant.

19. **Landfill Gas Collection and Removal System:** The Landfill gas collection and control system (GCCS) consists of 264 vertical wells ranging in depth from 7.5 to 60 feet, 7 horizontal collectors, and 9 horizontal surface collectors. Wells are typically constructed within 24-inch diameter boreholes, using 4 to 8-inch diameter HPDE casing and screen. The GCCS operates under Permit # A2740 issued by the Bay Area Air Quality Management District and employs three flares for thermal destruction and three microturbine stacks to dispose of the landfill gas. Landfill gas condensate is collected in sumps. Gas condensate is conveyed to the sanitary sewer for discharge at the City of Palo Alto Water Quality Control Plant.

20. **Operation and Maintenance Plan**: In 2018, the Discharger updated its *Post-Closure Maintenance Plan* (PCMP) to modify site operations and maintenance and clarify the responsibilities of the City of Mountain View and Shoreline Amphitheatre including responsibility for:

    - Monthly final cover system inspections
    - Periodic maintenance of the landfill gas monitoring and control systems
    - Periodic groundwater monitoring
    - Periodic vegetation inspection and management
    - Periodic inspection and monitoring of final slopes
    - Periodic inspection and maintenance of landfill drainage structures.

POST-CLOSURE LAND USE

21. The current and intended future use of the closed Landfill is open space as a public wildlife and recreational area. The City established the Shoreline Regional Wildlife and Recreation Area (Shoreline) on the property in 1979. Shoreline includes an 18-hole golf course, driving range, two restaurants, a boathouse and sailing lake, trails, an open-air amphitheater (Shoreline Amphitheatre), parking, open space, wildlife habitat, and other recreational facilities

Shoreline Amphitheatre was developed in 1985 on the east-facing slope of the Vista Parcel. The amphitheater and its parking areas are located immediately west of North Shoreline Boulevard and North of Amphitheatre Parkway. The City currently leases the facility to Live Nation, Inc., which hosts outdoor events, primarily music concerts.

MONITORING PROGRAMS

22. **Groundwater**: The Self-Monitoring Program (SMP) attached to this Order revises the groundwater monitoring program that was contained in WDR Order No. 96-040. The groundwater monitoring network at Shoreline includes 44 groundwater piezometers, one groundwater extraction sump, and two groundwater extraction wells. Groundwater elevations are currently monitored at each of the 44 piezometers, at the Crittenden Sump (CS), and at extraction wells EW-2 and EW-3. Groundwater samples are obtained from CS and extraction wells EW-2 and EW-3.

23. **Surface Water**: Limited surface water monitoring is conducted as part of the Landfill's NPDES discharge program (CAG912002). The presence of a thick levee between the areas of buried wastes and Permanente and Stevens Creeks makes it extremely unlikely that the buried waste affects surface water flows at Shoreline.

FINANCIAL ASSURANCE

24. The Discharger has provided Financial Assurances for post-closure maintenance, potential water-related and non-water-related corrective action in accordance with 27 CCR Division 2, Subdivision 1, Chapter 6.

ANTIDEGRADATION POLICY

25. CFR Title 40, part 131.12, requires that state water quality standards include an antidegradation policy consistent with federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution 68-16, which incorporates the federal antidegradation policy where federal policy applies. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. This order complies with the antidegradation policy because it requires existing water quality in the vicinity of the Landfill to be maintained; directing 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

26. 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

27. The beneficial use of the shallow groundwater (elevation MSL to approximately 40 feet below grade) found in the surficial alluvial deposits at and around the Landfill is to recharge the surface waters of South Francisco Bay and contiguous waters. The beneficial uses of South San Francisco Bay, Sailing Pond, Permanente Creek, Stevens Creek 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
    l. 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 TDS, high background contaminant levels, or those areas with a low well yield. The groundwater immediately underlying the Landfill is not a potential source of drinking water because it meets the exception for high salinity and TDS. The high salinity also prevents use of groundwater beneath the site for any other beneficial use.

SAFE DRINKING WATER POLICY

28. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring Dischargers to maintain the integrity of the Landfill cover, to continue operating the groundwater and landfill gas containment systems, and sending leachate to a Publicly Owned

Treatment Works (POTW) for treatment, and to ensure that stormwater does not come into contact with leachate or waste.

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND ENDANGERED SPECIES

29. Adoption of this Order is exempt from the California Environmental Quality Act (CEQA). Under the common-sense exception in CEQA Guidelines section15061, subdivision (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 requires the Discharger to continue site monitoring and maintenance activities, which will not have a significant effect on the environment and will not cause any environmental changes to the existing baseline conditions. This Order does not allow for the take, or incidental take, of any special status species. The Discharger shall use the appropriate protocols, as approved by CDFW and USFWS, to ensure that project activities do not impact the Beneficial Use of the Preservation of Rare and Endangered Species

NOTIFICATIONS AND MEETING

30. 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.

31. 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, with the exception of waste temporarily contained in trash receptacles at Shoreline facilities. Such waste may be stored temporarily, but not disposed of, at the Landfill.

3. Relocation of 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 Park 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. Surface drainage shall be intercepted and controlled to promote flow off the Landfill and prevent ponding during the post-closure period.

10. 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 unless specifically authorized under NPDES permit CAG912002.

11. Buildup of leachate levels within the Landfill that adversely impacts waters of the State is prohibited and shall be prevented by operation of the Landfill's gas collection system.

12. 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

1. 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. Constituents of Concern: 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. Monitoring Parameters: 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. Water Standard: 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. Point of Compliance (POC): 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. Background Monitoring Points: 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 Water Standard 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, monitoring, etc., 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. The Discharger is required to maintain and operate the Groundwater Containment System during the closure and post-closure period to provide and maintain hydraulic control of potentially impacted groundwater.

22. The operations and maintenance of the Shoreline Regional Wildlife Park and Recreation Area portions of the Landfill site shall comply with the Post-Closure

Maintenance Plan. In addition, inspection of perimeter levees for failures that may cause erosion or any other condition that could threaten water quality or expose debris or waste shall be performed at least semi-annually.

23. 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.

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 recent version of the San Francisco Bay Shoreline Adaptation Atlas (currently 2019), prepared by the San Francisco Estuary Institute (Adaptation Atlas). The 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 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

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**: The Discharger must notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of ownership or management of the Landfill or Park. The notice shall include the contact information of the succeeding owner or manager. The Discharger must notify any proposed new owner or manager that the Landfill is subject to this Order, and the new owner or manager must comply with any requirements of this Order related to the day-to-day management of the property. The new owner then must apply for an amendment to this Order for the Regional Water Board to acknowledge the transfer of ownership and responsibilities under the order. The City of Mountain View shall remain responsible for compliance with this Order unless and until the Order is amended to transfer responsibilities to another entity.

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:

    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.

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;

    b. 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);

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.

24. This Order supersedes and rescinds Order No. 96-040.

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, Michael Montgomery, Executive Officer, do hereby certify that the foregoing is a full,

complete, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 14, 2020.

Digitally signed by Michael Montgomery
Date: 2020.10.21 17:02:46 -07'00'

Michael Montgomery
Executive Officer

Attachments:

Figure 1 – Shoreline Regional Wildlife Park and Recreation Area (Landfill) Location

Figure 2 – Site Layout

Self-Monitoring Program

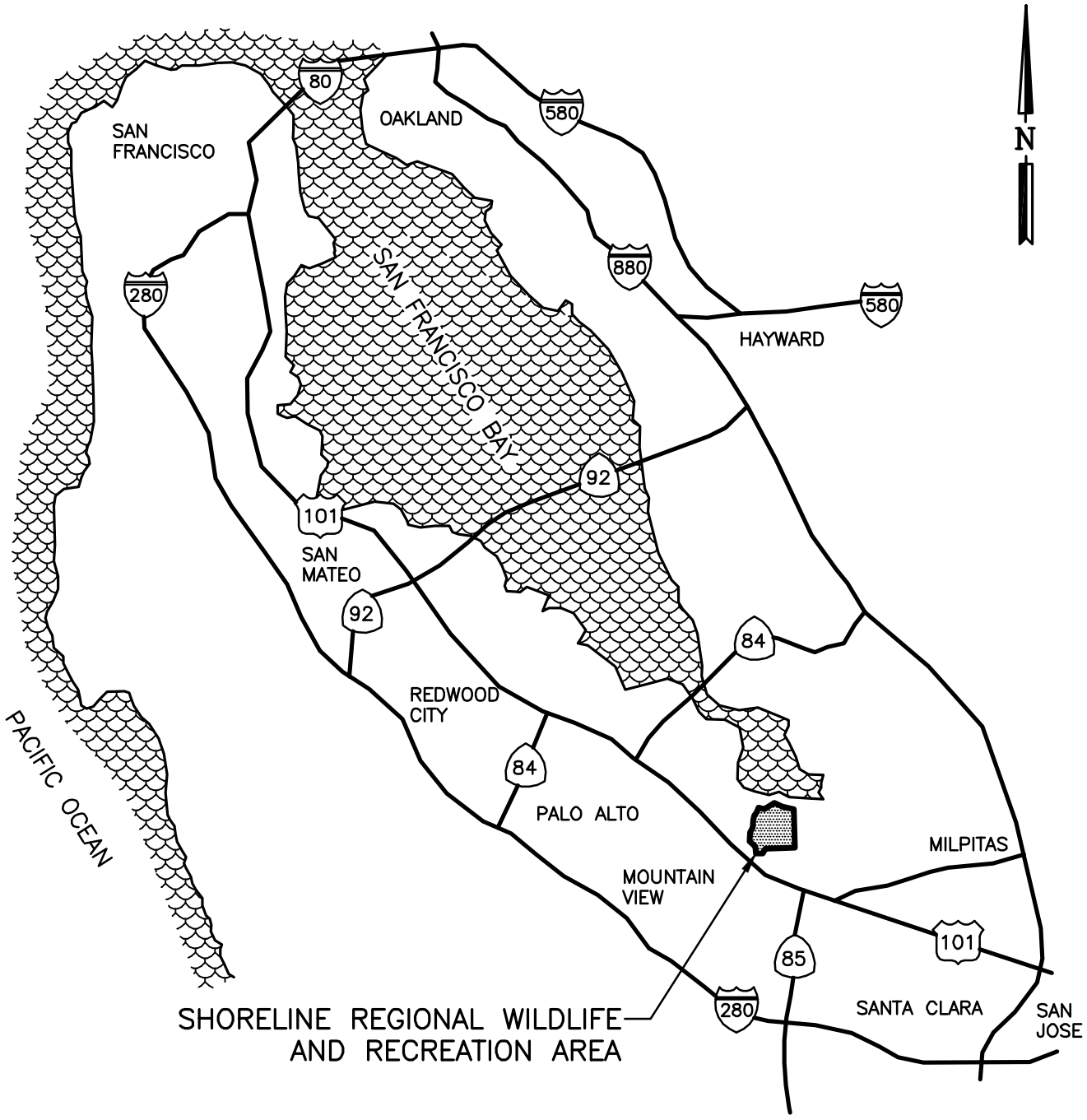

FIGURE 1

REGIONAL LOCATION MAP		
SHORELINE REGIONAL PARK CLASS III DISPOSAL SITE MOUNTAIN VIEW, CALIFORNIA		
Geo-Logic ASSOCIATES		
DRAFTER/PM: VL/TS	DATE: MARCH 2020	JOB NO. S019.1254

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FIGURE 2

SITE LAYOUT

SHORELINE REGIONAL PARK
CLASS III DISPOSAL SITE
MOUNTAIN VIEW, CALIFORNIA

Geo-Logic ASSOCIATES

DRAFTER/PM: VL/TS	DATE: MARCH 2020	JOB NO. SO19.1254

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR

CITY OF MOUNTAIN VIEW SHORELINE REGIONAL PARK CLASS III SOLID WASTE DISPOSAL SITE

MOUNTAIN VIEW, CALIFORNIA

ORDER NO. R2-2020-0029

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);
e. Monitoring parameters and analytes (Part B).

A. AUTHORITY AND PURPOSE

For discharges of waste to land and surface water bodies, water quality monitoring is required pursuant to the California Water Code sections 13260,13263, 13267, 13383 and 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 paragraphs below define 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 USEPA-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 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, 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 concerns; 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 may include the following:

1. Final cover;
2. Stormwater management system elements such as perimeter drainage and diversion channels, ditches and down-chutes;
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 3 regular samples;
2. Field blank – one per semiannual monitoring event;
3. Equipment blank – one sample per semiannual monitoring event 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. 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 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. 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 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:

      a. 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 (as necessary); 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, 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. If the Discharger determines that the corrective action measures are not effective, the Discharger shall, within 90 days of making the determination, submit an amended report of waste discharge to the Regional Water Board. The amended report of waste discharge shall identify appropriate changes to the program. If the Regional Water Board determines that the corrective action program is not effective, the Discharger shall, within 90 days of receiving written notification of such determination by the Regional Water Board, submit an amended report of waste discharge to make appropriate changes to the program.

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 Provision C.23 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 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. Stormwater: As outlined in Provision C.5 of the WDR.

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 Post-Closure Maintenance Plan 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:** 3 in number – EW-2, EW-3 and Crittenden Sump		
Monitoring Event	**Frequency**	**Parameter**[1]
Constituents of Concern **(POC Wells)**	**Once every five years** Last COC event was conducted in 2018 (Next event 2023)	**Volatile Organic Compounds**[2] **Semi-Volatile Organic Compounds**[3] **Dissolved Metals**[4] **Organophosphorous Pesticides and PCBs**[5] **Chlorinated Herbicides**[6] **Cyanide** **Field Parameters –** pH, electrical conductivity, temperature, turbidity, and dissolved oxygen
Monitoring Parameters (MPs) **(POC Wells)**	**Semi-Annual** 1st Report due April 30 2nd Report due October 31	**Volatile Organic Compounds**[7] **1,4-Dioxane** **Field Parameters –** pH, electrical conductivity, temperature, turbidity, and dissolved oxygen
Groundwater Levels[7]	**Semi-Annual**	**As detailed in Part A**
Standard Observations	**Semi Annual**	**As detailed in Part A**

Table B-1: Self-Monitoring Program Leachate Sampling Prior to Discharge to POTW		
Monitoring Event	**Frequency**	**Parameter**
Constituents of Concern	**Once every five years** Last COC event was conducted in 2018 (Next event 2023)	**Same as Groundwater Constituents of Concern**
Monitoring Parameters (MPs)	**Annual**	**Volatile Organic Compounds[7]** **1,4-Dioxane** **Field Parameters –** pH, electrical conductivity, temperature, turbidity, and dissolved oxygen

1. List of VOCs includes: 1,4-dioxane, 2-butanone, acetone, benzene, chlorobenzene, chloromethane, ethylbenzene, styrene, tetrahydrofuran, toluene, trichlorofluoromethane, vinyl chloride, and xylene.
2. List of SVOCs includes: 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, naphthalene, 4,6-dinitro-2-methylphenol, 2,4-dimethylphenol, p-cresol (4-methylphenol), o-cresol (4-methylphenol), acenaphthene, fluorene, phenanthrene, n-nitrosodipropylamine, n-nitrosodiphenylamine, nitrobenzene, 2,4,6-trichlorophenol, 2,4-dichlorophenol, 2,4-dinitrophenol, 2-chlorophenol, 2-nitrophenol, 4-nitrophenol, and pentachlorophenol.
3. List of metals includes: As, Ba, Cd, Cr, Co, Cu, Hg, Ni, Pb, Se, Sb, V, and Zn.
4. List of pesticides/PCBs includes: 4,4'-DDE, 4,4'-DDT, aldrin, dieldrin, heptachlor, methoxychlor, beta-BHC, delta-BHC, gamma-BHC (lindane), endosulfan sulfate, PCB-1016, PCB-1242, PCB-1254, and PCB-1260.
5. List of herbicides includes: silvex, 2,4,5 T, and 2,4 D
6. List of VOCs includes: 1,1-dichloroethane, 1,4-dichlorobenzene, benzene, chlorobenzene, cis-1,2-dichloroethene, ethylbenzene, tetrahydrofuran, toluene, trichloroethene, and xylene.
7. Water levels in 44 piezometers.