CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2011-0037

UPDATED WASTE DISCHARGE REQUIREMENTS AND RESCISSION OF ORDER NO. 01-050 FOR:

GUADALUPE RUBBISH DISPOSAL COMPANY, INC.
GUADALUPE RECYCLING AND DISPOSAL FACILITY
CLASS III SOLID WASTE DISPOSAL FACILITY
SAN JOSE, SANTA CLARA COUNTY

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

1. **Owner, operator, and discharger named**: Guadalupe Recycling and Disposal Facility (the Landfill) is owned and operated by Guadalupe Rubbish Disposal Company, Inc. (hereinafter called the Discharger).

2. **Location**: The Landfill is located at 15999 Guadalupe Mines Road, in south San Jose; approximately four miles southeast of the City of Los Gatos. The Landfill sits within a steep canyon at the northern base of the Santa Cruz Mountains.

3. **Physical Description**: The Discharger owns and operates the 411-acre site, 115 acres of which is permitted for waste disposal of Class III municipal refuse. The Landfill is surrounded by residential properties to the north, commercial properties to the west, and open space and park lands (Santa Clara County New Almaden Quicksilver Park) to the south and east, respectively (Figure 1).

PURPOSE OF ORDER

4. The primary objectives of this Order are to:
   a. Update the permit to account for development and operational changes implemented since adoption of the last Order, and incorporate plans for construction and filling of future landfill cells;
   b. Reflect changes in the Landfill's Waste Acceptance Criteria (WAC); and
   c. Make minor revisions to the Self-Monitoring Program (SMP) and require the Discharger evaluate whether it should be further revised to enhance detection monitoring in response to future filling plans and recent changes in the WAC.

SITE DESCRIPTION

5. Between 1929 and 1959, the site operated as an open burn-dump. Subsequently, the site was converted to a sanitary landfill. The Landfill has been developed in phases, in accordance with pertinent regulations, e.g., liner requirements.

6. The current facilities on the 411-acre site include the following (Figure 2):
   a. The landfill operational area, which is currently or is slated to be filled with waste;
   b. A recycling processing area and transfer facility;
   c. A wood and yard waste processing area;
   d. An equipment maintenance facility;
   e. Weigh scale facilities and administrative offices;
   f. A hazardous waste storage area;
   g. Sedimentation ponds (for settling of stormwater prior to discharge);
   h. A landscape materials supply facility;
   i. A landfill gas energy facility (Gas Recovery Facility) consisting of engine generators, a flare, and landfill gas condensate storage; and
   j. Leachate storage tanks and drains.

REGULATORY HISTORY

7. The Discharger submitted a Report of Waste Discharge (ROWD) on October 14, 1988, which served as an application for Waste Discharge Requirements (WDRs) for the Landfill. Initially, the WDRs permitted operations on 65-acres of the site. Expansion to include an additional 50 acres was permitted after approval of an Environmental Impact Report in 1989.

8. The Regional Water Board adopted Order No. 01-050 to update prior WDRs by revising the groundwater, surface water, C and I drain, and leachate monitoring programs; and to reflect the most current regulations. Order No. 01-050 updated and rescinded Order Nos. 90-139 and 93-113, the latter a general amendment of WDRs intended to bring all of the region's landfills into compliance with federal Resources Conservation and Recovery Act Subtitle D requirements for monitoring and waste containment.

9. In March 2006, the SMP was updated in an amendment of Order 01-050. The update reflected the change in classification of I and C Drain flows from groundwater to leachate. Constructed in 1994, these drains were designed to capture for treatment groundwater that had potentially been in contact with waste below the pre-Subtitle D (unlined) cells at the Landfill. Thus, the flows may contain a combination of leachate and groundwater. The amendment permitted them to be considered leachate in the SMP.

10. The Discharger is covered under the State Water Resources Control Board's (State Water Board) most recent General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit), having filed a Notice of Intent in 1991. The Discharger submits stormwater pollution prevention plans (SWPPPs) to this Regional Water Board's stormwater section of the Watershed Division. A copy of the SWPPP is provided to the Regional Water Board's Planning Division, to address issues related to the former mercury mine onsite, and to the Groundwater Protection and Waste Containment Division, to demonstrate compliance with stormwater controls related to runoff from operations areas.

WASTE AND CLASSIFICATION

11. The Landfill currently accepts non-hazardous, non-designated municipal solid waste classified in accordance with 27CCR, Sections 20220 and 20230 for Class III wastes. Municipal refuse and commercial/industrial waste includes solid waste generated by residences, commercial entities, and non-hazardous waste generated by the industrial sector. Some wastes require special handling, including high moisture content wastes, non-friable asbestos, treated auto shredder waste, treated wood waste, and appliances containing CFC's like Freon.

12. The Discharger is allowed to accept 3,650 tons of waste per day. Currently, the Discharger receives an average of 1,000 tons per day (6 days/week) for recycling and disposal, with an average of 825 tons per day disposed within the Landfill. The remaining design capacity of the Landfill is approximately 11,055,758 cubic yards as of January 2011 (inclusive of waste, and daily/intermediate cover), and is expected to reach capacity in 2048. No portions of the Landfill have achieved final grade. For purposes of this site life estimate, it is assumed that the waste disposal tonnage will increase annually by 3% until 2015 and then remain constant throughout the remaining life of the site.

PHYSICAL SETTING

Surface Hydrology

13. Guadalupe Creek and an ephemeral, unnamed tributary are the principal drainages to the west of the Landfill, while the east side of the Landfill is drained by McAbee Creek and its ephemeral, unnamed tributary in New Almaden Quicksilver Park. Runoff from the Landfill is collected in sedimentation ponds and is then discharged to these creeks (Figure 3). Approximately a mile and a half downstream, Santa Clara Valley Water District has installed percolation ponds along Guadalupe Creek below the confluence with Alamitos Creek, to facilitate recharge of the region's groundwater municipal water supply.

14. Guadalupe and McAbee creeks are monitored for potential impacts of loading of suspended sediments from operations areas. The Discharger continuously updates stormwater best management practices. The Discharger submits an annual stormwater report pursuant the general industrial storm water permit (see findings 10 and 40).

15. The mean annual precipitation for the site is about 25 inches. The 100-year, 24-hour storm event is estimated to be 3.6 inches. The mean annual evaporation is estimated to be approximately 31 inches.

Geology and Hydrogeology

16. The Landfill was built within a moderately steep canyon near the base of the Santa Cruz Mountains along the southwestern edge of the Santa Clara Valley. The canyon sits within a branch of the Shannon Fault Zone that trends northeast to southwest, bisecting the Landfill. The Landfill is underlain by the Temblor Formation on the northeast side of the fault, which consists of interbedded sandstone, claystone, shale, and pyroclastic tuff-breccia. The Franciscan Formation underlies the Landfill on the southwest side of the fault; primarily serpentinite, greywacke, and mélange of variably metamorphosed marine deposits. The

canyon fill is approximately 25 to 30 feet thick, and consists of alluvium and colluvium that is predominantly clay interbedded with silts and sands as well as some gravels. The bedrock of both formations beneath the fill is sheared and brecciated.

17. Groundwater occurs in each of the geologic units described in the previous section. In general, the shallowest encountered groundwater is present under unconfined conditions within 10 to 50 feet below the ground surface. Locally, however, perched and semi-perched water has been encountered, and semi-confined conditions may also exist in some areas. Within the Franciscan bedrock, groundwater occurs principally in fractures and sheared materials (EMCON, 1987). In the Temblor Formation, groundwater may occur in the intergranular porosity of the sandstone and in fractures. The alluvium in the bottom of the canyon west of the Landfill is saturated to within approximately 10 feet of the ground surface.

18. Groundwater flow in the vicinity of the site is believed to be controlled primarily by site topography. The site's steep grade and high relief are capable of generating large hydraulic gradients, and shallow groundwater may be expected to flow parallel to surface topography. Numerous groundwater elevation contour maps have been developed to support this general flow pattern. Bray (1992) inferred from observed water levels that groundwater over the entire site flowed from upland recharge areas under the surrounding ridges toward the Shannon fault zone along the thalweg of the canyon, and then along the fault primarily to the west. However, the pre-landfill topography shows a drainage divide beneath a small area of the eastern portion of the Landfill footprint. Groundwater in this area moves eastward in the bedrock along the fault zone.

19. Several hydraulic conductivity measurements have been made of the formations at the site. The values vary due to the differing composition of geologic materials and the presence of fractures in the bedrock units. The highest hydraulic conductivity was measured in the alluvium, with values ranging from 10^{-2} to 10^{-3} centimeters per second (cm/sec). The lowest hydraulic conductivities were measured in the Temblor and Franciscan units, with values of approximately $1x10^{-6}$ cm/sec. Increased fracture density (and associated hydraulic conductivity) were observed within the Shannon Fault zone, and this may contribute to the convergence of groundwater flow within the canyon bottom.

20. It is likely that some shallow groundwater discharge occurs directly beneath the Landfill where it overlies the former bottom of the canyon. Groundwater seeps were known to exist in the Franciscan formation of the natural canyon slopes located on the southerly portion of the canyon. Specific seepage points on the south slope of Module 2 exposed by excavation and strip drains were installed below the liner system at the time of construction of Phases III and IV of Module 2 (Wyse, 1994, 1996, 1998).

21. As a part of the engineered control systems, two under-drains and a cutoff trench were constructed to capture shallow groundwater in the former canyon area and/or leachate that may migrate downgradient from the unlined landfill. The under-drains are referred to as the Channel Drain (C Drain) and Interceptor Drain (I Drain) and are shown on Figure 4. Drain construction design specifications were prepared by James A. Wyse, Inc., in April 1993 and updated several times in 1993 and 1994. The installation of these drains preceded the construction of a small western expansion area of the Landfill (Module 2). Module 2 overlies the former canyon stream channel in which the C Drain is located.

22. Figure B-1 of the attached SMP illustrates the groundwater monitoring locations and groundwater flow measurement locations (piezometers). Note that the Franciscan bedrock consists primarily of sheared shale and fractured sandstone, graywacke, and greenstone, and is generally considered a non-water-bearing unit relative to the overlying (Pleistocene) alluvium.

Former Mercury Mining Area

23. Guadalupe Mine, located in the southeastern portion of the property adjacent to Guadalupe Creek, was in operation between the mid-1800's and mid-1900's with some possible intermittent, sporadic operations during limited periods up until approximately 1975. The Discharger has been working with Santa Clara County, the Regional Water Board's Planning Division, and others to minimize erosion of mine waste rock and tailings into the creek. The former mining area is located within the Discharger's property and outside the footprint of the Landfill.

LANDFILL DESIGN AND CONSTRUCION

Liner Design and Fill Sequence (Figure 4)

24. **Pre-Subtitle D Base Liner**: The northern portion of Module 1 is unlined. The unlined portion of Module 1 measures approximately 26 acres and is underlain by relatively low-permeability geologic materials. The southern portion of Module 1 is primarily lined with low-permeability soil (clay liner) with a Leachate Collection and Recovery System (LCRS, description below). The clay-lined portion of Module 1 measures approximately 29 acres.

25. **Subtitle D Base Liner**:
    a. **Module 1**: The composite-lined portion of Module 1 measures approximately 8 acres and is located in the eastern portion of Module 1. The composite-lined portion of Module 1 has a prescriptive composite liner with 60-mil geomembrane over a 2-foot thick, compacted low-permeability soil layer. The composite-lined portion of Module 1 was constructed in 1992.
    b. **Module 2**: Module 2 is located in the western portion of the Landfill and measures approximately 10 acres. Module 2 was constructed between 1993 and 1997. The Module 2 liner consists of an Alternate Engineered Design composite liner system with an 80-mil geomembrane over GCL.
    c. **Module 3**: Module 3 is located in the northern portion of the Landfill and measures approximately 32 acres. Module 3, Phase I was constructed in 2003, Phase II in 2004, and Phase III in 2007. The liner for Phases I through III of Module 3 consists of an Alternate Engineered Design composite liner system with an 80-mil geomembrane over GCL. The side-slope containment system for future phases of Module 3 will consist of the following components from top to bottom: a two-foot thick layer of operations soil; an LCRS geocomposite drainage layer; an 80-mil textured HDPE geomembrane (single-sided, textured side down); a reinforced GCL; a layer of 80-mil HDPE geomembrane below the LCRS pipes draining westward along benches of shallow slope gradient (less than 3 percent); and subgrade soils or bedrock. The containment system for the floor of future phases of Module 3 consists of the following

components from top to bottom: a two-foot thick layer of operations soil; a geotextile filter layer; a minimum one-foot-thick LCRS gravel layer; an 80-mil textured HDPE geomembrane (single-sided, textured side down); a two-foot-thick compacted low-permeability layer with a permeability of 1 x 10-7 cm/s or less, (or a reinforced GCL as approved by the Regional Water Board); and subgrade soils or bedrock. A 1-foot-thick subdrain layer will be constructed directly beneath the floor containment system if areas of detected groundwater seepage are encountered and/or there is less than five feet of separation distance between the anticipated high groundwater level and wastes.

26. **Final Cover:** As defined in Section 5.9 of the Joint Technical Document (JTD), the cover system design includes the following components on the side-slope from top to bottom: a one-foot-thick vegetative cover layer; a one-foot-thick compacted clay layer (permeability of 1x10-6 cm/s or less); and a two-foot-thick foundation layer. On the top deck, the proposed final cover system consists of Engineered Alternative Design consisting of the following components from top to bottom: a one-foot-thick vegetative cover layer; a geocomposite drainage layer; a 60-mil thick HDPE geomembrane; a reinforced GCL; and a one-foot-thick foundation layer.

Expansion Plans for the Permitted Footprint

27. **Lateral Expansion:** The Landfill has currently developed approximately 92 acres out of the total 115 permitted for development. Modifications to the design, requiring toe berms be constructed at the western and eastern ends of the Landfill, have reduced the estimated waste footprint to 107 acres. Modifications may be made to increase the waste footprint in the future up to, but not exceeding, the permitted footprint of 115 acres. Future lateral development consists of Module 3, Phases IV through VII. The Module 3, Phase IV area is scheduled for construction in 2013. The remaining phases will be scheduled for development when determined to be operationally required.

28. In 1992, the Discharger initiated development of disposal cells east of a groundwater divide (Figure B-1 of the attached SMP). The disposal cells located east of the divide include the composite-lined Module 1 area, and the future Module 3, Phases V through VII. The composite-lined Module 1 area was constructed in 1992. It is anticipated that construction and waste placement in the Module 3, Phase IV area will begin in 2015. Provision C. 4 of this Order requires the Discharger to evaluate if the SMP should be amended to enhance monitoring of the eastward flow of groundwater. If enhanced monitoring is warranted, the Provision requires the Discharger to propose adjustments to the SMP.

29. **Vertical Expansion:** Waste will continue to be placed over existing waste in the western portion of the Landfill. This area consists of portions of Module 1, Module 2, and Module 3, Phase I and II. As future areas of Module 3 are completed, waste will be placed laterally and vertically over the newly lined areas and the adjacent existing cells until the final grading plan is reached.

Leachate Collection and Recovery Systems

30. There are LCRSs in each of the Landfill modules, designed to operate with the type of liner present beneath each module. The southern portion of Module 1 is clay lined and

leachate collection lines drain from this portion of the Landfill to the composite-lined portion of Module 1 at the easternmost part of the Landfill. Leachate is collected from these two portions of Module 1 and drained to the eastern leachate storage tank, pumped into trucks, and discharged to the sanitary sewer. Module 2 is constructed with a composite liner and drains leachate through two HDPE drain pipes that discharge to the sanitary sewer. Module 3, Phases I through III are constructed with composite liners. Phases I and II drain westward through the Module 2 LCRS and discharge to the sanitary sewer. The Phase III LCRS drains eastward to a leachate storage tank. Leachate is pumped from the tank into trucks and discharged to the sanitary sewer.

31. Two drains were constructed near the western end of the unlined cells as part of the LCRS. These drains were designed as mitigation measures to intercept groundwater that potentially contacts waste in the unlined cells. These drains are located hydraulically down-gradient from the unlined cells and are named the Channel Drain (C Drain) and the Interceptor Drain (I Drain). The purpose of these drains is to collect and control any future water flow within the former canyon stream channel and from the unlined cells. The C Drain is oriented east to west and is located in a former canyon stream channel and beneath the Module 2 liner. The C Drain consists of a 6-inch-diameter perforated PVC pipe bedded in a gravel-filled trench. The trench is approximately 4-feet deep and 2-feet wide. The I Drain is oriented north to south and located adjacent to and down-gradient from, the unlined Module 1 area. The I Drain consists of a 6-inch-diameter HDPE pipe bedded in a gravel-filled trench. Both the C Drain and the I Drain discharge to the sanitary sewer.

32. As future phases of Module 3 are constructed, the LCRS system will continue to gravity drain to the east into temporary leachate storage tanks. Eventually, a permanent sump will be constructed in the eastern most area of Module 3.

33. The design plans for each phase of construction were submitted to the Regional Water Board.

CORRECTIVE ACTION

34. **1991 Volatile Organic Compounds Detections**: A groundwater corrective action program was initiated at the Landfill in 1991 due to detections of volatile organic compounds (VOCs) in the vicinity of the maintenance shop building. The source of the VOCs detected in this area is uncertain. A letter report titled "*Additional Verification Monitoring, Guadalupe Disposal Site*" prepared by EMCON Associates and dated August 20, 1991, identified a nearby septic tank and drainfield system as a potential source, as well as landfill gas. The corrective action program includes extraction of groundwater from wells G-8, G-10, and G-11R (see Figure B-1 of the attached SMP). VOC concentrations in the area have diminished significantly since the early 1990's.

    A Pilot Study Workplan for Terminating Groundwater Extraction (SCS Engineers, May 30, 2007) was approved by the Regional Water Board in June 2007 because a review of monitoring data in 2007 indicated non-detect to very low concentrations of VOCs were present in the water extracted at wells G-8, G-10, and G-11R. It was hypothesized that groundwater extraction from these wells was not improving water quality at the site. The Pilot Study consists of monitored termination of groundwater extraction in the area, with provisions for identifying potential adverse changes in water quality so that pumping could

be resumed if conditions warranted. A review of the results of this study and a determination regarding permanent termination of groundwater extraction is forthcoming.

35. **2010 Condensate Release**: A release of landfill gas condensate to soil and surface water occurred at the Landfill's Gas Recovery Facility on December 20, 2010. Condensate, a byproduct of the collection of landfill gas, is collected onsite and either injected with landfill gas into an onsite flare or transported offsite for disposal. The condensate is stored in a 6,500 gallon tank before manual injection by an onsite operator [a tenant of the Discharger, Guadalupe Energy Holdings, LLC, (GEH) who operates the engines at the Gas Recovery Facility and leases a portion of the property]. The spill occurred when the GEH operator failed to maintain the landfill gas condensate level in the aboveground storage tank, resulting in an overflow. The condensate seeped into soil, as well as pooled and discharged to the Landfill's stormwater conveyance system, where it flowed to a stormwater sedimentation pond. Some condensate discharged offsite with stormwater to a McAbee Creek tributary at stormwater sampling location SW-2 (Figure B-1 of the attached SMP). Provisions C. 6 and 7 require the Discharger to develop and implement a plan to prevent spills and discharges of landfill gas condensate in the future.

MONITORING, COLLECTION, AND CONTROL PROGRAMS

Groundwater

36. The Landfill is under a detection monitoring program (DMP) in accordance with Section 20420 of 27CCR.

37. A groundwater monitoring program has been in effect at the Landfill since 1987, and the Discharger has conducted quarterly detection monitoring of groundwater for the monitoring parameters [groundwater levels, field parameters, inorganic water quality parameters, and VOCs including MTBE] in compliance wells G-3A, G-4, G6-B, G-9A, G-9B, and G-9C (Figure B-1 of the attached SMP). Typically, only sporadic detections of cis-1,2-DCE and carbon disulfide (naturally occurring), and common lab contaminants (acetone and chloromethane) at trace levels are identified.

38. Detection for leachate leaks at the Landfill is primarily reliant on a non-statistical comparison test of VOCs. For any single sample from a downgradient monitoring point, if any two VOCs exceed their method detection limit (USEPA methods), or if any one VOC exceeds its laboratory reporting limit, an initial indication of a potential release is identified and further action is initiated to assess if the exceedances result from a leak. Statistical analysis of inorganic parameters are performed to identify trends in concentration, however this data is not used for leak detection due to high background concentrations. This methodology is unchanged in the SMP attached to this Order.

39. Beginning the third quarter of 2007, a pilot study was initiated with Executive Officer concurrence to identify if changes to the corrective action measures described in Finding 34 are warranted. The current program requires semi-annual sampling of wells G-8, G-10, and G-11R (Figure B-1 of the attached SMP) during the second and fourth quarters of the year, with analysis for field parameters and VOCs, including MTBE. The pilot study was initiated to identify if extraction and treatment of groundwater can be terminated without adverse impact. Groundwater is monitored more frequently (quarterly) and for additional

inorganic parameters, to identify if further remediation is necessary. The 4-year pilot study results have not identified increasing trends in VOC concentrations. If this trend continues, it will indicate that the extraction system has no beneficial effect on groundwater quality, and may be terminated.

Surface Water

40. Title 40 of the CFR, Parts 122, 123, and 124, require specific categories of industrial activities, including landfills, to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges. The State Water Board has issued a General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit). The Landfill is subject to the requirements of the General Permit and as such has: (1) submitted a Notice of Intent for coverage under the General Permit, (2) prepared and implemented a monitoring program, and (3) submits annual reports.

    Stormwater is sampled monthly during the wet season in accordance with the General Permit and the SMP. Stormwater runoff is collected from the operational areas and retained in sedimentation ponds prior to discharge offsite. Figure 3 illustrates the primary flow paths of runoff at the Landfill in the discharge points where stormwater samples are collected.

Leachate

41. The monitoring of leachate collected by the LCRS and I and C Drains is conducted in accordance with 40CFR Part 258, 27CCR, and the SMP attached to this Order. Leachate is monitored at collection points L-1, L-2, L-3; as well as the I and C Drains. Leachate is monitored semiannually, primarily for VOCs and metals as well as typical ancillary parameters (pH, temperature, etc.). See Table B-1 and the attached SMP.

Landfill Gas and Condensate

42. The Gas Collection and Control System (GCCS), located in the permitted landfill area and connected to the abatement devices (LFG engine generators and flare) at the Gas Recovery Facility and Flare Station (Figure 2), is regulated by the Bay Area Air Management District (BAAQMD). The GCCS consists of collection wells located in the Landfill that are connected to a header pipeline network to transmit landfill gas under vacuum pressure to the landfill gas recovery and flare system. The landfill gas flare combusts the landfill gas to mitigate potential pollutant emissions.

43. Leachate may be, but is not currently, reused at the Landfill for dust control. Provision C. 14 of this Order requires the Discharger to submit a plan to protect human and environmental health, and get Executive Officer approval prior to initiating that activity.

44. Landfill gas condensate is collected, stored, and disposed of by injecting the condensate into the flare or discharging to the sanitary sewer, as approved by the San Jose/Santa Clara Water Pollution Control Plant. Offsite discharge also occurs by transporting via truck to approved facilities.

45. Subtitle D prohibits recirculation of leachate and landfill gas condensate except where landfill units are equipped with composite liner systems and a LCRS.

46. The Discharger does not currently recirculate leachate at the Landfill, but discharges to the sanitary sewer system for treatment.

LANDFILL CLOSURE

47. **Financial Assurance for Post-Closure Monitoring and Maintenance**: The Discharger has submitted evidence to CalRecycle documenting the existence of a financial assurance mechanism to ensure monitoring and maintenance of the Landfill during the post-closure period. CalRecycle approved the Landfill's financial assurance mechanism by letter dated April 25, 2008.

48. **Financial Assurance for Corrective Action:** The Discharger has submitted evidence to the Regional Water Board documenting the existence of a financial assurance mechanism to ensure corrective actions that may be necessary as a result of current or future foreseeable releases from the Landfill. This letter was submitted on October 27, 1999, and approved by the Regional Water Board on September 9, 2008.

WASTES AND THEIR CLASSIFICATION

49. The Class III landfill was designed to receive nonhazardous solid waste as classified in 27CCR, Section 20220(a) from residential, commercial, and industrial sources.

50. The Discharger disposes of the following wastes in the Landfill:
    a. Municipal solid waste – classified as "nonhazardous solid wastes or inert wastes" using criteria set forth in 27CCR;
    b. Non-friable asbestos – consistent with Title 22 of the Health and Safety Code (Section 25143.7);
    c. Treated Auto Shredder Waste (TASW);
    d. Treated wood waste;
    e. Treated medical waste;
    f. Petroleum-impacted soils;
    g. Manure and dead animals, or portions thereof; and
    h. Agricultural waste, construction and demolition debris, and industrial waste.

51. Acceptance of TASW is dependent upon its categorization by Department of Toxic Substance Control (DTSC) as a non-hazardous material. In September 2008, DTSC indicated that it was repealing an earlier determination that TASW was non-hazardous. The 2008 DTSC guidance indicated that TASW was considered to be potentially hazardous and could no longer be disposed or used as Alternative Daily Cover (ADC) in Class III landfills. In September 2009, however, DTSC postponed the effective date of the TASW determination, meaning that TASW from approved processing shredding facilities

can be used as ADC at this time. The status of TASW acceptance is still being evaluated within California Environmental Protection Agency and is subject to change.

52. In 2010, the Landfill's WAC were updated for pollutant concentrations of waste disposed of at the Landfill. The updated WAC is dated August 2010 and was approved by the Regional Water Board in a letter dated September 29, 2010. The updated criteria reflect the amplified level of protection afforded by the composite lined cells. Any changes to the WAC must be approved by Regional Water Board staff. The tables below detail the pollutant concentrations of waste currently accepted according to cell liner type.

CONSTITUENT (Organic)	OBJECTIVE[1] (ug/L)	WASTE ACCEPTANCE CRITERIA[6] (mg/L)		
		COMPOSITE-LINED AREA[7]	CLAY-LINED AREA[8]	UNLINED AREA[9]
BENZENE	1	0.0275	0.01	0.0075
DICHLOROMETHANE	5	0.1375	0.05	0.0375
1,1-DICHLOROETHANE	5	0.1375	0.05	0.0375
1,4-DIOXANE	3	0.0825	0.03	0.0225
ETHYLBENZENE	300	8.25	3	2.25
MEK	4200	115.5	42	31.5
PCB'S	0.5	0.02	0.0075	0.005
PERCHLORATE	6	0.165	0.06	0.045
PHENOL	4200	115.5	42	31.5
STYRENE	100	2.75	1	0.75
TETRACHLOROETHENE	5	0.1375	0.05	0.0375
TOLUENE	150	4.125	1.5	1.125
TRICHOLOROETHYLENE	5	0.1375	0.05	0.0375
VINYL CHLORIDE	0.5	0.01375	0.005	0.00375
XYLENES	1800	49.5	18	13.5

CONSTITUENT (TPH)	WASTE ACCEPTANCE CRITERIA[10] (mg/kg)		
	COMPOSITE-LINED AREA	CLAY-LINED AREA	UNLINED AREA
TPH-Gasoline	50	50	50
TPH- Diesel	830	830	830
TPH-Motor Oil	5,000	5000	5000

1. Table F-3. Summary of Drinking Water Screening Levels (ug/L) - SWRWQCB ESLs revised May 2008
2. Inorganic attenuation, using CAM Wet Extraction Method, calculated as "Objective" x "Attenuation Factor" / 10 (WET Test dilution). Consistent methodology to be applied for other inorganic constiuents that are not listed, with all values adjusted (if necessary) to be below State and Federal Hazardous Waste Limits.
3. Attenuation Factor equal to 800 for Modules 2 and 3, and 1992 composite-lined area.
4. Attenuation Factor equal to 300 for clay-lined portion of Module 1
5. Attenuation Factor equal to 200 for unlined portion of Module 1.
6. Organic attenuation, using TCLP Extraction Method, calculated as "Objective" x "Attenuation Factor" / 20 (TCLP dilution). Consistent methodology to be applied for other organic constiuents that are not listed, with all values adjusted (if necessary) to be below State and Federal Hazardous Waste Limits and where applicable Bay Area Air Quality Management District methodology will be used.
7. Attenuation Factor equal to 550 for Modules 2 and 3, and 1992 composite lined area
8. Attenuation Factor equal to 200 for clay-lined portion of Module 1.
9. Attenuation Factor equal to 150 for unlined portion of Module 1.

10. Criteria for TPH-gasoline based upon Air Permit limit. Criteria for TPH-Diesel based on SFRWQCB ESL (Table C-2) times multiplier of 10. Criteria for TPH-Motor Oil based on SFRWQCB ESL (Table C-2).

Note: Shaded cells include higher attenuation factors for relatively immobile organic constituents (Kd > 2.0), consistent with the methodology applied to inorganics.

BASIN PLAN AND RESOLUTIONS

53. 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 Board, USEPA, and the Office of Administrative Law where required.

54. The Basin Plan provides that all groundwater is considered suitable, or potentially suitable, for municipal or domestic water supply (MUN) and that, in making any exceptions, the Regional Water Board will consider the criteria referenced in Regional Water Board Resolution No. 89-39, "Sources of Drinking Water," where:

    a. The total dissolved solids exceed 3,000 mg/l (5,000 µS/cm, electrical conductivity), and it is not reasonably expected by the Regional Water Board that the groundwater could supply a public water system; or
    b. There is contamination, either by natural processes or human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using best management practices or best economically achievable treatment practices; or
    c. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

BENEFICIAL USES OF SURFACE WATER AND GROUNDWATER

55. The surface waters that may be impacted by activities at the Landfill include Guadalupe and Alamitos creeks. The existing beneficial uses of these surface waters are:
    a. Freshwater Habitat;
    b. Groundwater Recharge;
    c. Cold Freshwater Habitat;
    d. Warm Freshwater Habitat;
    e. Fish Migration;
    f. Preservation of Rare and Endangered Species;
    g. Fish Spawning;
    h. Wildlife Habitat;
    i. Water Contact Recreation; and
    j. Non-Contact Water Recreation.

56. The Landfill is located within the Santa Clara Valley, Santa Clara Groundwater Basin and Sub-Basin (Basin No. 2-9.02). The existing beneficial uses are:
    a. Municipal and Domestic Water Supply;

b. Agricultural Water Supply;

c. Industrial Process Water Supply; and

d. Industrial Service Supply.

57. Review of Santa Clara Valley Water District records indicates that ten drinking water wells have been identified within one mile of the Landfill. In addition, the Santa Clara Valley Water District's Alamitos Percolation Ponds are located within two miles. Surface water discharging from the Landfill is within the recharge zone of these ponds, which are used to recharge the drinking water supply for Santa Clara County through percolation to the groundwater aquifer.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

58. This action is an Order to enforce the laws and regulations administered by the Regional Water Board. This action is categorically exempt from the provisions of the California Environmental Quality Act pursuant to Section 15301, Title 14CCR.

NOTIFICATION AND PUBLIC MEETING

59. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to update WDRs and has provided them with an opportunity to submit their written views and recommendations.

60. The Regional Water Board in a public meeting heard and considered all comments pertaining to the proposed WDRs for the Landfill.

IT IS HEREBY ORDERED pursuant to the authority in Division 7, Section 13263 of the California Water Code (CWC), Title 27, Division 2, Subdivision 1 of the California Code of Regulations (27CCR), and State Board Resolution No. 93-62 that the Discharger, its agents, successors, and assigns shall meet the applicable provisions contained in 27CCR, Division 7 CWC, and State Board Resolution No. 93-62, and shall comply with the following:

A. PROHIBITIONS

1. Waste shall not be exposed at the surface of any waste management unit (WMU) at the end of waste placement operations in that area.

2. Wastes shall not be disposed of in any position where they can be carried from the disposal site and discharged into waters of the State or of the United States.

3. The discharge of wastes, which have the potential to reduce or impair the integrity of the containment structures or which, if commingled with other wastes in the unit could produce chemical reactions that create adverse heat, pressure, fire, explosion, toxic by-products, or reaction products, is prohibited.

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

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

6. Excavation within or reconfiguration of any existing WMU is prohibited without prior concurrence of Regional Water Board staff. Minor excavation or reconfiguration activities do not require prior staff concurrence.

7. Wastes shall not be placed in any area of a new WMU without Executive Officer approval based on receipt of an adequate CQA report(s) certified by a California - registered civil engineer or California - certified engineering geologist.

8. The discharge of liquids and semi-solid wastes (wastes containing free liquids or less than 50% solids by weight), other than dewatered sewage or water treatment sludge as described in §20220(c) of 27CCR, is prohibited. Exceptions may be made if the Discharger demonstrates that such discharge will not exceed the moisture-holding capacity of the Landfill.

9. Construction of the containment features of all future WMUs must be in compliance with this Order, 27CCR, and State Board Resolution No. 93-62.

10. The discharge or storage of hazardous waste, as defined in Sections 2521 and 2522 of Title 23 and Chapter 11 of Division 4 of Title 22 at the Landfill is prohibited.

11. Groundwater shall not be degraded as a result of the waste disposal operation.

12. Filling of wetlands or waters of the State without certification of water quality impacts associated with the proposed filling by the Regional Water Board pursuant to Section 401 of the federal Clean Water Act is prohibited.

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

14. Buildup or mounding of leachate levels within the Landfill is prohibited and shall be prevented by operation of a LCRS. For lined disposal cells, the depth of leachate shall not be greater than 12 inches above the bottom liner (excluding in collection sumps).

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

16. The treatment, storage, or discharge of groundwater or leachate shall not create a condition of pollution or nuisance as defined in Section 13050(m) CWC, nor degrade the quality of waters of the State or of the United States.

17. The Discharger shall not cause the following conditions to exist in waters of the State or of the United States at any place outside the Landfill boundary:
    a. Surface Waters:
        i. Floating, suspended, or deposited macroscopic particulate matter;
        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 be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which 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. Substantial worsening of existing groundwater impacts.

18. Migration of pollutants through subsurface transport to waters of the State is prohibited.

19. The Landfill shall not accept or dispose of designated waste.

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 landfill environmental control systems including groundwater, surface water, leachate, and landfill gas containment, collection, treatment, and removal.

2. 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 may issue a letter of concurrence that incorporates the proposed revisions into the SMP.

3. The Discharger shall install any reasonable additional monitoring devices for groundwater, surface water, leachate, and landfill gas required to fulfill the terms of any future SMP issued by the Executive Officer for the Landfill.

4. The Discharger shall maintain, inspect, repair, and replace all environmental control devices installed in accordance with this Order such that they continue to operate as intended without interruption.

5. Precipitation and drainage control facilities shall be designed with a minimum capacity to accommodate a 100-year, 24-hour storm event.

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

7. Water used during disposal operations shall be limited to a minimal amount necessary for construction, dust control and fire suppression.

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

9. Hazardous wastes and infectious wastes shall not be disposed of at the Landfill. Non-hazardous, inert wastes and non-friable asbestos may be disposed of at the Landfill provided that all regulations and provisions of CalRecycle, DTSC, local health agencies and county land use permit requirements are complied with.

10. The Discharger is authorized to use certain waste materials for various beneficial applications within the permitted waste boundary, including use as ADC and operations layer material; for construction of access and bench roads, tipping area decks, intermediate pads, and stormwater berms; for backfilling trenching projects and leachate seeps; repairing eroded areas; and filling settlement areas. Beneficial use of salvaged materials outside the permitted waste boundary (e.g., the use of ground green waste for erosion control or concrete/rock as rip rap or road base) is allowed as provided for in the most recently approved JTD.

11. The LCRS shall be maintained and operated to minimize undue buildup of hydraulic head on the bottom of the Landfill and ensure that accumulated fluid is being adequately removed from the Landfill and appropriately contained and discharged.

12. Additional leachate impoundment(s) may be considered upon submittal of technical designs for liner and demonstration that the Landfill meets the siting criteria for a Class II surface impoundment in compliance with requirements of 27CCR.

13. 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.

14. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through wastes during disposal operation or during the life of the site.

15. Measures shall be taken to ensure that leachate in the leachate collection system can flow freely into the leachate collection sumps. Measures shall also be taken to assure that the leachate collection sumps and extraction wells will remain operational with minimal interruption.

16. Each monitoring well shall target only one hydrostratigraphic unit.

17. The Discharger shall assure that the foundation of the site, the solid waste fill, and the structures that control leachate, surface drainage, erosion and landfill gas for this site are constructed and maintained to withstand conditions generated during the maximum probable earthquake as defined by 27CCR.

18. Final and interim covers for the Landfill shall be graded and maintained to promote lateral runoff of precipitation and prevent ponding or infiltration of water on or within the Landfill. As portions of the Landfill are closed, the exterior surfaces shall be graded to a minimum slope of three percent in order to promote lateral runoff of precipitation. In addition, all completed disposal areas shall be covered with a cover meeting the requirements of 27CCR.

19. Interim cover shall be maintained over all waste, at all times, except for the active face area of the disposal operations and areas where additional solid waste will be deposited within 180 days or as provided for by the performance standards adopted by CalRecycle.

20. The Discharger shall maintain and monitor the waste unit so as not to cause a measurably significant difference to exist between water quality parameters at the compliance points and the Water Quality Protection Standards (WQPS) as defined in Section 20390 of 27CCR. The point of compliance as per Section 20405 of 27CCR is the vertical surface located at the hydraulically downgradient limit of the WMU that extends through the uppermost aquifer underlying the unit at the point of earliest detection.

21. Whenever there is verified "measurably significant" evidence (as defined in 27CCR, Section 20164) or significant physical evidence of a release, the Discharger shall be prepared to implement an evaluation monitoring program (EMP) pursuant to 27CCR, Section 20425, at the direction of the Regional Water Board. In such a case, the Discharger shall continue implementing the DMP as prescribed in any SMP attached to this Order. If required, the EMP shall be implemented to determine the nature and extent of any release detected by the DMP.

22. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any DMP issued by the Executive Officer.

23. The Discharger shall install new monitoring stations to replace any monitoring wells designated as monitoring stations that are destroyed during landfill development or expansion.

24. Landfill gases shall be adequately vented, removed from the Landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration through the vadose (unsaturated) zone.

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

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

27. The Discharger shall notify the Regional Water Board at least 180 days prior to beginning any final closure activities. This notice shall include a statement that all activities will conform to the most recently approved closure plan and that the plan provides for site closure in compliance with all applicable regulations.

28. The Discharger shall submit, within 90 days after the closure of any portion of the Landfill, a closure certification report which documents that the area has been closed according to the requirements of this order, approved Final Closure Plan, and 27CCR. The Discharger shall certify under penalty of perjury that all closure activities were performed in accordance with the most recently approved closure plan as defined by CalRecycle and in accordance with all applicable regulations.

29. All design aspects related to closure activities, e.g., closure design, final cover construction, shall be under the direct supervision of a registered civil engineer or a certified engineering geologist.

30. Recirculation of leachate or landfill gas condensate in the composite lined areas shall be allowed with an acceptable operation, monitoring, and maintenance plan approved by the Executive Officer. At a minimum, the receiving cell or WMU must have a liner and LCRS designed to federal (Subtitle D) and California (27CCR) standards; the leachate generation and buildup above the liner must be monitored separately for each receiving cell or unit and is limited to 12 inches or less, and recirculation may not exceed the moisture holding capacity of the waste.

31. Discharge of leachate and/or landfill gas condensate is limited to areas of the Landfill that are equipped with a Subtitle D-compliant composite liner and LCRS. The reuse of leachate for dust control on access roads and intermediate cover is permitted provided a plan is submitted for approval by the Executive Officer, detailing how human and environmental health will be protected (Provision C. 14).

32. The Discharger shall implement a DMP, pursuant to 27CCR, Section 20420. The DMP shall be designed to identify any water quality impacts from the Landfill and demonstrate compliance with the WQPS required pursuant to 27CCR, Section 20390. The SMP attached to this Order is intended to constitute the DMP for the Landfill.

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

    a. **Constituents of Concern:** Section 20395 of 27CCR defines Constituents of Concern (COCs) as "all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit." COCs for the Landfill include monitoring parameters identified in the SMP attached to this Order, or any future amendment thereof, and all Appendix II parameters in the federal Subtitle D regulations.

    b. **Monitoring Parameters:** Monitoring parameters (MPs), a subset of the COCs, are typically the most mobile and commonly detected COCs in groundwater at the Landfill and are measured on a more frequent basis than the entire list of COCs. The MPs for the Landfill shall include, at a minimum, all constituents identified as such

in the SMP attached to this Order, or any future amendments thereof. 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. **Concentration Limits:** Concentration limits for all COCs detected at the specified monitoring wells are typically established using statistical analysis of the background data set pursuant to 27CCR Section 20400. The DMP at the Landfill relies on VOCs to detect a release from the Landfill. The high background concentrations of inorganic parameters already in the groundwater underlying the Landfill preclude the use of these parameters to detect a release. Statistical analysis of inorganic parameters is performed to identify trends in concentration; however, this data is not used for leak detection due to high background concentrations.

   As an engineered alternative, and in accordance with 27CCR Section 20080(a)(1), the Double Quantification Rule will be used to identify potential leaks from the Landfill. Alternate Concentration Limits in the form of VOC method detection limits (MDLs) and reporting limits (RLs) will be utilized. For any single sample from a downgradient monitoring point, if any two VOCs exceed their MDL (of a USEPA analytical method performed by a California-certified laboratory), or if any one VOC exceeds its laboratory RL; an initial indication of a potential release is identified and further action is initiated to assess if the exceedances result from a leak. This is considered more protective than comparison to background because any detections, rather than exceedances of background concentrations that may be greater than or equal to the MDL or RL, are investigated.

d. **Point of Compliance:** 27CCR defines the Point of Compliance (POC) as the "vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit."

e. **Monitoring Points:** 27CCR defines Monitoring Points as “a well, device, or location specified in the WDRs at which monitoring is conducted and at which the water quality protection standard applies.” Monitoring Points for the Landfill, located at the POC and at additional locations, are specified in the SMP attached to this Order, or any future amendments thereof.

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

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

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

C. PROVISIONS

1. **Compliance:** The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including 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. [CWC Sections 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, and 13350].

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

3. **Self-Monitoring Program:** The Discharger shall comply with the SMP attached to this Order. The SMP is intended to constitute a DMP pursuant to 27CCR, Section 20420 and is designed to identify significant water quality impacts from the Landfill and demonstrate compliance with the WQPS established pursuant to 27CCR, Section 20390. The SMP may be amended as necessary at the discretion of the Executive Officer.

   COMPLIANCE DATE: Immediately upon adoption of this Order

4. **Assessment of Self-Monitoring Program:** The Discharger shall complete an evaluation of the SMP to determine whether updates are necessary to account for expansion of filling on the east side of the facility (across a groundwater flow divide), as well as the 2010 changes in the WAC. The purpose of this evaluation is to determine if additional monitoring points are warranted east of the groundwater divide, and/or if the frequency of monitoring or the monitoring parameter list should be enhanced to identify potential increases in contaminant concentrations in groundwater or leachate due to the acceptance of more contaminated waste at the Landfill. The Discharger must submit a technical report, acceptable to the Executive Officer, providing the findings from this evaluation and recommendations for enhancements to the SMP, as necessary.

   COMPLIANCE DATE: December 31, 2011

5. **Storm Water Pollution Prevention Plan:** The Discharger shall submit and implement a SWPPP as required under the General Permit and must be acceptable to the Executive Officer. The SWPPP will provide the best management practices that shall be implemented at the Landfill to control stormwater runoff and reduce erosion. A copy of this report must be submitted to the landfill case manager at the Regional Water Board.

   COMPLIANCE DATE: As needed

6. **Leachate and Landfill Gas Condensate Facilities Leak or Spill Contingency Plan:** The Discharger shall submit and implement a leachate and landfill gas condensate facilities leak or spill contingency plan, acceptable to the Executive Officer and consistent with

these WDRs. The plan will describe procedures for the control of leaks or spills of leachate, landfill gas condensate, or waste contact storm water runoff from the Landfill. The procedures in the plan shall be instituted in the event of a surface leak or spill from the all associated facilities. The Discharger shall initiate its contingency action plan to stop and contain the migration of pollutants to receiving waters.

COMPLIANCE DATE: December 31, 2011

7. **Existing Leachate and Landfill Gas Condensate Storage Report:** The Discharger shall submit a report, acceptable to the Executive Officer, demonstrating that the storage facilities, e.g., tanks for leachate and condensate, are adequately designed and maintained to isolate these liquids from soil and surface waters (including the Landfill's stormwater conveyance system). This includes, but is not limited to secondary containment of tanks. Should updates be deemed necessary to isolate leachate and condensate from soil and water, the report must include a proposal.

   COMPLIANCE DATE: December 31, 2011

8. **Financial Assurance Update for Closure and Post Closure Monitoring and Maintenance:** The Discharger shall report to the Regional Water Board updates to the irrevocable fund to ensure closure and monitoring and maintenance of the Landfill during the post-closure period (sections 22207 and 22212 of 27CCR). The update must be made in accordance with the fund balance calculations provided in Section 22225 of 27CCR.

   COMPLIANCE DATE: August 31, 2011, and each year thereafter

9. **Financial Assurance Update for Corrective Action:** The Discharger shall report to the Regional Water Board updates to the irrevocable fund to ensure any corrective action and remediation actions that may be necessary as a result of current or future unforeseen releases from the Landfill. The update must be made in accordance with the fund balance calculations provided in Section 22226 of 27CCR.

   COMPLIANCE DATE: August 31, 2011, and each year thereafter

10. **Final Closure and Post-Closure Maintenance Plans:** Prior to landfill closure, the Discharger shall prepare and submit for approval a final Closure and Post-Closure Maintenance plan, acceptable to the Executive Officer, as required under 27CCR, Chapter 3, Subchapter 5, Closure and Post-Closure Maintenance.

    COMPLIANCE DATE: Prior to Closure

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

    COMPLIANCE DATE: 60 days following completion of well installation

12. **Post-Earthquake Inspection:** The Discharger shall submit a Post Earthquake Inspection Report acceptable to the Executive Officer, in the event of any earthquake generating Moment Magnitude of 6.0 or greater at or within 30 miles of the Landfill. The report shall describe the general site conditions, containment features, leachate conveyance and storage facilities, landfill gas flare, gas collection piping, levees, and stormwater control features.

    COMPLIANCE DATE: Verbally as soon as the data becomes available and in writing within 72 hours of a triggering seismic event. Any damage that may cause negative impacts to waters of the State must be reported immediately upon discovery to the Spill Hotline at 1-800-852-7550 and by sending an email to Rb2SpillReports@waterboards.ca.gov.

13. **Construction-Related Stormwater Control Plans:** For each proposed grading or development project outside of the permitted landfill boundary 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. CAS000002). The Discharger will be deemed in compliance with this Provision if another party constructing improvements on property owned by the Discharger, pursuant to an easement granted by the Discharger, has obtained coverage under this General Permit.

    COMPLIANCE DATE: 30 days prior to construction

14. **Use of Leachate for Dust Control**: The Discharger shall submit a technical report, acceptable to the Executive Officer, describing how leachate will be used to manage dust at the Landfill. It shall include, at a minimum; the locations leachate will be used, a list of analytes it will be tested for prior to use, and maximum allowable concentrations. The report must detail how human and environmental health will be protected during this activity.

    COMPLIANCE DATE: 60 days prior to activity

15. **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.

16. **Change in Ownership:** The Discharger must notify the Executive Officer in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new Discharger. The notice must include a written agreement between the existing Discharger and the new Discharger containing a specific date for the transfer of this Order's responsibility and coverage between the existing Discharger and the new Discharger. This agreement shall include an acknowledgment of which Discharger is liable for violations up to the transfer date and which Discharger is liable after the transfer date. [CWC sections 13267 and 13263]

17. **Revision:** These WDRs are subject to review and revision by the Regional Water Board. [CCR Section 13263]

18. **Report of Waste Discharge Reporting:** Where a Discharger becomes aware that it failed to submit any relevant facts in a 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. [CWC Sections 13260 and 13267]

19. **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. [CWC Section 13263(g)]

20. **Severability:** Provisions of these WDRs are severable. If any provisions of these WDRs are found invalid, the remainder of these WDRs shall not be affected. [CWC 9213]

21. **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 includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order. [CWC Section 13263(f)]

22. **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 immediately report such discharge to the Regional Water Board by calling the Spill Hotline at 1-800-852-7550 and by sending an email to Rb2SpillReports@waterboards.ca.gov. A written report shall be mailed or submitted electronically to the Regional Water Board within 5 business days. The report shall describe the following: the nature of the hazardous substance released, 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.

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

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

    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 CWC, any substances or parameters at any location. [CWC Section 13267]

24. **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 discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Water Board. [CCR Title 2 Section 223571]

25. **Endangerment of Health or the Environment:** The Discharger shall report any event of noncompliance that may endanger human health or the environment to the Regional Water Board by calling the Spill Hotline at 1-800-852-7550 and by sending an email to Rb2SpillReports@waterboards.ca.gov. A written submission to the Water Board shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer or an authorized representative may waive the written report on a case-by-case basis if the initial notification was received within 24 hours of discovery of the incident.

26. **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. City of San Jose, Local Enforcement Agency.

    The Executive Officer may modify this distribution list as needed.

27. **Duty to Comply:** The Discharger shall comply immediately, or as prescribed by the time schedule above, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including 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. (CWC sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350).

28. **Requests for Technical Reports:** All technical and monitoring reports required by this Order are requested pursuant to Section 13267 of the CWC. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the CWC.

29. **Reporting Requirements:**

a. Hardcopies:

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

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

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

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

b. Electronic Submittals:

i. The State Water Board has adopted regulations requiring electronic report and data submittal to Geotracker [http://www.geotracker.swrcb.ca.gov/].

ii. The Discharger is responsible for submitting the following via the internet:

a) Groundwater analytical data;
b) Surveyed locations of monitoring wells;
c) Boring logs describing monitoring well construction;
d) Portable data format (PDF) copies of all reports identified in 1 and 2 above (the document, in its entirety [signature pages, text, figures, tables, etc.] must be saved to a single PDF file); and
e) Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order related to stormwater and compliance with the State Water Board's General Permit.

iii. 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. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review and should therefore be submitted on CD and included with the hard copy of the report. Electronic tables shall include the following information:

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

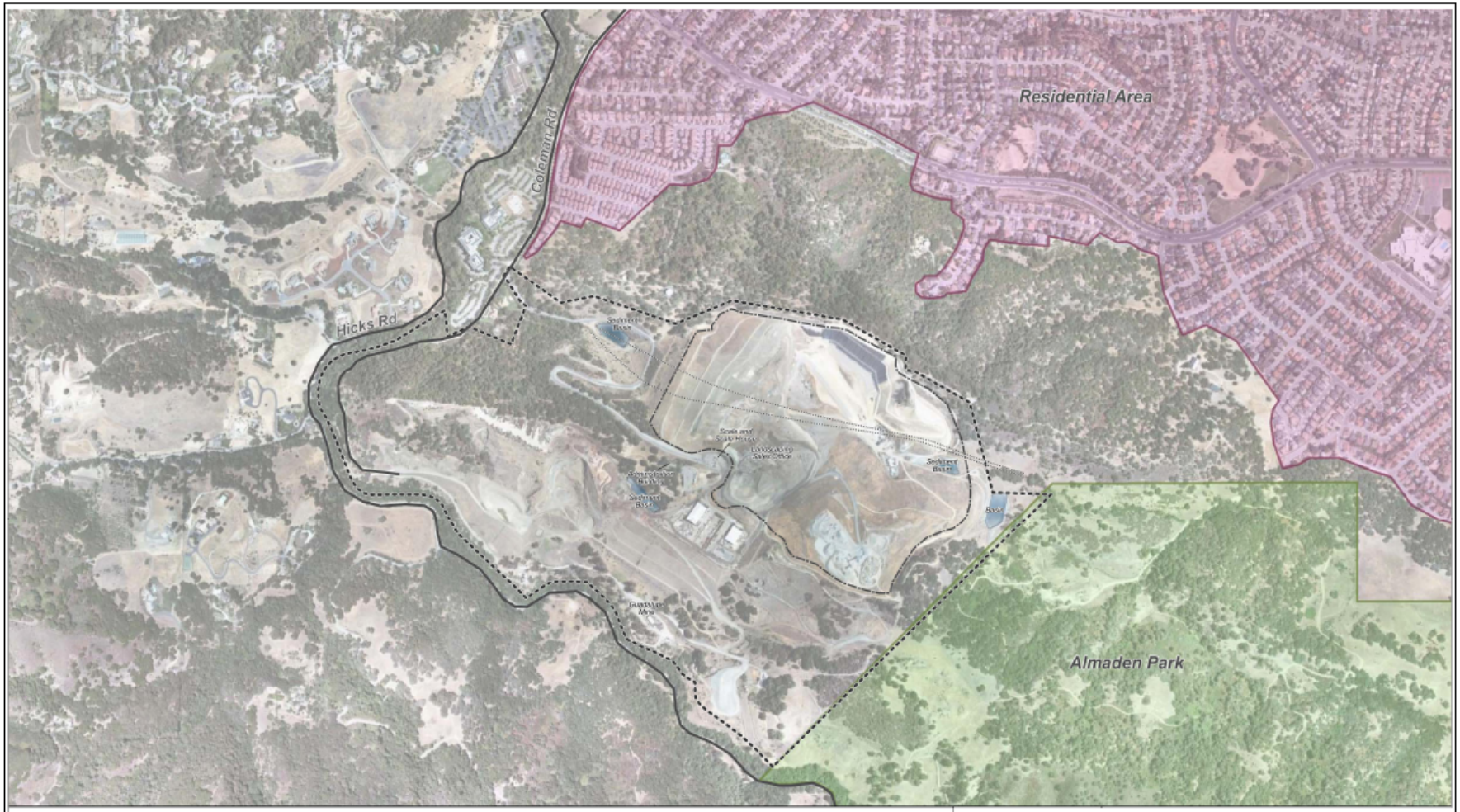
30. This Order supersedes and rescinds Order No. 01-050, except for enforcement purposes.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 8, 2011.

Digitally signed by Bruce Wolfe
Date: 2011.06.13 14:28:53 -07'00'

Bruce H. Wolfe
Executive Officer

Attachments:
Figure 1 - Site Plan
Figure 2 – Facility Operations
Figure 3 – Site Drainage Plan
Figure 4 – Module Plan
Self-Monitoring Program (Part A and Part B)



Legend

Landfill Perimeter

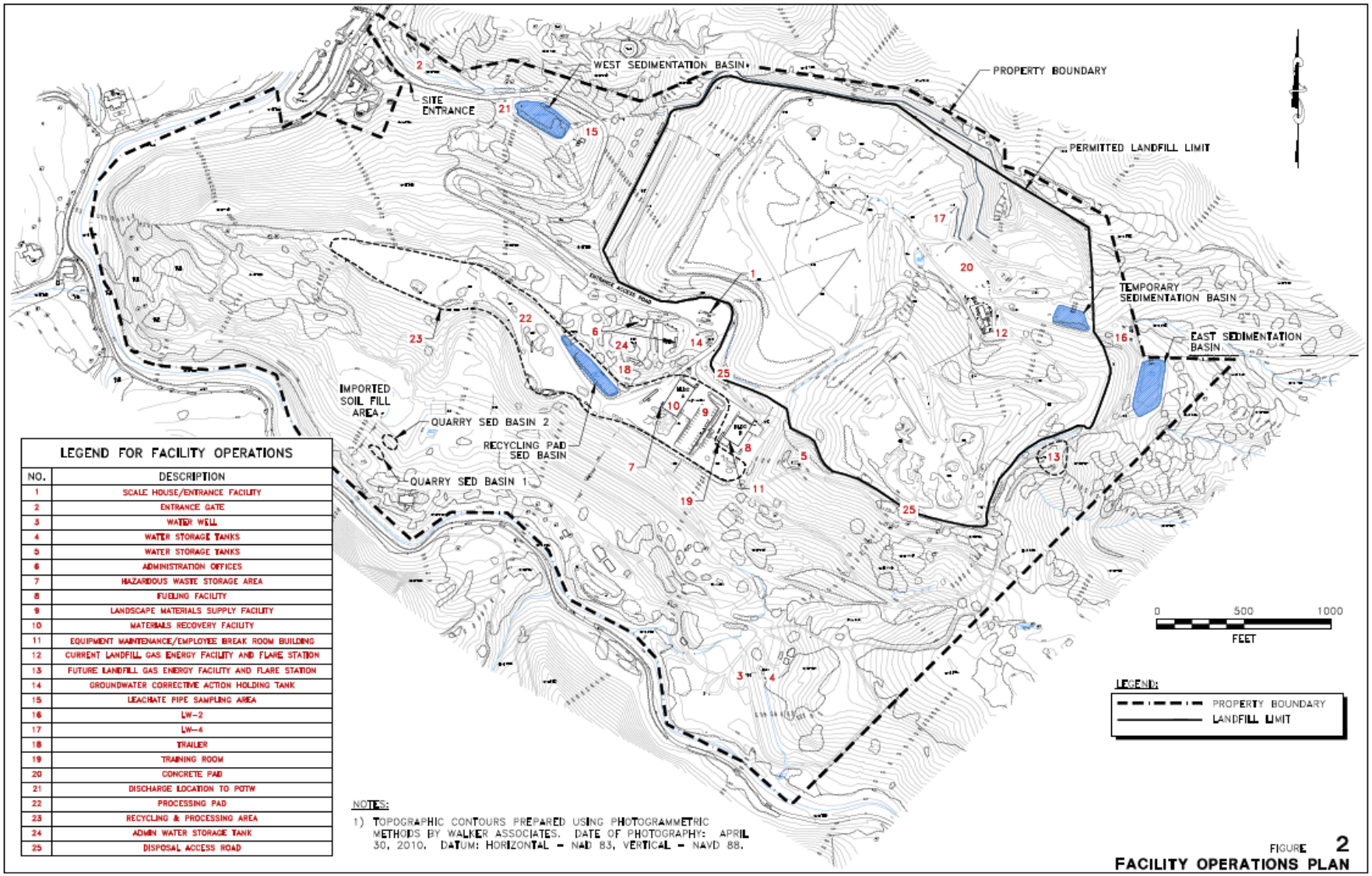
Property Boundary

N

600 300 0 600 Feet

Aerial photo source: Google Earth 30 July, 2007.

FIGURE 1
SITE PLAN



LEGEND FOR FACILITY OPERATIONS	
NO.	DESCRIPTION
1	SCALE HOUSE/ENTRANCE FACILITY
2	ENTRANCE GATE
3	WATER WELL
4	WATER STORAGE TANKS
5	WATER STORAGE TANKS
6	ADMINISTRATION OFFICES
7	HAZARDOUS WASTE STORAGE AREA
8	FUELING FACILITY
9	LANDSCAPE MATERIALS SUPPLY FACILITY
10	MATERIALS RECOVERY FACILITY
11	EQUIPMENT MAINTENANCE/EMPLOYEE BREAK ROOM BUILDING
12	CURRENT LANDFILL GAS ENERGY FACILITY AND FLARE STATION
13	FUTURE LANDFILL GAS ENERGY FACILITY AND FLARE STATION
14	GROUNDWATER CORRECTIVE ACTION HOLDING TANK
15	LEACHATE PIPE SAMPLING AREA
16	LW-2
17	LW-4
18	TRAILER
19	TRAINING ROOM
20	CONCRETE PAD
21	DISCHARGE LOCATION TO POTW
22	PROCESSING PAD
23	RECYCLING & PROCESSING AREA
24	ADMIN WATER STORAGE TANK
25	DISPOSAL ACCESS ROAD

NOTES:

1) TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: APRIL 30, 2010. DATUM: HORIZONTAL - NAD 83, VERTICAL - NAVD 88.

FIGURE 2

FACILITY OPERATIONS PLAN

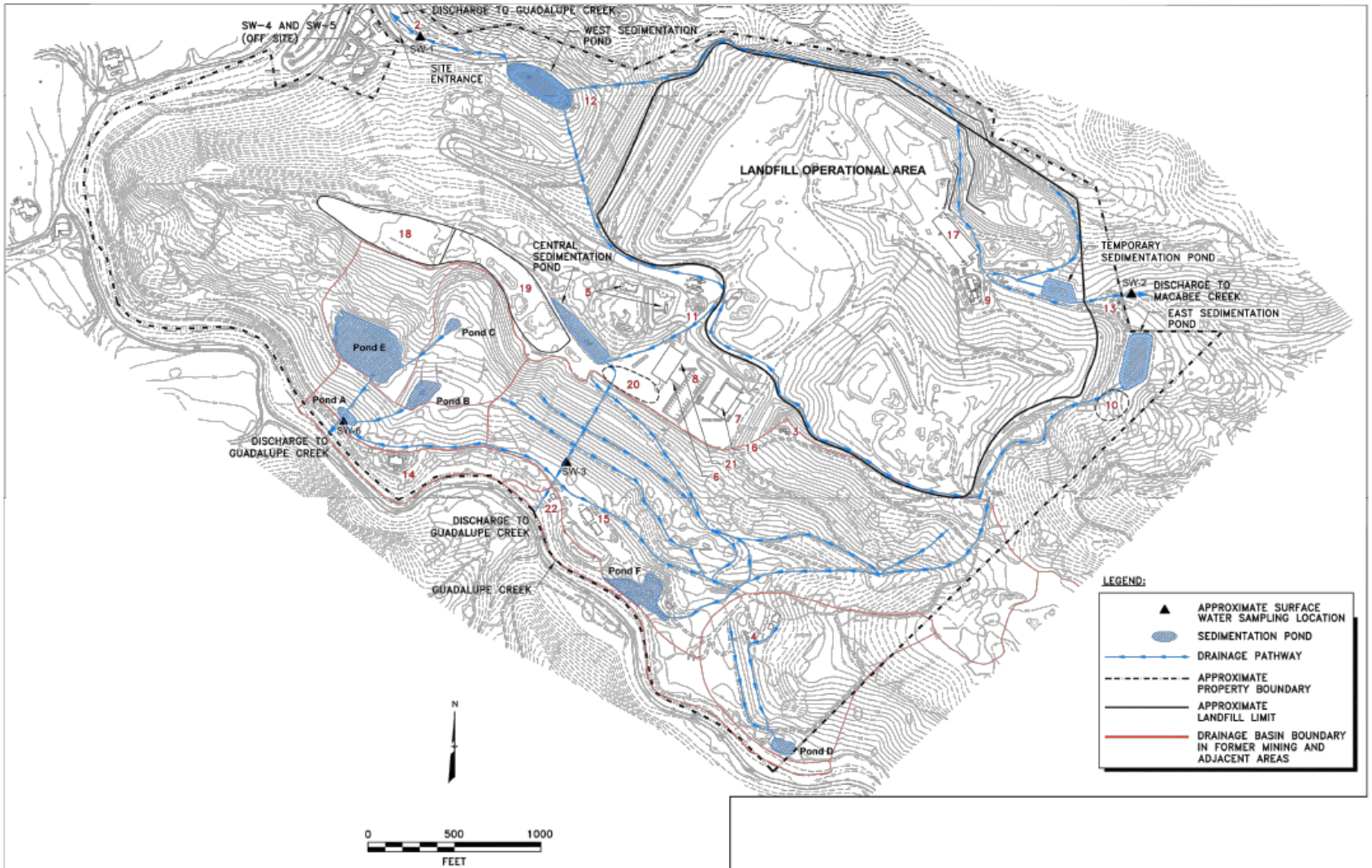


FIGURE 3
SITE DRAINAGE PLAN

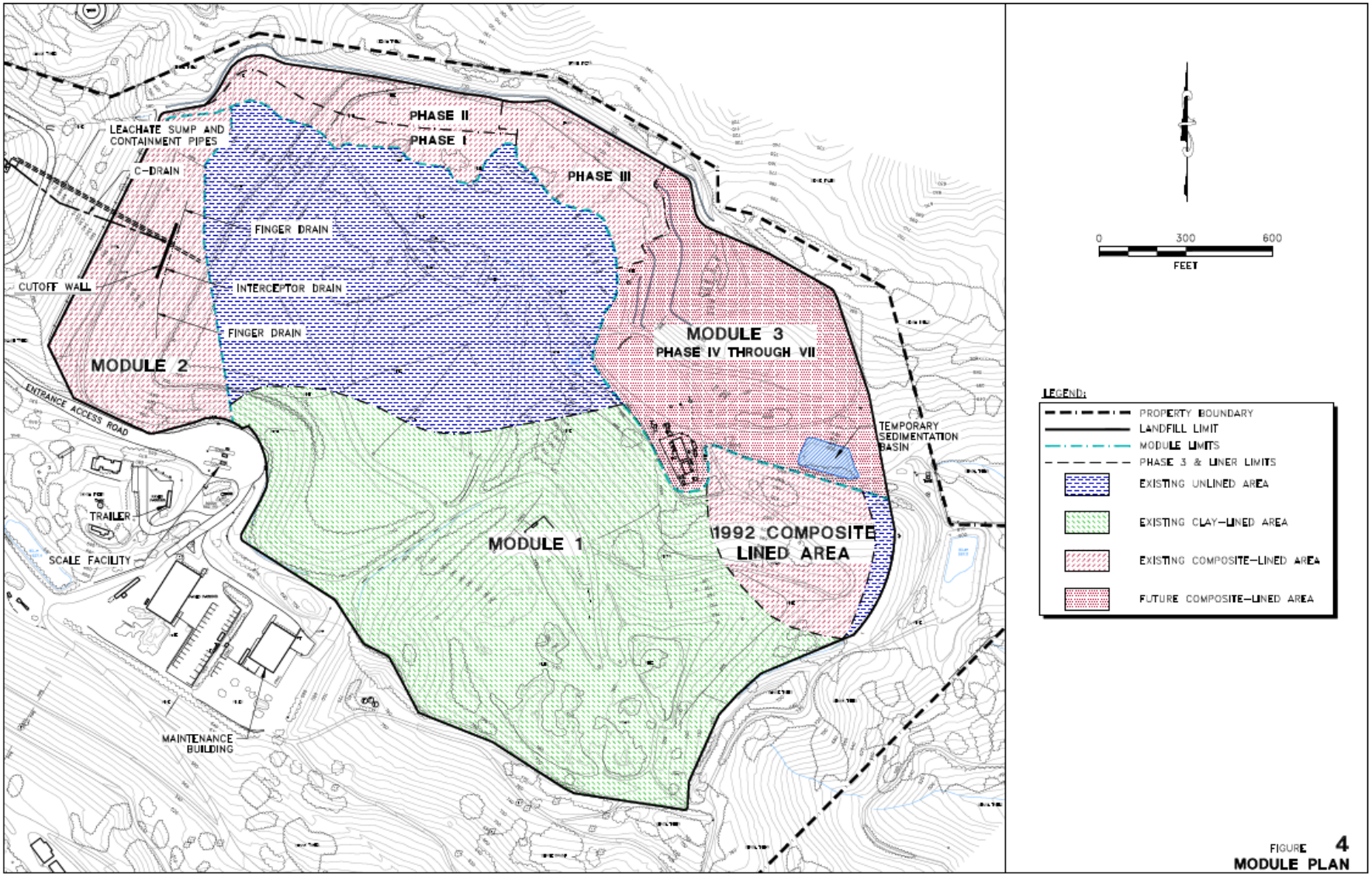


FIGURE 4
MODULE PLAN

SELF-MONITORING PROGRAM

FOR

GUADALUPE RUBBISH DISPOSAL COMPANY, Inc.
GUADALUPE RECYCLING AND DISPOSAL FACILITY
CLASS III SOLID WASTE DISPOSAL FACILITY
SAN JOSE, SANTA CLARA COUNTY

ORDER No. R2-2011-0037

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), Division 2, Title 27, Subdivision 1, Chapter 3, Subchapter 3, Sections 20380 through 20435. The principal purposes of an SMP are: 1) to document compliance with WDRs and prohibitions established by the Regional Water Board, 2) to facilitate self-policing by the discharger 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 the discharger in complying with the requirements of Title 27 of the California Code of Regulations (27CCR).

B. MONITORING REQUIREMENTS

Monitoring refers to the observation, inspection, measurement, and/or sampling of environmental media, waste management units (WMUs), containment and control facilities, and waste disposed in each WMU. 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, vadose zone, stormwater, leachate, landfill gas, landfill gas condensate and any other environmental media that may pose a threat to water quality or provide an indication of a water quality threat at the site.

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 (SAP) approved by Regional Water Board staff. Analytical testing of environmental media required by this SMP shall be performed by a California 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 refer to any surface water which actually or potentially receives surface or groundwater that pass over, through, or under waste materials or impacted soils. In this case, the

groundwater beneath and adjacent to the Landfill areas and the surface runoff from the site at the property line are considered receiving waters.

Standard Observations

Standard observations refer to observations within the limits of each WMU, at their perimeter, and of the receiving waters beyond their limits. Standard observations shall be performed according to the schedule in Table B-2 and must include:

1. Waste Management Units:

    a. Evidence of ponded water at any point on the WMU;
    b. Evidence of odors, including their presence or absence, characterization, source, and distance of travel from source; and
    c. Evidence of erosion and/or daylighted waste.

2. Perimeter of Waste Management Units:

    a. Evidence of liquid leaving or entering the WMU, estimated size of affected area and flow rate (show affected area on map);
    b. Evidence of odors, including their presence or absence, characterization, source, and distance of travel from source; and
    c. Evidence of erosion and/or daylighted waste.

3. Receiving Waters:

    a. Floating and suspended materials of waste origin, including their presence or absence, source, and size of affected area;
    b. Discoloration and turbidity: description of color, source, and size of affected area;
    c. Evidence of odors, presence or absence, characterization, source, and distance of travel form 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 refer to the inspection of all containment and control structures and devices associated with the Landfill. Facility inspections shall be performed according to the schedule in Table B-3. Containment and control facilities include the following:

1. Intermediate and final covers;
2. Stormwater management system elements such as perimeter drainage and diversion channels, ditches and downchutes, and detention and sedimentation ponds or collection tanks;
3. Landfill gas system; and
4. Leachate collection and recovery system (LCRS) elements such as leachate storage tanks, pumps and control equipment.

Quality Assurance/Quality Control (QA/QC) Sample Monitoring

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

1. Duplicate sample – one sample per 20 regular samples;
2. Field blank – one per semi-annual monitoring event; and
3. Trip blank – one per day of sampling.

Waste Monitoring

Waste monitoring shall consist of the following:

1. The weight of waste disposed at the Landfill shall be recorded on a monthly basis: municipal solid waste (MSW), construction and demolition waste, and industrial waste; including (i) asbestos, (ii) ash, (iii) treated auto shredder waste, (iv) petroleum contaminated soils, (v) lead-contaminated soils, (vi) sewage and wastewater treatment sludges with metal content, (vii) industrial sludges, and (viii) industrial filters];
2. Calculate annually the remaining landfill capacity/waste volume in place; and
3. Annually identify locations and dimensions of the fill area(s) on a map.

Leachate Monitoring

Landfill leachate shall be removed daily from the leachate collection sumps to the lowest practical level by the engineered gravity drainage system. The LCRS and I and C Drain System shall be inspected daily.

Leachate removed from the LCRS shall be discharged to the sanitary sewer or applied for dust control in accordance with a dust control plan approved by the Executive Officer. The Discharger shall record on a weekly basis the estimated volume of removed leachate and report the method of leachate disposal.

Landfill Gas Condensate Monitoring

Landfill gas condensate removed from the landfill gas collection system shall be disposed onsite by injection into the landfill gas flare, discharging into the sewer with approval by the water pollution control plant, transported offsite for disposal, or another disposal method as approved by the Regional Water Board. The Discharger shall record and summarize on a monthly basis the estimated daily volume of removed landfill gas condensate and previous 12-month throughput pursuant to the BAAQMD Title V Air permit for the condensate storage tank.

C. REPORTING REQUIREMENTS

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the CCR and this Regional Water Board's Resolution No.73-16. Self-Monitoring Reports (SMR) shall be submitted according to Table B-4, and must include, at a minimum, 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, WMUs, 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 each WMU, based upon water level elevations and pertinent visual observations; and
   c. Any other maps, figures, photographs, cross-sections, graphs, and charts necessary to visually demonstrate the appropriateness and effectiveness of sampling, monitoring, characterization, investigation, or remediation activities relative to the goals of this SMP.

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

   a. Well designation;
   b. Well location coordinates (latitude and longitude);
   c. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation);
   d. Groundwater depths;
   e. Groundwater elevations;
   f. Current analytical results (including analytical method and detection limits for each constituent);
   g. Historical analytical results (including at least the past five years in the annual report 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 quantity and types of wastes disposed of during the reporting period, and the locations of the disposal operations, if applicable;
   c. A description of the waste stream including the percentage of each waste type (e.g., residential, commercial, industrial, construction/demolition, etc.), if applicable;
   d. The signature of the laboratory director or his/her designee indicating that he/she has supervised all analytical work in his/her laboratory; and
   e. Provide a discussion of the field and laboratory results that includes the following information:

      (1) Data interpretations (including of trends, especially in the context of potential

correlation to the modified waste acceptance criteria);
(2) Conclusions;
(3) Recommendations;
(4) Newly implemented or planned investigations and remedial measures;
(5) Data anomalies;
(6) Variations from protocols;
(7) Condition of wells; and
(8) 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 SAP 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 the type of pump used, pump placement in the well, pumping rate, equipment and methods used to monitor field pH, temperature, and electrical conductivity, calibration of the field equipment, pH temperature, conductivity, and turbidity measurements, and method of disposing of the purge water;
   d. Sampling procedures, field, and travel blanks, number and description of duplicate samples, type of sample containers and preservatives used, the date and time of sampling, the name of the person actually taking the samples, and any other relevant observations; and
   e. Documentation of laboratory results, analytical methods, detection limits and reporting limits, and Quality Assurance/Quality Control (QA/QC) procedures for the required sampling.

D. CONTINGENCY REPORTING

1. Consistent with Provisions C. 22 and 25 of Order No. R2-2011-0037, the Discharger shall report any significant discharge from the disposal area immediately after it is discovered to the Regional Water Board by calling the Spill Hotline at 1-800-852-7550 and by sending an email to Rb2SpillReports@waterboards.ca.gov. 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, at a minimum, 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 measurably significant difference occurred between a SMP sample set and an approved Water Quality Protection Standard (WQPS). The written report shall indicate which WQPS(s) have been exceeded. If appropriate, the Discharger shall resample at the compliance point(s) where this difference has been found within 30 days.

3. If re-sampling and analysis confirms the earlier finding of a measurably 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 as specified in Section 20420 of 27CCR for establishment of an Evaluation Monitoring Program meeting the requirements of Section 20425 of 27CCR.

E. REPORTING REQUIREMENTS

The Discharger shall submit SMRs to Regional Water Board staff in accordance with the schedule indicated in Table B-4. Reports due at the same time maybe combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable. Reports shall be submitted in accordance with Provision 29 in the WDRs.

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 Water Board.

PART B

A. MONITORING LOCATIONS AND FREQUENCY

Monitoring locations, frequencies, parameters, and analytes are specified in Tables B-1, B-2, and B-3 of this SMP and as indicated below. Monitoring locations are shown in Figures B-1 and B-2.

1. Environmental Media

a. Groundwater:

Groundwater shall be monitored at the locations specified in Table B-1 and shown on Figure B-1. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.

b. Leachate:

Leachate shall be monitored at the locations specified in Table B-1 and shown on Figure B-1. Monitoring frequencies, parameters, and analytes shall be in accordance with Table B-1.

c. Stormwater and Surface Water:

Stormwater shall be monitored at the locations and frequencies specified in Table B-1 and shown on Figures B-1 and B-2. Monitoring parameters and analytes shall be in accordance with Table B-1.

Designated surface water stations downgradient from the Landfill shall be sampled monthly during the first qualifying storm event of in October through May.

2. Standard Observations

Standard observations shall be made within each WMU, along the perimeter of each WMU, and of the water courses and receiving waters beyond their limits. Standard observations shall be conducted at the frequency specified in Table B-2 and at the following locations:

a. "V" stations – located on the waste disposal area as delineated by an approximately 500-foot grid network; and
b. "P" stations – located at equidistant intervals not exceeding 1,000 ft around the perimeter of the waste area.

A map, showing visual (V) and perimeter (P) compliance points, shall be included in the SMRs.

3. **Facilities Inspections**

The Discharger shall inspect all containment and control structures and devices associated with the Landfill to ensure proper and safe operation. Facility inspections shall be conducted at the locations and frequencies specified in Table B-3.

4. **QA/QC Samples**

The QA/QC samples shall be analyzed for VOCs (field blank and trip blank) or for 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-4. Reports due at the same time maybe combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable.

Attachments:

SMP Figure B-1 Groundwater, Leachate, and Surface Water Monitoring Locations
SMP Figure B-2 Vicinity Map with Surface Water Monitoring Locations
SMP Table B-1 Water Quality Monitoring Requirements
SMP Table B-2 Standard Observations
SMP Table B-3 Facility Inspections
SMP Table B-4 Reporting Requirements

Table B-1. Water Quality Monitoring Requirements

	Detection Monitoring Groundwater Monitoring Wells							Corrective Action Monitoring Wells			Leachate Monitoring Points and Drains					Stormwater Monitoring Points				
Parameter (Method)	G-3A	G-4	G-6B	G-9A	G-9B	G-9C	QC[1]	G-8	G-10	G-11R	L-1	L-2	L-3	C-Drain	I-Drain	SW-1	SW-2	SW-3	SW-4	SW-5
Field Measurements																				
Water Elevation	Q	Q	Q	Q	Q	Q	-	SA	SA	SA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Electrical Conductivity	Q	Q	Q	Q	Q	Q	-	SA	SA	SA	SA	SA	SA	SA	Q	M	M	M	M	M
pH	Q	Q	Q	Q	Q	Q	-	SA	SA	SA	SA	SA	SA	SA	Q	M	M	M	M	M
Temperature	Q	Q	Q	Q	Q	Q	-	SA	SA	SA	SA	SA	SA	SA	Q	-	-	-	-	-
Dissolved Oxygen	Q	Q	Q	Q	Q	Q	-	SA	SA	SA	SA	SA	SA	SA	Q	M	M	M	M	M
Flow Rate/Volume/Quantity	NA	NA	NA	NA	NA	NA	-	-	-	-	Quan.	Quan.	Quan.	Quan.	Quan.	-	-	-	-	-
Laboratory Analyses																				
Chloride (300.0A)	Q	Q	Q	Q	Q	Q	Q	-	-	-	-	-	-	-	-	M	M	M	-	-
Nitrate (353.2)	Q	Q	Q	Q	Q	Q	Q	-	-	-	-	-	-	-	-	M	M	M	-	-
Total Dissolved Solids (160.1)	Q	Q	Q	Q	Q	Q	Q	-	-	-	-	-	-	-	-	M	M	M	-	-
Sulfate (300.0A)	Q	Q	Q	Q	Q	Q	Q	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs (8260B)	Q	Q	Q	Q	Q	Q	Q	SA	SA	SA	SA	SA	SA	SA	Q	-	-	-	-	-
MTBE (8260B)	Q	Q	Q	Q	Q	Q	Q	SA	SA	SA	SA	SA	SA	SA	Q	-	-	-	-	-
Total Organic Carbon (415.1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M	-	-
Total Suspended Solids (160.2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M
Iron (6010B)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M
Pesticides and PCBs (608)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-
Mercury (7470A) [2]	-	-	-	-	-	-	-	-	-	-	SA	SA	SA	SA	Q	-	-	-	-	-
Metals [3]	-	-	-	-	-	-	-	-	-	-	SA	SA	SA	SA	Q	-	-	-	-	-
Stormwater Metals [4]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	-
Constituents of Concern [5]	5-year	5-year	5-year	5-year	5-year	5-year	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Quarterly water levels only in wells G-6A, G-15, G-16, P-1, P-4, P-5, P-6, P-13, P-14, P-15; well G-7 was destroyed in June 2001; well G-12 was destroyed in December 2004.

A - Annually, first stormwater event of rainy season - October to May.

M - Monthly sampling of first qualifying storm event of each month of the rainy season - October to May.

VOCs - Volatile Organic Compounds analyzed by EPA Method 8260B, Appendix I list of compounds.

MTBE - methyl tert-butyl ether

SA - Monitored Semi-Annually during first and third quarters

Q - Monitored Quarterly

NA - Not Applicable

Metals filtering: All groundwater samples to be field filtered for dissolved metals; All leachate points, drains, and stormwater samples to be unfiltered for total metals.

[1] Quality Control samples (one duplicate well sample; field and trip blanks for VOCs and MTBE).

[2] Mercury listed separately, in addition to metals [revised in 01/28/02 RWQCB clarification response]

[3] Metals = copper (6010B), lead (6010B), nickel (6010B), and zinc (6010B)

[4] Stormwater metals = arsenic (6010B), cadmium (6010B), chromium VI (7196A), copper (6010B), lead (6010B), mercury (7470A), nickel (6010B), silver (6010B), and zinc (6010B).

[5] Constituents of Concern = Semi-volatile organic compounds (8270), metals (California Title 22 list), organophosphorus compounds (8141), chlorinated herbicides (8151).

Next 5-year Constituents of Concern sampling event will occur during Third Quarter 2011.

Table B-2. Standard Observations

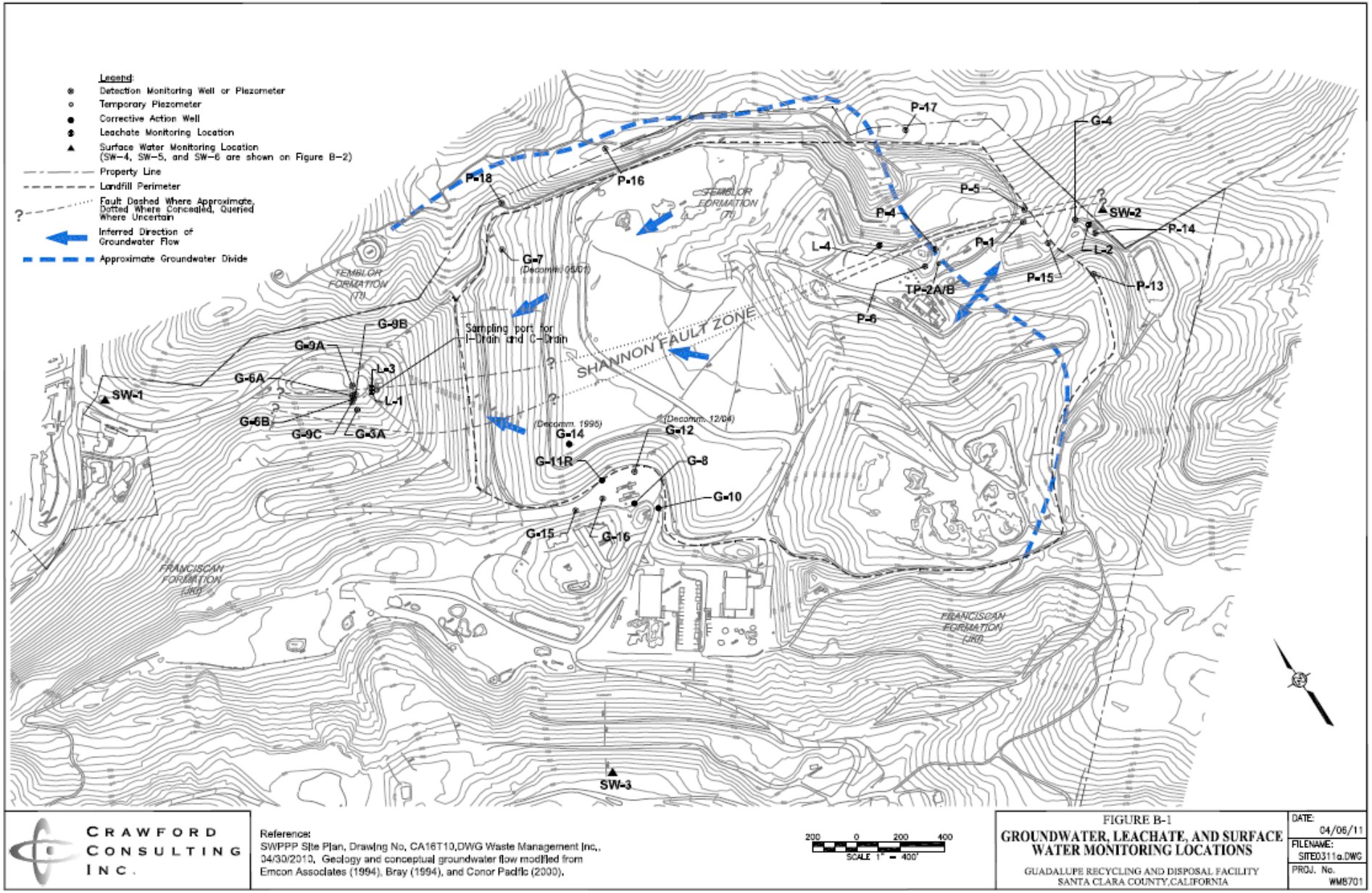
Station	Frequency
V-Station (Landfill Interior)	Weekly
P-Station (Landfill Perimeter)	Weekly
Receiving Waters	Weekly

Table B-3. Facility Observations

Containment and Control Facilities	Frequency
Leachate Collection and Removal System	Daily
Landfill Gas Condensate System	Daily
Storm Water Management System	Weekly

Table B-4. Reporting Requirements

Environmental Media Monitoring (Groundwater and Surface Water)	Semi-annual/Annual Reports Due April 30 and October 31/ April 30
Leachate, I and C Drain Monitoring	Semi-annual Reports Due April 30 and October 31
Waste Monitoring, Standard Observations, and Facility Inspections	Semi-annual Reports Due April 30 and October 31



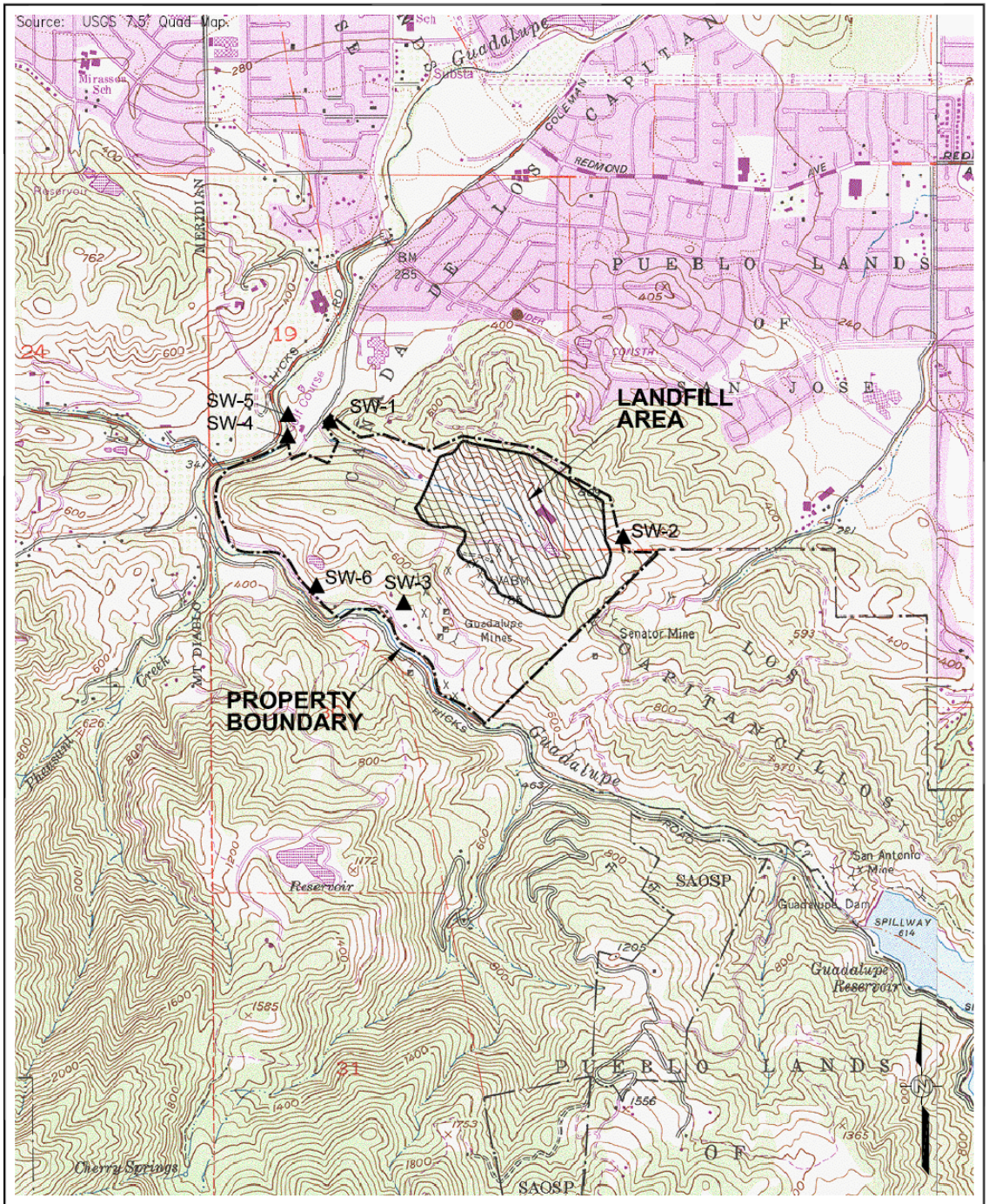
CRAWFORD CONSULTING INC.

Reference:
SWPPP Site Plan, Drawing No. CA16T10,DWG Waste Management Inc., 04/30/2010. Geology and conceptual groundwater flow modified from Emcon Associates (1994), Bray (1994), and Conor Pacific (2000).

200 0 200 400
SCALE 1" = 400'

FIGURE B-1
GROUNDWATER, LEACHATE, AND SURFACE WATER MONITORING LOCATIONS
GUADALUPE RECYCLING AND DISPOSAL FACILITY
SANTA CLARA COUNTY, CALIFORNIA

DATE: 04/06/11
FILENAME: SITE0311a.DWG
PROJ. No. WMB701



CRAWFORD CONSULTING INC.

FIGURE B-2
SURFACE WATER MONITORING LOCATIONS

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SANTA CLARA COUNTY,CALIFORNIA

DATE: 03/31/11
FILENAME: SITE0311a.DWG
PROJ. No. WM8701