STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CORRECTIVE ACTION PROGRAM WASTE DISCHARGE REQUIREMENTS
ORDER NO. R4-2008-xxxx

FOR

BROWNING-FERRIS INDUSTRIES OF CALIFORNIA, INC.
(SUNSHINE CANYON CITY/COUNTY LANDFILL)
(File No. 58-076)

TENTATIVE

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), finds:

BACKGROUND

1. Browning-Ferris Industries of California, Inc. (BFI) (Discharger), an Allied Waste Industries company, owns and operates the Sunshine Canyon Landfill (Facility) at 14747 San Fernando Road, Sylmar, California. The Facility is located to the west of the intersection of the Golden State (I-5) and the Antelope Valley (SR-14) freeways, within portions of Sections 23, 24, 25, and 26 of Township 3 North (T3N), Range 16 West (R16W) of the San Bernardino Base and Meridian, and is centered at latitude 34° 19' 45"N and longitude 118° 30' 48"W (Figure 1).

2. The Facility straddles the border between the City of Los Angeles and unincorporated Los Angeles County and includes two distinct Class III municipal solid waste (MSW) management units, referred to as the Sunshine Canyon City Landfill (City Landfill) and the Sunshine Canyon County Extension Landfill (County Extension Landfill), respectively. The City Landfill is located entirely within the City of Los Angeles, while the County Extension Landfill is to the northwest of the City Landfill, within the unincorporated territory of Los Angeles County (Figure 2).

3. The City Landfill consists of a closed City Landfill Unit 1 that began accepting MSW in 1958 and ceased accepting waste in 1991, and the active City Landfill Unit 2 that has been operating since 2005. The City Landfill is currently regulated under Waste Discharge Requirements (WDRs) included in Order No. R4-2003-0155 adopted by this Regional Board on December 4, 2003. The County Extension Landfill has been in operation since 1996 and is currently regulated under WDRs included in Order No. R4-2007-0023 adopted by this Regional Board on April 5, 2007.

4. The Discharger has proposed an expansion, referred to as the City/County Landfill (Landfill), that will connect the City and County Extension landfills and create a single landfill footprint within Sunshine Canyon (Figure 3). The proposed expansion will allow the Discharger to fill the space between the two existing landfill units and increase the capacity of the site by approximately 90.2 million cubic yards. The projected life of the Landfill will be extended from approximately 2013 to 2037. This Order approves the proposed expansion, combines the requirements of Orders No. R4-2003-0155 and No. R4-2007-0023, and allows the Discharger to operate the Facility under a single set of WDRs.

5. In accordance with the California Code of Regulations, title 27 (27 CCR), section 21585, the Discharger submitted a Joint Technical Document (JTD) to this Regional Board to apply for revised WDRs for the consolidated Landfill. The JTD contains an overview of the project and includes descriptions of the environmental setting, existing facilities, design, environmental control systems,

stability analyses, facility operations, permit requirements, construction quality assurance plans, and preliminary closure and post-closure maintenance plans for the proposed expansion.

6. Throughout the history of the Facility, the landfill units have been constructed to comply with changing standards: City Landfill Unit 1 (from 1958 to 1991) was not equipped with a liner and leachate collection and removal system (LCRS); Phases I through IV of the County Extension Landfill (from 1996 to 2007) were constructed with a single composite liner system; while City Landfill Unit 2 (since 2003) and Phase V of the County Extension Landfill (since 2007) have been constructed with double composite liner systems. This Order requires that all future development of the Landfill be constructed with double composite liner systems (Figure 4).

7. Future construction of the Landfill will be developed in five phases (Phases CC-I through CC-V, Figure 3). A portion of the Landfill will be developed on the slopes of the closed City Landfill Unit 1. This Order requires that final designs and construction plans for each phase of landfill construction be reviewed and approved by Regional Board staff prior to installation and use.

8. The Facility has been developed as "canyon cut-and-cover" landfill units. Incoming waste is spread and compacted in approximately one- to two-foot thick layers, generally placed in lifts up to 20 feet high, and covered with a minimum of six inches of compacted daily cover soil or an alternative daily cover (ADC) (e.g., non-hazardous contaminated soils, tarps, green waste, etc.) that is approved by the California Integrated Waste Management Board (CIWMB) and its Local Enforcement Agency (LEA) under section 20690 of 27 CCR.

9. The Discharger implements a load-checking program at the Facility to prevent the disposal of hazardous wastes, designated wastes, or other unacceptable materials. Intercepted hazardous materials are temporarily stored in a dedicated hazardous waste storage area and disposed of at an appropriate hazardous waste facility according to hazardous waste laws.

10. The County Extension Landfill is currently permitted to accept 6,600 tons per day of MSW with a maximum acceptance rate of 36,000 tons per week while the City Landfill is currently permitted to accept 5,500 tons/day or 30,000 tons/week of MSW. After consolidation, the Landfill will be permitted to accept a maximum of 12,100 tons/day or 66,000 tons per week of MSW.

11. The JTD includes Preliminary Closure and Post-closure Plans. In conformance with Section 21090(a) of 27 CCR, the Discharger has proposed a final cover system that includes (from bottom to top) a minimum two-foot thick foundation layer, an optional geocomposite gas drainage layer, a minimum one-foot thick low hydraulic conductivity layer, a 40-mil linear low density polyethelene (LLDPE) geomembrane, a geocomposite drainage layer, and an one-foot thick erosion-resistant layer (Figure 5). In accordance with section 20080(b)(1) of 27 CCR, this Regional Board may approve alternative final cover systems to accommodate regional and site specific conditions.

12. To evaluate the seismic stabilities of the final cover at some critical slopes of the County Extension Landfill, Order No. R4-2007-0023 included a "reopener" (Section M.1.) that stated: "*Regional Board staff shall convene a workgroup that includes other State, County and local regulatory agencies, the Discharger, and concerned groups and citizens to evaluate the seismic stability properties of the proposed final cover system, or any alternative final cover system proposed under Sections 20080(b) and 21090(a) of 27 CCR for the County Extension Landfill. After consideration of comments offered by the workgroup, the Discharger shall submit a conceptual final cover design for the County Extension Landfill for the Regional Board to approve. The Regional Board will revise these requirements within two years from the date of this Order if the design of a conceptual final cover system is not approved before such date. In the interim, no landfill construction shall be*

conducted within the proposed Phases VI and VII areas of the Landfill." With the consolidation of the City and County Extension Landfills, the final slopes of concern are eliminated because the space between the two existing landfills will be filled with wastes. . As such, implementation of the reopener is unnecessary and therefore not required.

13. California Water Code (CWC) section 13263 provides that all WDRs shall be reviewed periodically and, upon such review, may be revised by the Regional Board to comply with changing State or Federal laws, regulations, policies, or guidelines.

14. This Order includes the attached definition of terms and acronyms (Attachment A).

REGULATORY REQUIREMENTS

15. Updated state regulations governing landfills are contained in 27 CCR, which became effective on July 18, 1997. These revised regulations clarified the roles and responsibilities of the CIWMB and the California State Water Resources Control Board (State Board), as well as Regional Boards, in regulating MSW disposal facilities. The 27 CCR regulations combine prior disposal site/landfill regulations of the CIWMB and State Board that were maintained in titles 14 and 23 of the California Code of Regulations. The requirements in this Order, as they are met, are in conformance with the relevant regulations of 27 CCR, relevant regulations contained in part 258 of title 40 of the Code of Federal Regulations (40 CFR), and the CWC.

16. On June 17, 1993, the State Board adopted Resolution No. 93-62, directing each Regional Board to revise the WDRs of each active MSW landfill in its respective region to comply with federal MSW regulations in 40 CFR part 258 that are more stringent than California State regulations. To comply with Resolution No. 93-62, this Regional Board adopted Order No. 93-062 (also known as the Super Order) on September 27, 1993. Applicable requirements in the Super Order have been incorporated into this Order.

17. Pursuant to section 402(p) of the Clean Water Act and 40 CFR parts 122, 123, and 124, the State Board adopted a National Pollutant Discharge Elimination System (NPDES) General Permit to regulate storm water discharges associated with industrial activities in California (State Board Order 97-03-DWQ). Storm water runoff from the Facility is regulated under the general NPDES permit (WDID No. 4 19S001306, enrolled on March 27, 1992). The Discharger is implementing a Storm Water Pollution Prevention Plan (SWPPP) at the Facility as required by the general NPDES permit.

ENVIRONMENTAL SETTING

18. The Facility is situated at the eastern end of the Santa Susana Mountains and the northern edge of the San Fernando Valley. Climatic conditions at the Facility are semi-arid. Rainfall typically occurs between November and April with little rainfall during the summer months. Average annual precipitation in the area is approximately 22.0 inches, with annual precipitation ranging from a high of 55.8 inches to a low of 10.2 inches. Average annual evaporation in the area is approximately 80 inches.

19. The Facility is surrounded by unincorporated areas of Los Angeles County to the north and west, and the communities of Granada Hills and Sylmar to the south and east. Land uses within 1,000 feet of the Facility include undeveloped mountainous terrain to the south and southwest, an active oil production area to the south, freeways to the north and northeast, and open space and residential

areas to the south and east. O'Melveny Park of the City of Los Angeles is located to the west and southwest of the landfill property.

20. Three oil fields have been developed adjacent to the Facility site. The Newhall, Aliso Canyon, and Cascade Fields are located within one mile of the Landfill property boundary. The Cascade Oil Field is located within 1,000 feet of the southwestern portion of the Facility. Approximately 96 oil/gas wells have been identified within a one-mile radius of the project site. Abandoned oil wells are occasionally encountered during development of the Facility. The Discharger is required to decommission such abandoned oil wells in a manner protective of water quality as they are encountered.

21. The Facility is underlain predominantly by marine sedimentary rocks of the Upper Miocene to Lower Pliocene-age Towsley Formation. The Pliocene-age Pico Formation outcrops in limited areas near the eastern most portion of the Facility. The Towsley and Pico Formation bedrock consist primarily of siltstone and fine-grained sandstone inter-bedded with lenses of coarse-grained sandstone and conglomerate. The bedrock units range from relatively fresh to highly weathered, with the degree of weathering generally decreasing with increasing depth below ground surface.

22. Bedrock units at the site are locally overlain by younger alluvial deposits including alluvium, colluvium, and/or landslide debris. The alluvial deposits occur primarily along the axis of the various sub-canyons that comprise Sunshine Canyon and consist of varying mixtures of unconsolidated sand, gravel, silt, and clay. The alluvial deposits are locally up to 30 feet thick. Substantial thickness of artificial fill has been placed in some areas of the Facility.

23. The bedrock formations beneath Sunshine Canyon are folded into a series of anticlines and synclines that plunge to the southeast. Near the southern margin of the Canyon, the bedrock units are truncated by several east-west trending faults, which dip steeply to the north beneath the southern portion of the Facility. A second fault zone ("Fault A") is located north of the City Landfill within the County Extension Landfill property. Several crude oil seeps associated with this fault zone were noted during previous construction of the Landfill. Faults mapped at the Facility have been determined to be formed during the mid-Pleistocene period (i.e., 750,000 to 125,000 years ago).

24. There are no known active faults within the Facility area. Active faults are defined as Holocene epoch faults that have exhibited movement in the last 11,000 years. The closest major active faults to the site are the Santa Susana Fault, which is about half a mile to the south of the site, and the San Fernando-Sierra Madre Fault, which is about two miles to the southeast of the site. The most prominent active fault in the area, the San Andreas Fault, is about 24 miles to the northeast.

25. 27 CCR, section 20370, requires that Class I and Class II solid waste management units be designed to withstand a maximum credible earthquake (MCE) and Class III units be designed to withstand a maximum probable earthquake (MPE) without damage to the foundation or to the structures which control leachate, surface drainage, erosion, or gas. This Regional Board requires that Class III landfills in this region to be designed to accommodate an MCE event.

26. The Seismic Hazard Zone Map for the Oat Mountain 7.5 minute quadrangle, released February 1, 1998, by the California Division of Mines and Geology Seismic Hazards Mapping Program, indicates that the Facility is located outside identified liquefaction zones, but within areas with a previous occurrence of landslide movement, or potential for permanent ground displacements, that requires mitigation. Landslide deposits have been identified within the footprint of the Facility. This

Order requires the Discharger to properly remove and mitigate such landslide deposits prior the installation of landfill liner systems.

27. The Facility is not underlain by a major groundwater basin. However, the northern boundary of the San Fernando Groundwater Basin, an important groundwater resource in this Region, is located approximately one mile to the south of the Facility. Pollutants released from the Facility could potentially be carried out of the canyon and reach the groundwater basin. As part of the Corrective Action Program required by Regional Board Order R4-2003-0155 for the Sunshine Canyon City Landfill, the Discharger has installed an impermeable subsurface barrier (cutoff wall) across the mouth of the Sunshine Canyon. Groundwater is currently being extracted from behind the cutoff wall and treated for on-site use. Such operations minimize the potential for contaminated groundwater to leave the canyon and impact groundwater quality in the San Fernando Groundwater Basin.

28. Groundwater beneath the Facility occurs in two main zones: a shallow, unconfined water bearing zone consisting of alluvial deposits and the upper weathered portion of the bedrock, and a deeper, locally confined water-bearing zone consisting primarily of relatively fresh bedrock. Hydraulic conductivity of bedrocks beneath Sunshine Canyon ranges from 10^{-3} to 10^{-9} centimeters per second (cm/sec) with values increasing with greater weathering and fracturing density. The hydraulic conductivity of the alluvial deposits is estimated to be from 10^{-2} to 10^{-4} cm/sec.

29. The majority of groundwater flow beneath the Facility occurs within alluvium and weathered bedrock near canyon bottoms, generally following pre-landfill construction topography. Groundwater flow within the canyon is generally to the southeast towards the mouth of Sunshine Canyon and the velocity of groundwater flow within the alluvium is estimated to be from 0.04 to 4.4 ft/day.

30. There is an overall transition with depth from mostly Ca-$MgSO_4$ groundwater to mostly Na-HCO_3 groundwater at the Facility. The majority of the groundwater within the shallow water-bearing zone is a Ca-$MgSO_4$ type water with total dissolved solids (TDS) ranging from 2,000 to 4,000 mg/L. Groundwater within the unweathered bedrock zone is primarily a Na-HCO_3 type water with TDS ranging from 1,000 to 3,000 mg/L. Because of high concentrations of salts and low yield, groundwater at the site is currently not used as a drinking water source.

31. Geographic variation of groundwater quality is substantial within the Facility. In general, concentrations of dissolved solids, particularly chloride, tend to be higher towards the mouth of Sunshine Canyon. A study conducted by the Discharger between October 1994 and August 1996 ("chloride investigation") concluded that the observed differences in chloride concentrations between upgradient and downgradient groundwater monitoring wells at the Facility were likely the result of upward migration of oilfield brine along fault fractures to shallow groundwater.

32. The Facility is located within the Los Angeles River Watershed Basin. Surface water runoff generated at the Facility is retained temporarily in a sedimentation basin at the mouth of Sunshine Canyon before being discharged to a flood control channel leading to the Los Angeles River. The Los Angeles Reservoir, which stores water from the Los Angeles Aqueduct, is located approximately 1.5 miles to the southwest of the Facility.

33. The Facility is identified as being in a Zone C area on the Flood Insurance Rate Map (FIRM) by the Federal Emergency Management Agency (FEMA) sponsored by the National Flood Insurance Program. Zone C includes areas of minimal flooding.

ENVIRONMENTAL MONITORING AND CONTROL SYSTEMS

34. Groundwater monitoring at the Facility started at the City Landfill in 1986 and the County Extension Landfill in 1995. Current groundwater monitoring activities are required under Monitoring and Reporting Program (M&RP) No. CI-2043, which is included in Regional Board Order No. R4-2003-0155, and M&RP No. CI-7059, which is included in Regional Board Order No. R4-2007-0023. This Order requires the Discharger to implement a unified groundwater monitoring program, which will be identified as M&RP No. CI-2043, at the Landfill (Attachment T).

35. The existing water quality monitoring network at the Facility includes three up-gradient monitoring wells (CM-9R3, CM-10, and CM-11R) and three down-gradient wells (CM-15R, CM-16R, and CM-17R) at the County Extension Landfill and 12 down-gradient monitoring wells (MW-1, MW-2A, MW-2B, MW-5, MW-6, MW-9, MW-13R, MW-14, DW-1, DW-2, DW-3, and DW-4). Monitoring wells CM-15R, CM-16R, and CM-17R are located between the County Extension Landfill and the City Landfills and will be eliminated with the construction of the landfill liner system in the area. Locations of the groundwater monitoring wells are displayed in the M&RP No. CI-2043.

36. During the construction of the County Extension Landfill and City Landfill Unit 2, the Discharger installed subdrain systems to capture groundwater seepage under the landfill's liner system. Liquid collected at the outlets of these subdrains has been sampled to monitor groundwater quality within the vadose zone (unsaturated zone). The subdrain system will be extended as necessary with the development of the Landfill. In addition to the subdrain system, a lysimeter (LY-6) has been installed underneath the leachate collection sump at the County Extension Landfill and another lysimeter (LY-7) has been installed between the primary and secondary liner system at the City Landfill. Liquid samples collected at the lysimeters are used for vadose zone groundwater monitoring.

37. As required by the South Coast Air Quality Management District (SCAQMD), the Discharger has installed 31 gas probes within the unsaturated zone around the Facility for field methane gas monitoring. These gas probes are utilized to monitor volatile organic compounds (VOCs) in landfill gas (LFG) that may cause groundwater contamination. The network will be modified as necessary with the development of the Landfill.

38. LFG at the Facility is collected by a network of horizontal and vertical LFG collection wells and collection pipelines, and is combusted at two LFG flare stations onsite in accordance with SCAQMD regulations. LFG condensate is collected from sumps located at various low points in LFG header pipes.

39. The Facility is equipped with an on-site leachate treatment plant. Leachate and gas condensate collected at the Facility are treated before being used for dust control or irrigation at the site, or discharged to the sanitary sewer system in accordance with requirements established by the City of Los Angeles Industrial Waste Division for the Facility. Treatment processes at the plant consist primarily of air stripping and carbon adsorption to remove organic compounds and chlorination to reduce concentrations of sulfides. In accordance with sections 20200(d) and 20340(g) of 27 CCR, this Order allows the Discharger to reintroduce landfill leachate and gas condensate to the Landfill in areas equipped with a double composite liner system.

KNOWN CONTAMINATION AND CORRECTIVE ACTION PROGRAMS

40. Both Order No. R4-2003-0155 and Order No. R4-2007-0023 contain a corrective action program (CAP) that require the Discharger to remediate known contamination at the Facility. Requirements of those CAPs have been incorporated into this Order.

41. At the City Landfill, VOCs, 1,4-dioxane, and elevated concentrations of TDS have been detected in a number of shallow groundwater monitoring wells. These pollutants are believed to be originated from the unlined City Landfill Unit 1. As required by the CAP for the City Landfill, the Discharger installed an impermeable subsurface barrier (cutoff wall) across the mouth of Sunshine Canyon in 2004. Contaminated groundwater is extracted from behind the cutoff wall, treated as necessary, and either used for irrigation or dust control on-site or discharged to the Los Angeles City sanitary sewer system. Such operations minimize the potential for contaminated groundwater to leave the site. The most recent groundwater monitoring data (for year 2007) indicates that VOCs are no longer detectable in groundwater wells down gradient to the cut-off wall. However, 1,4-dioxane is still detected (ranging from 7.8 to 18 ug/L) in several shallow groundwater monitoring wells (MW-1, MW-5, and MW-13R) down gradient to the cutoff wall, although concentrations have declined from the peak high level in 2005 (up to 36 ug/L in MW-1).

42. At the County Extension Landfill, groundwater collected from the subdrain system (subdrain water) has been impacted by VOCs since 2000. Such contamination is believed to have originated from landfill gas entering the subdrain system. The CAP for the County Extension Landfill requires the Discharger to collect, treat as necessary, and properly manage VOC-impacted subdrain water. The treated subdrain water is either used on-site for dust control or discharged to the Los Angeles City sanitary sewer system. The most recent analytical data (for February 2007 to June 2008) indicates that several VOCs are still detected in water samples from subdrains A, B, and C at the County Extension Landfill. VOCs that are consistently detected at concentrations above their California maximum contamination levels (MCL) are summarized in the following table.

Constituent	Concentration Range* (ug/L)	Average Concentration (ug/L)	MCL (ug/L)
Benzene	0.9-7.4	3.5	1
cis-1,2-dichloroethene (cis-1,2-DCE)	0.3-16	9.2	6
Vinyl chloride	0.2-2.5	1.7	0.5

* Data obtained in 13 sampling events from February 2, 2007 to June 24, 2008.

43. Pursuant to 27 CCR section 20380(b), this Regional Board adopted Order No. R4-2007-0046 on December 6, 2007 requiring the Discharger to obtain and maintain assurances of financial responsibility for initiating and completing corrective actions for all known or reasonably foreseeable releases from the Facility. The amount of such assurance for the County Extension Landfill was determined to be at least $1,712,130, while that for the City Landfill was determined to be $4,147,680, both are adjusted annually for inflation. This Order does not change the total amount of financial assurance for known or reasonably foreseeable releases for the Facility, which is $5,859,810, adjusted annually for inflation.

44. This Order is in conformance with State Board Resolution No. 93-62 because it requires a CAP for known and future releases that implements all applicable 27 CCR requirements and all additional federal requirements under 40 CFR part 258.58, including parts 258.58(a)(1)(i-iii), which require

the Discharger to implement an Assessment Monitoring Program (AMP) pursuant to 40 CFR part 258.55 in conjunction with the CAP.

45. Since 1996, the Discharger has been monitoring leachate annually for constituents listed in Appendix II of 40 CFR part 258 (Appendix II constituents), and re-testing for newly discovered ones, in order to create a proposed constituent of concern (COC) list containing those Appendix II constituents that could be released from the Landfill. This Order narrows the scope of the COC list to include, from Appendix II, only those constituents that have been detected and verified in leachate. By monitoring for detectable COCs, and any foreseeable breakdown products, the Discharger will be monitoring for all Appendix II constituents that could be released from the Landfill. This is the manner in which this Order meets the requirements of 40 CFR part 258.55(b).

46. Given that the VOCs in the Appendix I (to 40 CFR part 258) federal Monitoring Parameter list are all Appendix II constituents, the leachate sampling at the site also serves as a basis for narrowing the scope of VOCs which the Discharger must monitor to include only those federal Appendix I constituents that have ever been detected in leachate, at trace levels or above, and verified by retest. This is the manner in which this Order implements 40 CFR part 258.54(a)(1).

47. This Order places the entire Facility into a CAP in order to plan and propose corrective measures meeting applicable State and Federal requirements. This approach eliminates needless complexity associated with applying concurrent programs (i.e., running unaffected portions under a detection monitoring program (DMP) and the portions affected by the release under either an evaluation monitoring program (EMP) or a CAP, or both). The Regional Board chooses to implement this approach by documenting and responding to the compliance status of each monitoring parameter (Mpar) individually at each compliance well separately (i.e., the Discharger will track the compliance status of each such "well/MPar pair" separately).

48. Under this Order, at any given time, each well/MPar pair will be in one of two compliance status conditions. Prior to the MPar's exhibiting a measurably significant exceedance at a given well, that well/MPar pair will be in "Detection Mode" and monitoring will involve statistical or non-statistical data analysis designed to detect an unnatural increase at that well for that MPar. Once a well/MPar pair exhibits a "measurably significant increase," it will change to "Tracking Mode" and monitoring will involve concentration-versus-time plotting to document changes in the release. Once in tracking mode, a well/MPar pair can return to Detection Mode only upon inception of the proof period to demonstrate the successful completion of corrective action.

49. To eliminate the adverse effects of geographic variation of water quality at the site, this Order requires an intra-well-comparison style of monitoring for all well/MPar pairs for which this approach is feasible. Under this approach, each well's historic data is used as the reference against which new data is tested.

50. This Order minimizes the occurrence of false-positive indications in three ways: a) it includes a non-statistical data analysis method, meeting 27 CCR section 20415(e), subsections (8) & (9), that collectively analyzes all MPars, at a given well, whose background data exceeds its respective Method Detection Limit (MDL) no more than 10% of the time; b) all statistical and non-statistical data analysis methods used on well/MPars in Detection Mode data analyses include a discrete retest as described under 27 CCR section 20415(e)(8)(E); and c) it applies a sampling and analysis methodology that minimizes the number of constituents that are subject to statistical or non-statistical data analysis.

51. To assure compliance with the requirements and considerations under 40 CFR sections 258.55 through 258.57 and 27 CCR section 20425 in the simplest way possible, this Order: a) requires statistical or non-statistical data analysis, at any given compliance well, only for those MPars that are in Detection Mode at that well; b) requires concentration-versus-time plotting, at any given compliance well, for all MPars that are in Tracking Mode at that well; c) utilizes an initial scan for all Appendix II constituents at all point of compliance wells involved in the release to be sure that the MPar and COC lists include all Appendix II constituents detectable in groundwater; d) thereafter, uses a periodic (five yearly) presence/absence screening of all COCs, rather than statistical/non-statistical data analysis, at all appropriate wells to keep the MPar list updated to include all COCs that are detectable in groundwater; e) uses annual leachate sampling, for all non-COC Appendix II constituents, to keep the COC list updated to include all Appendix II constituents that the landfill could release; and f) implements an automatic update procedure to assure that the MPar and COC lists remain current.

52. Given that Detection Mode testing can be compromised by a COC arriving at any background well either as a result of the release (e.g., through advective flow, in the unsaturated zone, of gas-phase VOCs in LFG) or through the arrival of such a constituent from an upgradient source, this Order implements a simple means for identifying such anomalies, requires the Discharger to investigate their cause, and initiates appropriate adjustments to the monitoring program.

CEQA AND ADMINISTRATIVE MATTERS

53. The development of the Landfill is supported by the following documents that were prepared under the California Environmental Quality Act (CEQA): a Final Environmental Impact Report (FEIR) certified by the County of Los Angeles Board of Supervisors on November 30, 1993 (State Clearinghouse No. 89071210), a Final Subsequent Environmental Impact Report (FSEIR) certified by the City of Los Angeles Planning Commission and City Council on December 10, 1999 (State Clearinghouse No. 92041053), and an Addendum to the FEIR and FSEIR prepared by the County of Los Angeles Department of Planning and circulated in October 2004 (State Clearinghouse No. 1989071210). The adoption of this Order is consistent with the purpose of the FEIR, the FSEIR, and the Addendum.

54. On June 13, 1994, this Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan), which has been subsequently amended. The Basin Plan designates the following beneficial uses and established water quality objectives for groundwater within the San Fernando Groundwater Basin: municipal and domestic supply, agricultural supply, industrial process supply, and industrial service supply. The requirements in this Order are in conformance with the goals of the Basin Plan.

55. The Regional Board has notified the Discharger and interested agencies and persons of its intent to adopt waste discharge requirements for this disposal of waste to land and discharge, and has provided the Discharger and interested persons with an opportunity to submit their written views and recommendations.

56. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED, that the Discharger shall comply with the following at the Landfill:

A. Acceptable Materials

1. The Landfill is a Class III solid waste management facility. The Landfill will accept waste for recycling, composting, and disposal as deemed acceptable at this class of facility by the Regional Board through orders or regulations.

2. Wastes disposed of at the Landfill shall be limited to certain non-hazardous solid wastes (as described in section 20220(a) of 27 CCR), inert solid wastes (as described in section 20230 of 27 CCR), and treated wood waste.

    a. Non-hazardous solid waste means all putrescible and non-putrescible solid, semi-solid and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and other discarded waste (whether of solid or semi-solid consistency), provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation to waters of the State (i.e., designated waste).

    b. Inert waste means that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste.

    c. Treated wood, as defined in California Health and Safety Code (CHSC) section 25150.7, means wood that has been treated with a chemical preservative for the purposes of protecting wood against insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

B. Unacceptable Materials

1. No hazardous wastes (as defined in title 22 of the California Code of Regulations (22 CCR) section 66261.3 et seq.), designated wastes (as defined in CWC section 13173), or special wastes (27 CCR section 20164, as categorized in 22 CCR sections 66261.120, 66261.122, 66261.124), such as liquids, oils, waxes, tars, soaps, solvents, or readily water-soluble solids, such as salts, borax, lye, caustic or acids shall be disposed of at the Landfill.

2. No semi-solid wastes shall be disposed of at the Landfill. Semi-solid waste means waste containing less than 50 percent solids, as described in section 20200 of 27 CCR. In cases of spoiled semi-solid food wastes and certain other non-hazardous wastes, the Regional Board authorizes the Executive Officer to approve solidification or waste disposal operations at the landfill on a case-by-case basis.

3. No materials that are of a toxic nature, such as insecticides, or poisons, shall be disposed of at the Landfill.

4. No radioactive waste, including low level radioactive waste, as defined by the agency with jurisdictional authority, shall be disposed of at the Landfill.

5. No infectious materials or hospital or laboratory wastes, except those authorized for disposal to land by official agencies charged with control of plant, animal and human disease, shall be disposed of at the Landfill.

6. No pesticide containers shall be disposed of at the Landfill, unless they are rendered nonhazardous by triple rinsing. Otherwise, they must be hauled off-site to a legal point of disposal.

7. No septic tank or chemical toilet wastes, sewage sludge, incinerator ash, asbestos or asbestos products, or dead animals, shall be disposed of at the Landfill.

C. Prohibitions

1. Discharge of waste to land as a result of inadequate waste disposal and postclosure maintenance practices, and that have not been specifically described to the Regional Board and for which valid WDRs are not in force, are prohibited.

2. The discharge of waste shall not:

   a. cause the occurrence of coliform or pathogenic organisms in waters pumped from a groundwater basin;

   b. cause the occurrence of objectionable tastes or odors in waters pumped from a groundwater basin;

   c. cause waters pumped from a groundwater basin to foam;

   d. cause the presence of toxic materials in waters pumped from a groundwater basin;

   e. cause the pH of waters pumped from a groundwater basin to fall below 6.0, or rise above 9.0;

   f. cause the Regional Board's water quality objectives for groundwaters or surface waters as established in the Basin Plan to be exceeded; nor

   g. cause pollution, contamination, or nuisance, as defined in CWC section 13050, or adversely affect beneficial uses of groundwaters or surface waters as established in the Basin Plan.

3. Odors, vectors, and other nuisances of waste beyond the limits of the Landfill are prohibited.

4. The discharge of waste to surface drainage courses or to usable groundwater is prohibited.

5. Basin Plan prohibitions shall not be violated.

6. All federal, state, and county sanitary health codes, rules, regulations, and ordinances pertinent to the disposal of wastes on land shall be complied with in the operation and maintenance of the Landfill.

7. No wetlands shall be removed, filled, or otherwise impacted unless a section 404 permit and section 401 certification are issued under the Federal Clean Water Act.

D. Requirements for Containment Structures

1. All containment structures and erosion and drainage control systems at the Landfill shall be designed and constructed under direct supervision of a California-registered civil engineer or certified engineering geologist, and shall be certified by the individual as meeting the prescriptive standards and/or performance goals of 27 CCR.

2. The Landfill shall have containment structures that are capable of preventing degradation of the waters of the State and shall be designed to withstand a MCE without failure. Construction standards for containment structures shall comply with 27 CCR requirements. Design specifications, including any alternative design proposal meeting the prescriptive standards and/or performance goals of 27 CCR and State Board Order No. 93-62, are subject to the Executive Officer's review and approval prior to construction of any containment structure.

3. All future development of the Landfill shall be constructed with a double composite liner system, as proposed in the JTD and illustrated in Figure 4. Leachate collection sumps at the Landfill shall be equipped with lysimeters. All liner and leachate collection system designs for the Landfill must be submitted to the Regional Board for the Executive Officer's approval. No liners shall be installed unless the design is approved by the Executive Officer.

4. The static factor of safety (FS) of all interim slopes (slopes that exist for a period less than six months) and final configuration of the Landfill, including liner systems, final covers, and cut and fill slopes, shall not be less than 1.5.

5. Landfill refuse slopes shall be designed per requirements in 27 CCR and constructed in a manner that will resist settlement and prevent failure during a MPE for interim slopes, or a MCE for final refuse slopes. Critical slopes shall be designed to have FS's no less than 1.5. If a Newmark-type seismic deformation analysis is used in lieu of achieving a FS of no less than 1.5, the calculated permanent seismic deformation must not exceed six inches for liner systems and must not exceed 36 inches for the final cover.

6. Cut and subgrade slopes, fill slopes, refuse cells and visual berms shall be designed and excavated/constructed in a manner that will resist settlement and remain stable during the design earthquake event in accordance with section 20370 of 27 CCR. Final cut-and-fill slopes at the County Landfill shall have an overall slope gradient no steeper than 1.5H:1V (horizontal to vertical), except for the case when a steeper slope provides a more stable configuration. Final maximum refuse slope gradient at the County Landfill shall not be steeper than 3H:1V.

7. The Discharger shall submit detailed designed plans, specifications, and descriptions for all proposed containment structures and construction features for the Executive Officer's approval at least 90 days prior to construction.

8. All design plans shall contain detailed construction quality assurance (CQA) programs as required by 27 CCR. All CQA activities shall be conducted by third parties that are independent from the Discharger and the contractor who carries out the construction.

9. Prior to start of construction of any containment structure, a geologic map of the final excavation grade shall be prepared for review, approval, and confirmation in the field by Regional Board staff.

10. No disposal shall occur in a new area until the corresponding construction is completed, certified, and approved by Regional Board staff.

11. The construction report, including drawings documenting "as-built" conditions, shall be submitted within 60 days after the completion of construction. If the "as-built" conditions are virtually identical to the approved design plans and specifications, only change sheets need be submitted in lieu of a complete set of drawings.

12. The landfill gas collection system at the Landfill shall be designed so that gas condensate is not returned to the waste management unit through the collection system.

13. The Discharger shall perform an annual testing per 27 CCR section 20340(d) of any LCRS to demonstrate their operating efficiency during the operational, closure and postclosure maintenance periods of the Landfill.

E. Requirements for Disposal Site Operations

1. The Discharger shall maintain an operating record for the Landfill in accordance with 40 CFR Part 258.29(a). All records of site operations, landfill construction, inspection, monitoring, remediation, and copies of design plans, construction quality assurance documents, monitoring reports, and technical reports that are submitted to regulatory agencies, shall be included in the operating record.

2. Drainage controls, structures, and facilities shall be designed to divert any precipitation or tributary runoff and prevent ponding and percolation of water at the Landfill in compliance with sections 20365 and 21090(b)(1) of 27 CCR. When necessary, temporary structures shall be installed as needed to comply with this requirement.

3. The Landfill shall be graded and maintained to promote runoff of precipitation and to prevent ponding of liquids and surface water. Erosion or washout of refuse or cover materials by surface flow shall be controlled to prevent off-site migration.

4. Wastes deposited at the Landfill shall be confined thereto, and shall not be permitted to blow, fall, or otherwise migrate off-site, or to enter off-site water drainage facilities or watercourses.

5. The Discharger shall implement a load-checking program at the Landfill, subject to approval of the Executive Officer, to prevent the disposal of hazardous wastes, designated wastes, or other unacceptable wastes.

6. Waste material shall not be discharged on any ground surface that is less than five feet above the highest anticipated groundwater level.

7. The Discharger shall comply with notification procedures contained in section 13271 of the CWC with regard to the discharge of hazardous wastes. The Discharger shall remove and relocate to a legal point of disposal, any wastes that are discharged at the Landfill in violation

of these requirements. For the purpose of these requirements a legal point of disposal is defined as one for which WDRs have been established by a California regional water quality control board and is in full compliance therewith. The source and final disposition (and location) of such wastes, as well as methods undertaken to prevent future recurrence of such disposal shall be reported in monitoring reports submitted under M&RP No. CI-2043.

8. All wastes shall be covered at least once during each 24-hour period in accordance with sections 20680 and 20705 of 27 CCR. Intermediate cover over wastes discharged to the Landfill shall be designed and constructed to minimize percolation of precipitation through wastes and contact with material deposited. Other measures will be taken as needed to prevent a condition of nuisance from fly breeding, rodent harborage, and other vector-related activities.

9. Alternative daily cover (ADC) may be used consistent with section 20690 of 27 CCR.

10. The migration of gases from the Landfill shall be controlled to prevent water pollution, nuisance, or health hazards. The discharge of wastes or waste by-products (i.e., leachate or gas condensate) to off-site surface drainage courses or to groundwater is prohibited.

11. Any proposed modifications or expansions to the gas monitoring and collection system at the Landfill shall be designed to allow the collection, testing and treatment, or disposal by approved methods, of all gas condensate produced at the Landfill.

12. In any area within the Landfill where a natural spring or seep is observed, provisions shall be made and/or facilities shall be provided to ensure that this water will not come in contact with decomposable refuse. The locations of all springs and seeps found prior to, during, or after placement of waste material that could affect the Landfill shall be reported to the Regional Board within 24 hours.

13. The Discharger shall develop/maintain permanent survey monuments at the Landfill throughout the development, closure and postclosure maintenance periods. Benchmarks shall be established and maintained in sufficient numbers to enable reference to key elevations and to permit control of critical grading and compaction operations.

14. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, and adequate laboratory and process controls including appropriate quality assurance procedures.

15. No wastewater or storm water shall leave the Landfill except as permitted by a NPDES permit issued in accordance with the federal Clean Water Act (CWA) and the CWC. The Discharger shall maintain and modify, as necessary, a storm water pollution prevention plan developed for the Facility.

16. Any abandoned wells or bore holes under the control of the Discharger, and situated within the Landfill boundaries, must be located and properly modified or sealed to prevent mixing of any waters between adjacent water-bearing zones. A notice of intent to decommission a well must be filed with the appropriate regulatory agencies prior to decommissioning. Procedures used to decommission these wells, or to modify wells still in use, must conform to the specifications of the local health department or other appropriate agencies. If such abandoned

wells or bore holes are encountered during construction activities, the Discharger must notify the designated Regional Board staff contact verbally with 24 hours and in writing within seven days. Such abandoned wells or bore holes must be properly decommissioned before all affected construction activities can proceed.

17. The Discharger shall report any noncompliance or any incident resulting from operations at the Landfill that are in violation of this Order. Any such information shall be provided verbally to the designated Regional Board staff contact within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall be provided to the Regional Board within seven days of the time that 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, or prevent recurrence of the noncompliance. The designated Regional Board staff may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

18. Where the Discharger becomes aware that it failed to submit any relevant facts in any report to the Regional Board, it shall submit such facts or information within seven days of its discovery of the omission.

F. Requirements for Water Quality Protection Standards

1. In accordance with 27 CCR section 20390, the water quality protection standards (WQPS) for the Landfill are established as the natural background groundwater quality at the site, which is set to either the statistically predicted value (if the constituent naturally exists) or the laboratory detection limit (if the constituent does not naturally exist in the water). WQPS that have been calculated based on available water quality data are included in M&RP No. CI-2043. The Discharger shall update the water quality standards at least every two years based on concurrent monitoring data, as required by the M&RP.

2. The compliance point(s) where WQPS apply shall be located along downgradient edges of waste management facilities at the Landfill or an alternate location approved by the Executive Officer.

3. The compliance period for which WQPS are applicable shall be the entire active life of a waste management facility, and during the closure and postclosure maintenance periods.

G. Requirements for Groundwater Monitoring

1. The Discharger shall implement the attached M&RP No. CI-2043, which is incorporated herein by reference and revisions thereto, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill or any unreasonable impairment of beneficial uses associated with (or caused by) discharge of wastes to the Landfill.

2. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Executive Officer, proposing modifications to M&RP No. CI-2043. The Discharger shall implement any changes in the revised M&RP approved by the Executive Officer upon receipt of a signed copy of the revised M&RP.

3. Unless otherwise approved by the Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "*Test Methods for Evaluating Physical/Chemical Methods*" (SW-846) promulgated by the United States Environmental Protection Agency.

4. The Discharger shall furnish, under penalty of perjury, technical or monitoring program reports in accordance with CWC section 13267. Failure or refusal to furnish these reports or falsifying any information provided therein may render the Discharger guilty of a misdemeanor and subject to the penalties stated in CWC section 13268. Monitoring reports shall be submitted in accordance with the specifications contained in M&RP No. CI-2043, which is subject to periodic revisions as warranted and approved by the Executive Officer. Additionally, monitoring reports shall be prepared and signed by a registered civil engineer or registered geologist.

5. The effectiveness of all monitoring wells, monitoring devices, and leachate and gas collection systems at the Landfill shall be maintained at all times, including the postclosure maintenance period in accordance with acceptable industry standards. The Discharger shall maintain a Monitoring Well Preventative Maintenance Program approved by the Executive Officer for the Landfill. Elements of the program shall include, as a minimum, periodic visual inspections of well integrity, pump removal and inspection, and appropriate inspection frequencies. Within 60 days of the adoption of this Order, the Discharger shall submit an updated Monitoring Well Preventative Maintenance Program to the Executive Officer for approval.

6. If a well or piezometer is found to be inoperative, the Regional Board and other interested agencies shall be so informed in writing within seven days of such discovery and this notification shall contain a time schedule for returning the well to operating order. Changes to the existing monitoring program shall be submitted for Executive Officer approval at least 30 days prior to implementing the change(s).

7. If a well or piezometer is proposed to replace an inoperative well or piezometer identified in the "Monitoring Well Preventative Maintenance Program", the Discharger shall not delay replacement while waiting for Executive Officer approval. However, a technical report describing the location and construction details shall be submitted to the Executive Officer within 30 days.

8. The Discharger shall provide for proper handling and disposal of water purged from monitoring wells at the Landfill during sampling. Water purged from a monitoring well shall not be returned to that well (or any other monitoring well).

9. For any monitoring wells installed at the Landfill in the future, the Discharger shall submit technical reports for approval by the Executive Officer prior to installation. These technical reports shall be submitted at least 60 days prior to the anticipated date of installation of the wells. These reports shall be accompanied by:

    a. Maps and cross sections showing the locations of the monitoring points; and

    b. Drawings and data showing construction details of the monitoring points. These data shall include:

i. casing and test hole diameter;
ii. casing materials;
iii. depth of each hole;
iv. the means by which the size and position of perforations shall be determined, or verified, if in the field;
v. method of joining sections of casing;
vi. nature of filter materials;
vii. depth and composition of soils; and
viii. method and length of time of well development.

10. Compliance monitoring wells at the Landfill are specified in M&RP No. CI-2043. Any existing monitoring wells that are not included in the current monitoring program shall be placed on standby status. All monitoring wells shall be monitored pursuant to this Order and as directed by the Executive Officer through future revisions of the M&RP.

11. The Discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices necessary to comply with M&RP No. CI-2043 as adopted or as revised by the Executive Officer.

H. Requirements for Corrective Action Program (CAP)

1. The Discharger shall maintain and operate the groundwater extraction system at the cutoff wall at the entrance area of the Facility to prevent contaminated groundwater from leaving the site. The system shall be operated with an automatic mechanism to maintain a water level at the extraction trench that is lower than the water levels in the observation wells to the down-gradient of the cutoff wall.

2. The Discharger shall retain and collect all groundwater seepages at the closed City Landfill Unit 2. In no circumstance shall such seepage water be released offsite.

3. The Discharger shall retain and collect all subdrain water at the Landfill that is impacted by VOCs.[1]

4. All contaminated water, including but not limited to, extracted groundwater, seepage water, and VOC impacted subdrain water, shall be treated as necessary at the onsite leachate treatment plant and either beneficially re-used at the Facility or properly discharged to the sanitary sewer system. The on-site use of contaminated water shall meet all the requirements in Section I of this Order.

5. The Discharger shall take adequate measures to prevent landfill gas from contaminating groundwater and subdrain water at the site, including installation of additional gas extraction wells as needed and monitoring the concentration of methane in the subdrain system.

6. In each semi-annual report submitted under M&RP No. CI-2043, the Discharger shall summarize all corrective actions taken at the Landfill during the reporting period, progress made on eliminating the impact of the Landfill on subdrain water, and the corrective actions that will be taken for the following monitoring periods. The Executive Officer may require additional corrective actions that are deemed necessary by Regional Board staff.

[1] VOC impacted subdrain water refers to any subdrain water that contains any VOC at a concentration higher than the laboratory reporting limit of the constituent.

I. Provisions for Onsite Use of Water

1. Any water used for landscape irrigation, dust control or other non-emergency uses, shall be subject to WDRs, except for potable water uses and any other water allowed by this Order.

2. Other than potable water, irrigation and dust control water used at the Landfill shall be limited to the groundwater extracted from wells and trenches, groundwater seepage collected at the surface, subdrain water, and stormwater collected at sedimentation basins.

3. No leachate or gas condensate shall be used at the Landfill for dust control and irrigation purposes unless they meet the conditions in Paragraph 10 of this Section below.

4. No water shall be routinely applied to the Landfill except for landscape irrigation and dust control water. Water used for these purposes shall only be applied by spraying, and in quantities not to exceed what is necessary to support plant life, or to control wind borne dust particulates. Significant overflow or runoff caused by irrigation or dust control water is prohibited.

5. During periods of precipitation, when the use of water for irrigation or dust control is not necessary for the purpose specified in this Order, all non-storm water collected at the site shall be stored or disposed at a legal point of disposal.

6. Wastewater used at the Landfill shall not percolate into the disposal areas or native soil, or enter the storm water collection system, unless specifically permitted by WDRs.

7. All uses of water shall be within the boundaries of the Landfill property. During an emergency, this water may be used for fire fighting on the Landfill or on undeveloped areas off and adjacent to the Landfill.

8. Treated wastewaters, such as leachate, gas condensate, contaminated groundwater and subdrain water, that are used onsite for dust control or irrigation shall be monitored in accordance with M&RP No. CI-2043. Water samples shall be taken prior the mixture of the water with potable water sources.

9. Water used on-site for dust control or irrigation, except for potable water uses, shall at all times be within the range of 6.0 to 9.0 pH units.

10. Any water used on-site for irrigation or dust control shall not exceed the maximum contaminant levels contained in section 64435 of Title 22, California Code of Regulations for heavy metals, nitrates and organic chemicals, and in section 64473 of Title 22 for copper and zinc. Radioactivity shall not exceed the limits specified in sections 64441 and 64443 of Title 22 (or subsequent revisions).

J. Provisions for Management of Leachate and Gas Condensate

1. The Discharger shall intercept and remove any liquid detected in the leachate collection and removal system and the gas monitoring and collection system. Leachate and gas condensate (landfill liquids) shall be managed in one or more of the following ways: (a) by removal from the site to a legal point of disposal; (b) by treatment in the existing wastewater treatment

facility and used on-site in accordance with Section I above; or (c) by direct return to the Landfill in accordance with Paragraph 3 below.

2. The Discharger shall monitor the quality of leachate and gas condensate as required in M&RP CI-2043. Any leachate determined to be hazardous shall be transported by a licensed hazardous waste hauler to an approved treatment or disposal facility.

3. Landfill liquids may be returned to the Landfill in conformance with sections 20200(d) and 20340(g) of 27 CCR under the following conditions:

   a. Only landfill liquids generated at the Landfill may be returned.

   b. Landfill liquids shall be discharged only over areas that are equipped with a double composite liner system.

   c. Landfill liquids shall be discharged using methods that limit personnel from coming into direct contact with the liquids.

   d. Landfill liquids may be reintroduced back into the Landfill by applying to solid waste as it is placed, or by subsurface infiltration through vertical wells, horizontal trenches, and permeable layers, as proposed in the JTD.

   e. Geotextile alternate daily cover shall not be used on areas in which landfill liquids have been applied to the uppermost layer of solid waste. Waste to which landfill liquids have been applied must be covered by additional solid waste prior to application of a geotextile alternate daily cover.

   f. The practice of reintroducing landfill liquids to the Landfill shall not cause noxious odors to be perceived off-site.

   g. The quantities, methods of application, and locations of landfill liquids reintroduction at the Landfill must be reported in the semi-annual and annual reports required under the M&PR.

K. Provisions for Drainage and Erosion Control

1. Waste management units shall be designed, constructed, and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, and washout which could occur as a result of precipitation from a 100-year, 24-hour frequency storm. This shall be accomplished by, at a minimum, the following:

   a. Top deck surfaces shall be constructed to achieve a minimum of three percent (3%) slope, including structures which direct water to downdrains;

   b. Downdrains and other necessary drainage structures must be constructed for all sideslopes as necessary; and

   c. All components of the facility drainage system must be designed and constructed to withstand site-specific maximum intensity precipitation (peak flow) from a 100-year, 24-hour storm.

2. Leachate and landfill gas condensate containment system structures shall be protected and maintained continuously to ensure their effectiveness and to prevent commingling of leachate and gas condensate with surface run-on and runoff.

3. The Discharger shall design, construct, and maintain:

   a. A run-on drainage control system to prevent flow from off-site sources onto the disposal areas of the Landfill (active or inactive portions), and to collect and divert both the calculated volume of precipitation and the peak flow from off-site sources that result from a 100-year, 24-hour storm;

   b. A runoff drainage control system to minimize sheet flow from the disposal areas, and to collect and divert both the calculated volume of precipitation and the peak flow from on-site surface runoff that results from a 100-year, 24-hour storm; and

   c. Drainage control structures to divert natural seepage from native ground and to prevent such seepage from entering the waste management units.

4. All drainage structures shall be protected and maintained continuously to ensure their effectiveness.

5. Annually, by October 1st, all drainage control system construction and maintenance activities shall be completed. The Annual Summary Report required under M&RP No. CI-2043 shall include a drainage control system maintenance report that includes, but not be limited to, the following information:

   a. For the previous 12 months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm;

   b. A tabular summary of both new and existing drainage control structures, including the types and completion dates of maintenance activities performed for each of these structures; and

   c. An 11"x17" or larger site map, prepared by either aerial surveillance or a professional civil engineer, indicating the locations of the elements listed in Item b. above, and the flow direction of all site drainage. The map shall be updated at least annually.

7. Periodic inspection of the waste management units, the drainage control system, and all containment structures shall be performed to assess the conditions of these facilities and to initiate corrective actions necessary to maintain compliance with this Order.

L. Provisions for Closure and Postclosure Maintenance of City Landfill Unit 1

1. The Discharger has a continuing responsibility for correcting any problems which may arise in the future as a result of waste discharged at City Landfill Unit 1, and from gases and leachate that may be caused by infiltration or precipitation of drainage waters into the waste disposal units, or by infiltration of water applied to this property during subsequent use of the land or other purposes.

2. 27 CCR, section 21890(b), provides that postclosure maintenance plans may be revised during the postclosure maintenance period upon concurrence with the local enforcement agency (LEA) and approval by the CIWMB and the Regional Board. Within 180 days of the adoption of this Order, the Discharger shall submit a revised postclosure maintenance plan for City Landfill Unit 1 to reflect the current site conditions. The plan shall include post-closure maintenance procedures for both the areas that will be affected by the development of City/County Landfill and those areas that have been permanently closed.

3. Postclosure maintenance activities at City Landfill Unit 1 shall be reported as required in M&RP No. CI-2043.

M. General Provisions

1. The Discharger shall maintain a copy of this Order at the Landfill so as to be available at all times to Landfill operating personnel.

2. The Discharger shall comply with all applicable provisions, requirements, and procedures contained in the most recent version of 27 CCR and any future amendments.

3. These requirements do not exempt the Discharger from compliance with any other current or future law that may be applicable. They do not legalize this waste management facility, and they leave unaffected any further restraints on the disposal of wastes at this waste management facility that may be contained in other statutes.

4. This Order includes the attached "*Standard Provisions Applicable to Waste Discharge Requirements*", adopted November 7, 1990 (Attachment W) which is incorporated herein by reference. The Landfill continues to be subject to Regional Board Order No. 93-062 incorporating federal Resource Conservation and Recovery Act (42 U.S.C. section 6901, et seq.) regulations, which are also incorporated herein by reference. If there is any conflict between provisions stated herein and the standard provisions, Regional Board Order No. 93-062, or federal regulations, the provisions stated herein will prevail.

5. The requirements adopted herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, state, or local laws.

6. The filing of a request by the Discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any condition, provision, or requirements of this Order.

7. This Order does not convey any property rights of any sort, or any exclusive privilege.

8. The Discharger is the responsible party for these WDRs and any M&RP for the Landfill. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement actions, including regional board orders, or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.

9. The Discharger shall within 48 hours of a significant earthquake event, provide an initial verbal assessment to the Regional Board of any earthquake damage at the Landfill. A detailed post-earthquake report describing any physical damages to the containment features,

groundwater monitoring and/or leachate control facilities and a corrective action plan to be implemented at the Landfill shall be submitted to the Regional Board with thirty days of the earthquake event. A significant earthquake is herein defined as an earthquake event above Richter Magnitude 5.0 within a 100 kilometer radius of the property boundaries of the Landfill.

10. The Discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

11. The Discharger shall submit to the Regional Board and to the CIWMB evidence of financial assurance for postclosure maintenance, pursuant to 27 CCR, division 2, chapter 6. The postclosure period shall be at least 30 years. However, the postclosure maintenance period shall extend as long as wastes pose a threat to water quality.

12. In accordance with section 20380(b) of 27 CCR, the Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the Landfill. The Executive Officer may reconsider the amount of such assurance based on changing site conditions or applicable State or Federal regulations.

13. The Discharger shall comply with all conditions of this Order and any additional conditions prescribed by the Regional Board in addenda thereto. Noncompliance with this Order constitutes a violation of the CWC and is grounds for:

    a. enforcement action;
    b. termination, revocation and reissuance, or modification of this Order; or
    c. denial of a report of waste discharge (ROWD) in application for new or revised WDRs.

14. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

15. This Order is not transferable to any person except after notice to the Executive Officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWC.

16. In accordance with CWC section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into the waters of the state are privileges, not rights.

17. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

18. This Order becomes effective on the date of adoption by the Regional Board.

19. This Order may be terminated or modified for cause, including, but not limited to:

a. Violation of any term or condition contained in this Order;
b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
c. A change in any condition that required either a temporary or permanent reduction or elimination of the authorized waste discharge.

20. This Order in no way limits the authority of the Regional Board, as contained in the CWC, to require additional investigations and cleanups pertinent to this project. This Order may be revised by the Regional Board as additional information from the project becomes available.

21. Failure to comply with the terms and conditions of this Order may result in imposition of civil liability against the Discharger by the Regional Board, or judicially by the Superior Court, in accordance with CWC section 13350 et. seq. and/or referral to the Attorney General of the State of California for such legal action as may be deemed appropriate.

N. Rescissions

1. Except for enforcement purposes, Regional Board Order No. R4-2003-0155, adopted on December 4, 2003, is hereby rescinded.

2. Except for enforcement purposes, Regional Board Order No. R4-2007-0023, adopted on April 5, 2007, is hereby rescinded.

3. Except for enforcement purposes, Regional Board Order No. R4-2007-0046, adopted on December 6, 2007, is here by rescinded.

I, Tracy J. Egoscue, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 2, 2008.

_____
Tracy J. Egoscue
Executive Officer

Figure 1. Location Map

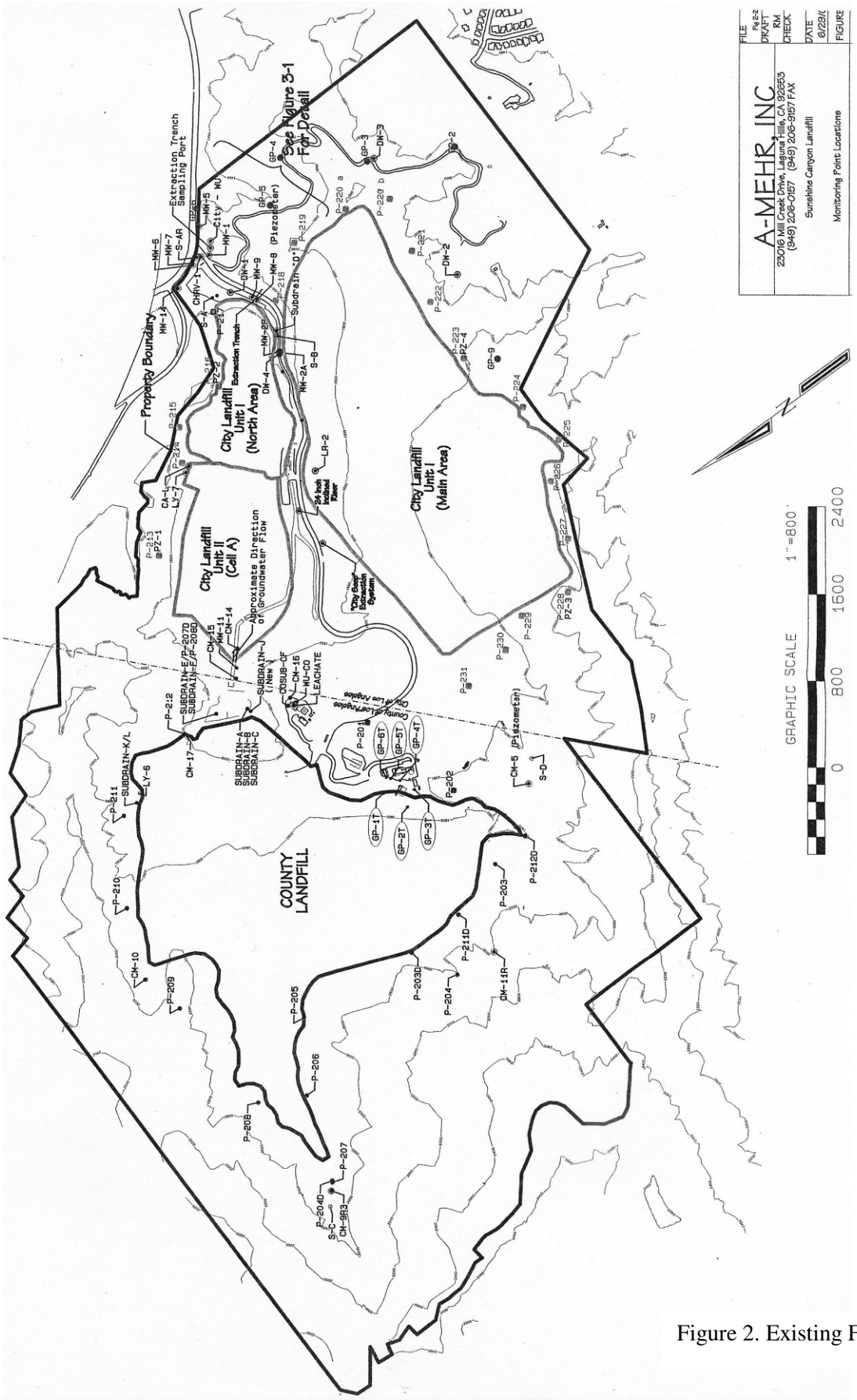

Figure 2. Existing Facilities

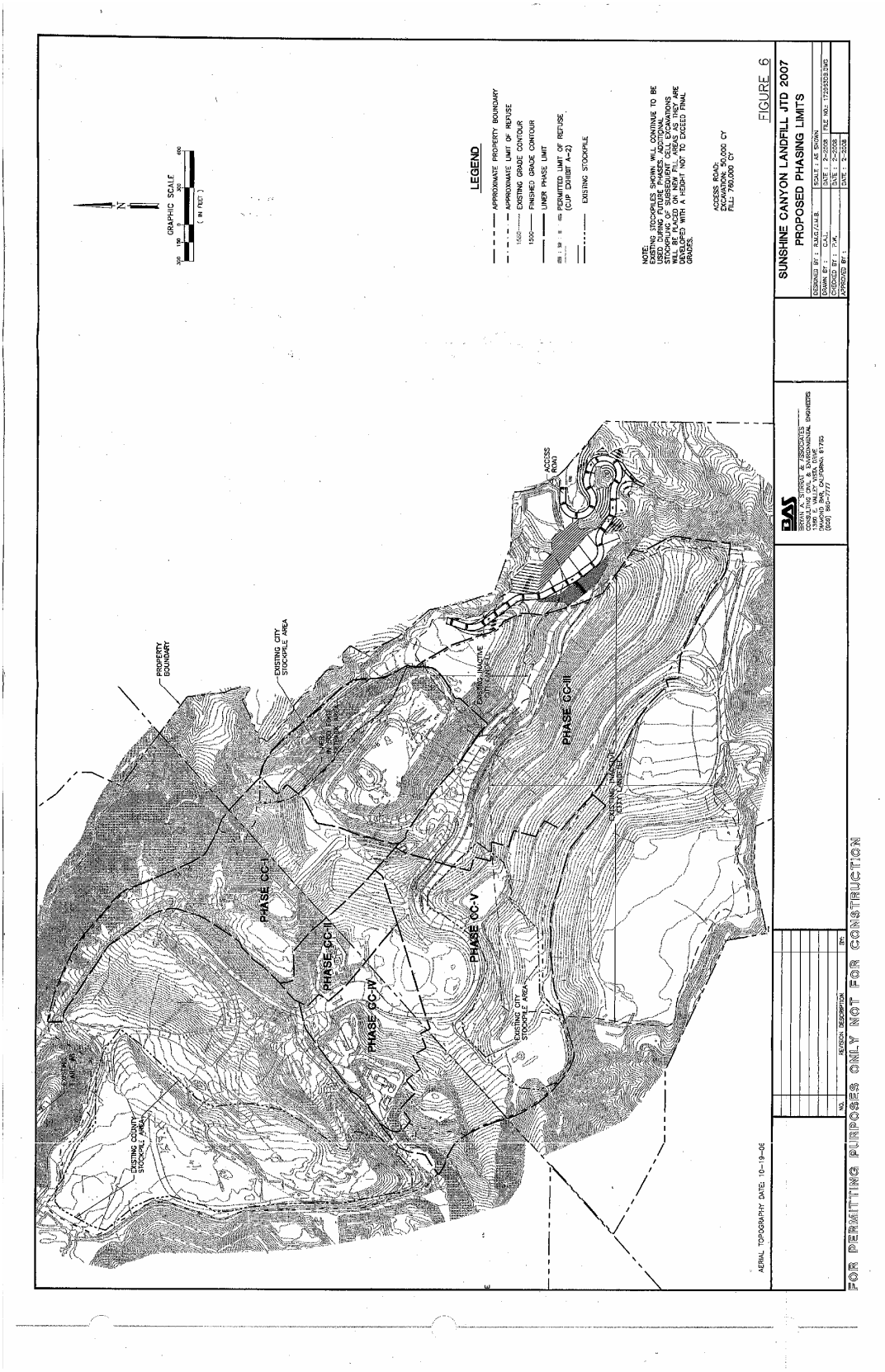

Figure 3. Proposed Phasing Limits

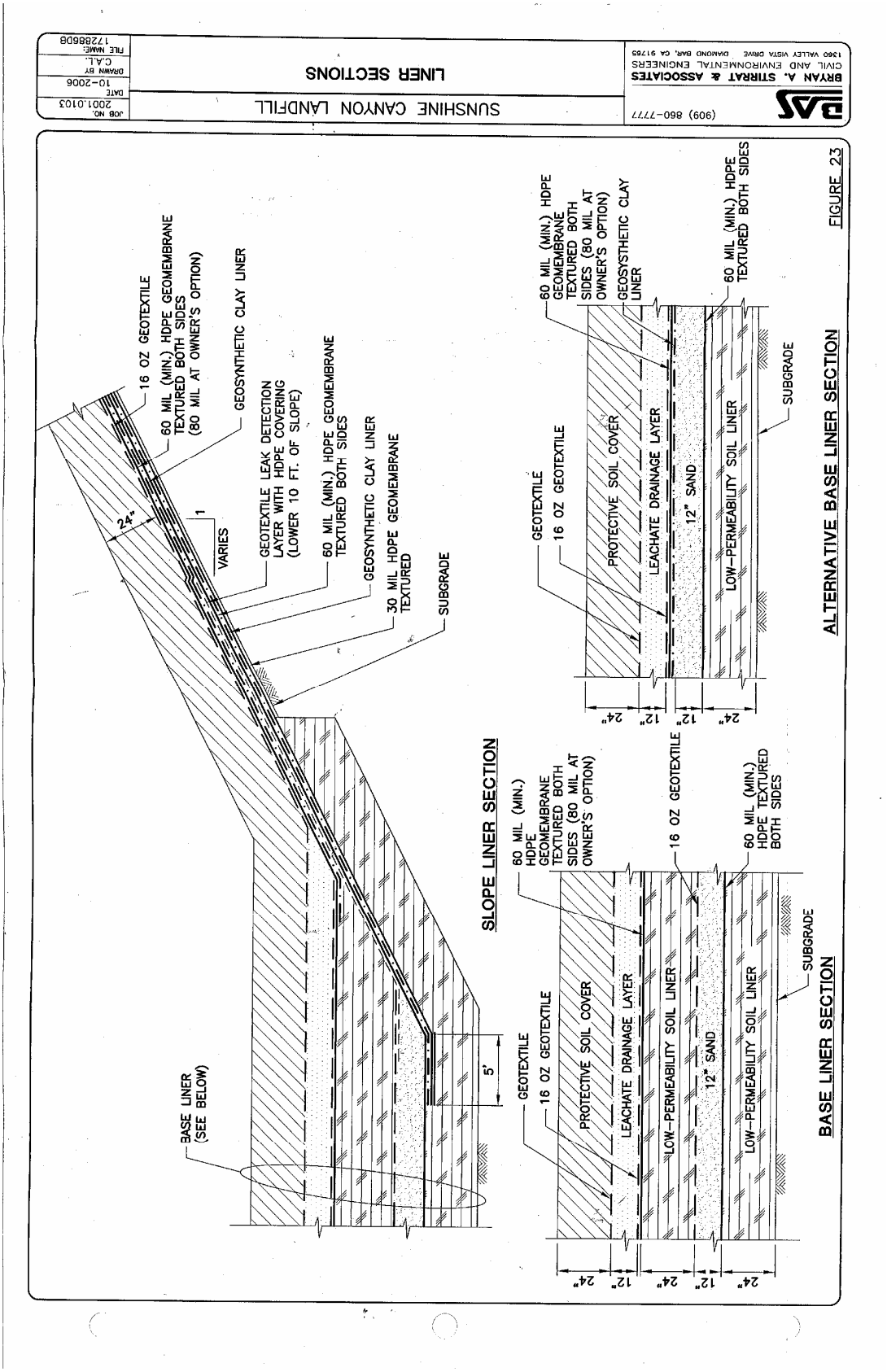

Figure 4. Proposed Phase CC-I through CC-V Liner Systems

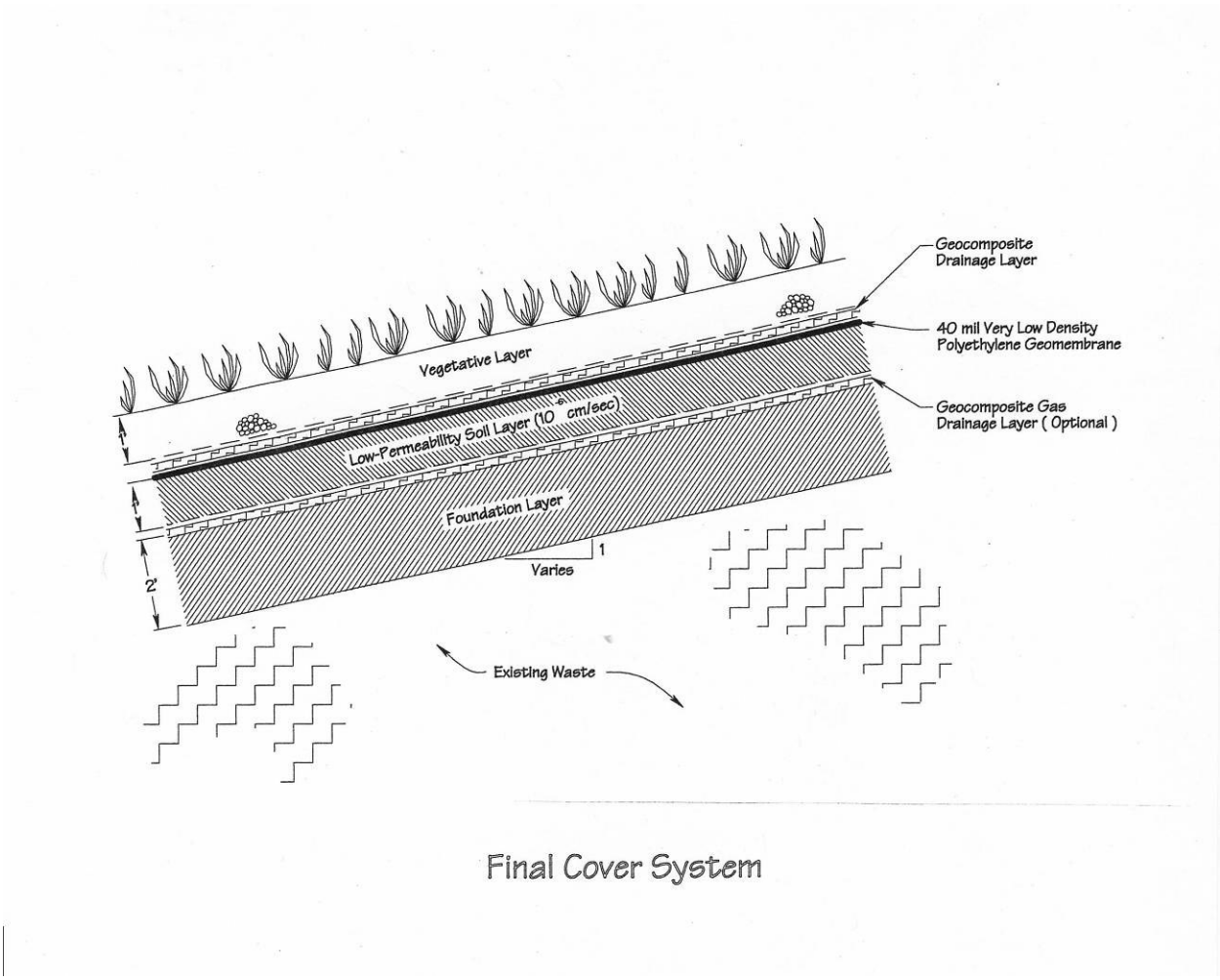

Figure 5. Proposed Final Cover Systems