STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2004-xxxx

WASTE DISCHARGE REQUIREMENTS FOR CLOSURE AND POST CLOSURE MAINTENANCE OF THE CITY OF LOS ANGELES LOPEZ CANYON LANDFILL

(File No. 69-068)

TENTATIVE

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

BACKGROUND

1. The City of Los Angeles (Discharger) owns and operates the inactive Lopez Canyon Landfill (Landfill), also referred to as the Lopez Canyon Restoration Project (LCRP) during its final closure process, at 11950 Lopez Canyon Road in the Lake View Terrace District, City of Los Angeles, California. The site is located approximately one-half mile to the northeast of the intersection of the 210 and 118 Freeways and is centered at approximately latitude 34° 17' 36"N and longitude 118° 23' 26"W (Figure 1).

2. The Landfill occupies a 399-acre area within the City of Los Angeles and bordered by unincorporated Los Angeles County. Of the 399 acres, approximately 166 acres have been used for waste disposal. The rest of the areas are used for ancillary facilities or left as open space.

3. The Landfill was operated as a Class III municipal solid waste (MSW) disposal facility from October 1975 to July 1996. For the last several years of operation, the Landfill was permitted to accept up to 4,000 tons per day of refuse.

4. The Landfill was operated as a modified "cut and cover" landfill. Refuse received at the Landfill was non-hazardous solid waste and inert material, primarily household organic and inorganic wastes. No medical, hazardous, liquid or other wastes, as defined by the California State Department of Health Services, requiring special treatment or handling, were permitted at the site. Refuse was spread and compacted in lifts to form cells which are approximately 20 to 25 feet in height. Soil for use as cover is excavated within the site property, or provided by reclaiming clean dirt loads from outside sources.

5. The 166-acre disposal area of the Landfill is divided into four sub-areas known as Disposal Areas A, B, AB+, and C (Figure 2). Area C is equipped with a liner and leachate collection and removal system (LCRS) as required by California Code of Regulations, title 27 (27 CCR), while the other three areas are not lined. Between the unlined Area AB+ and the lined Area C, a cutoff wall has been constructed. The cutoff wall has a minimum thickness of one foot, a permeability less than 1 x 10^{-6} cm/sec, and is keyed in at least five feet into the bedrock.

6. This Regional Board adopted Resolution No. 70-05 on January 14, 1970, to regulate the waste disposal activities at the Landfill. Resolution No. 70-05 was rescinded on November 13, 1991, with the adoption of Board Order No. 91-122 that contains Waste Discharge Requirements (WDRs) for the

Landfill. On June 17, 1993, the California State Water Resources Control Board (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 the federal MSW regulations in part 258, title 40, of the Federal Code of Regulations (40 CFR) that are more stringent than California State regulations. To comply with the State Board Resolution, this Regional Board adopted Order No. 93-062 (also known as the Super Order) on September 27, 1993. The Lopez Canyon Sanitary Landfill is currently subject to the requirements in both the Super Order and Regional Board Order No. 91-122.

7. 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.

8. Terms and acronyms used in this Order are defined in **Attachment A** of this Order as well as section 20164 of 27 CCR.

FINAL CLOSURE AND POST-CLOSURE MAINTENANCE

9. The Landfill is currently in the process of final closure. The Discharger initially submitted a Final Closure Plan (FCP) and a Final Post-Closure Maintenance Plan (FPCMP) for the Landfill to this Regional Board in February 1994. Subsequently, the Discharger submitted amendments to the FCP and FPCMP in June 1996, March 1997, October 1998, December 2002, and October 2003. The October 2003 amendment to the FCP includes a time schedule for the final closure of the Landfill, which indicates that all final closure activities at the site will be completed by May 9, 2008. The adoption of this Order constitutes the official approval of the schedule of final closure by the Regional Board.

10. In accordance with the FCP and its amendments, Disposal Area C and the slopes of the Disposal Area B at the Landfill are closed with prescriptive covers meeting the requirements in section 21090 of 27 CCR, while the other areas of the Landfill are closed with an engineered monolithic alternative final cover that is allowed in section 20080(b) of 27 CCR. The engineered monolithic cover is composed of at least three feet of compacted soil with a permeability of no greater than $1x10^{-5}$ cm/second underlain by a foundation layer composed of at least two feet of existing interim soil cover materials.

11. The Discharger has completed a water balance performance evaluation for the monolithic final cover on the slopes of Disposal Areas A and AB+ that has demonstrated that the percolation of water through the monolithic final cover is less than what is predicted through a prescriptive final cover required in 27 CCR. A similar evaluation study will be conducted at the top decks of Disposal Areas AB+, subject to the approval by the Regional Board Executive Officer (Executive Officer).

GREEN RECYCLING FACILITY

12. The December 2002 amendments to the FCP and FPCMP submitted by the Discharger to the Regional Board proposed a green waste/yard trimmings composite facility, referred to as the Lake View Terrace Green Recycling Facility (Green Recycling Facility), that is located on the decks of Deposal Areas A and B at the closed Landfill. The adoption of this Order constitutes the official approval of the amendments to the FCP and FPCMP by this Regional Board.

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13. The proposed Green Recycling Facility will receive yard trimmings and discarded vegetation collected by the City of Los Angeles Solid Resource Program and process these materials into mulch and compost. The facility will be built in several phases and, at its full capacity, is expected to receive approximately 300 tons per day of vegetation materials.

14. To facilitate the Green Recycling Facility, the decks of Disposal Areas A and B will be paved with an Asphaltic Cement Concrete (ACC) pad at least six inches thick on top of the monolithic final cover. The ACC pad includes (from top to bottom): a 3-inch thick ACC overlay, a non-woven fabric, a 40-mil tack coat, a 3-inch ACC underlying pavement, a 12-inch thick base course, and a minimum of one foot of foundation course on the final cover of the landfill.

15. Green waste and yard trimmings will be brought to the Green Recycling Facility, contaminants removed, and ground to an appropriate size for either mulch or composting. Materials to be composted will be formed into windrows. Air will be pulled through the windrows into pipes that are installed within the ACC layer. The windrows will be turned regularly and water will be added to maintain a moisture content of 40 to 60 percent. The air induced from the windrows will be treated through two biofilters that will be constructed on the top deck of the adjacent Disposal Area AB+.

16. The ACC pad perimeter includes a curb to contain water on the site. All stormwater runoff from green waste composting areas will be conveyed to a drainage clarifier and then to a sediment basin before being discharged to the stormwater control system under a General Stormwater Permit issued by the Regional Board.

ENVIRONMENTAL SETTING

17. A variety of land uses exist within one mile of the Landfill. The Lake View Terrace residential community is immediately to the south, with some residences within 300 feet of the site. The Kagel Canyon residential community is to the east, with some residences within 1,000 feet of the site. The Blue Star Mobile Home Park is immediately to the west, with some residences within 300 feet of the site. Light manufacturing, commercial, and agricultural uses are west along Lopez Canyon Road. Sparsely developed foothill areas border the north and northeastern site boundaries.

18. The Landfill is located in the foothills of the San Gabriel Mountains on the northeast rim of the San Fernando Valley. It is mainly underlain by bedrocks of the Tertiary Towsley Formation that is composed predominantly of inter-bedded shale, siltstone, and sandstone. The northern-most part of the ~~l~~Landfill property (not used for waste disposal) is underlain by the Tertiary-Quaternary Saugus Formation, which is composed ~~of~~ predominantly of massive sandstone and conglomerate bedrock. Relatively scarce alluvium is locally derived and is present only in drainage channels and canyon bottoms.

19. The Landfill is located within an Alquist-Priolo Special Studies Zone, which identifies it as an area that may be subject to severe seismic impacts. Several segments of the San Fernando Fault Zone, including the Tujunga Fault, the Kagel Fault, and the Oak Hill Fault, are present in the area and showed activity in the February 9, 1971 Sylmar Earthquake (Magnitude 6.~~6~~4). The Tujunga Fault crosses the southwest corner of the ~~property~~ site just north of the landfill entrance. The Kagel Fault crosses the southeast corner of the site. The known portion of the Oak Hill Fault is 150 feet northwest of the ~~property~~site. The most recent major earthquake in the area, the January 17, 1994 Northridge Earthquake (Magnitude 6.7), resulted in minor damage, which was quickly repaired, but no slope movement at the Landfill occurred.

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20. A seismic analysis conducted for ~~this facility~~ the Landfill indicates that a magnitude 6.~~7~~5 earthquake on the San Fernando Fault Zone is the maximum probable earthquake (MPE) for the Landfill. ~~that is statistically likely to occur within 100 kilometers and within 100 years. The nearest fault capable of generating this magnitude earthquake is the San Gabriel Fault, which, at its nearest point, is four miles from the site.~~ The maximum credible earthquake (MCE) for the San Fernando Fault zone is also estimated to be a magnitude 6.5 earthquake. The ~~P~~peak horizontal acceleration ~~from the maximum credible earthquake (MCE)~~for either the MCE or the MPE is approximately 0.69g. The final cover of the ~~l~~Landfill is designed to withstand an earthquake of this magnitude.

21. The Landfill is within the Los Angeles River Watershed. Stormwater runoff from ~~the~~ most of the site is collected in debris basins that drain either to the Hansen Dam Flood Control Basin or the Lopez Canyon Flood Control Channel and eventually reaches the Los Angeles River.

22. Groundwater at the Landfill site and its vicinity is mostly within alluvium deposits. Groundwater wells in the Towsley Formation do not yield significant quantities of water. However, wells in the Saugus Formation readily yield useable quantities of good quality water. Groundwater near the site mainly comes from infiltration of precipitation. Groundwater flow at the site generally follows the directions of pre-landfill drainage, along canyon axes, towards the San Fernando Valley Groundwater Basins.

23. The site is not within a 100-year flood plain or in a designated flood prone area.

GROUNDWATER MONITORING

24. The Discharger has implemented a Monitoring and Reporting Program (M&RP No. CI-5636) at the Landfill since 1988. Current groundwater monitoring network at the site includes ten groundwater monitoring wells (MW92-1, MW92-2, MW93-1, MW93-2, MW95-1, MW95-2, MW95-3, MW95-4, MW95-5, MW95-6). The locations of the groundwater monitoring points are displayed in Figure 3. The quality of the groundwater, as indicated by the monitoring data obtained in the last 10 years, is summarized in Table 1. No landfill impact to groundwater quality has been observed at the site.

25. Like most landfills, the Lopez Canyon Landfill exhibits considerable natural geographic variation, as indicated by the groundwater monitoring data in Table 1. Under such conditions, data from background wells cannot be used to compare with data from downgradient wells to detect a release of pollutants from the ~~l~~Landfill. The Discharger has therefore been using an intra-well-comparison style of monitoring at the site. Under this approach, each well's own prior data is used as the reference against which new data is compared. Besides the constituents listed in Table 1, trace metals, volatile organic ~~chemicals~~ compounds (VOCs), semi VOCs, and some other inorganic constituents have also been monitored at the site.

26. To date, no VOCs or semi-VOCs, which are common indicators for landfill impacts to groundwater, have been detected and confirmed at any groundwater monitoring wells at the site. No trace metal concentrations that are higher than drinking water maximum contamination levels (MCLs) have been detected at any monitoring wells at the Landfill either.

27. In 1988, the Discharger installed two lysemeters at the site in an attempt to monitor the water quality in the vadose zone. However, because no liquid samples could be obtained from these lysemeters, they were decommissioned in 1994 during the closure of the "A" canyon.

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Table 1. Summary of Groundwater Monitoring Data at Lopez Canyon Landfill
(Concentrations are in mg/L except for pH)

Well No.	Location	Depth (ft)	Average Concentration (Standard Deviation)					Sampling Events
			pH	Nitrate	Chloride	Sulfate	TDS	
MW92-1	Downgradient	53	6.8 (0.23)	3.17(2.44)	97(24)	3251(481)	5317(709)	23
MW92-2	Downgradient	211	7.18(0.30)	0.14(0.08)	64.7(10.6)	2935(358)	4741(530)	23
MW92-3[1]	Background	38	7.78(0.45)	1.25(0.72)	408(691)	392(327)	1263(528)	19
MW93-1	Downgradient	30	7.41(0.26)	2.99(2.11)	97(28)	2631(177)	4458(292)	22
MW93-2	Downgradient	153	6.99(0.14)	0.34(0.48)	56(10)	2254(109)	3699(361)	20
MW95-1	Downgradient	410	7.37(0.40)	0.18(0.20)	34(11)	3212(138)	5212(230)	11
MW95-2	Background	150	7.72(0.12)	0.09(0.12)	14(4)	416(40)	1041(342)	14
MW95-3	Background	80	7.12(0.09)	N/A	120(41)	381(208)	1548(357)	14
MW95-4	Downgradient	62	7.33(0.17)	0.21(0.29)	18(5)	574(27)	1304(81)	14
MW95-5	Background	30	6.72(0.94)	1.71(1.19)	62(9)	691(318)	1537(514)	14
MW95-6	Downgradient	52	7.59(0.26)	0.74(0.7)	49(15)	676(238)	1289(181)	12

LANDFILL GAS AND LEACHATE MANAGEMENT

28. The Discharger has installed a landfill gas (LFG) control system at the ~~l~~Landfill that consists of vertical and horizontal wells, lateral collectors, headers, and a flare station with seven flares where LFG is either disposed by combustion at a flare station at the site or used for power generation.

29. A 6.0 megawatt electric generating facility that uses approximately 50 per cent of the LFG at the site has been operated by United Gasco/Minnesota Methane, ~~who is contracted~~under contract with the Discharger, since January 1999. Since August 2002, the Los Angeles City Department of Water and Power has operated a Micro-turbine electric generating facility that generates 1.5 megawatt power using LFG from the Landfill. Both energy facilities are located within the Landfill territory. Waste water or gas condensate generated at these two facilities are either discharged to the sanitary sewer system or hauled away for legal disposal.

30. Landfill leachate, landfill gas condensate, and any waste water generated at the electric generating facilities at the site are discharged to a sanitary sewer system after proper treatment. Landfill leachate is monitored at monitoring wells LCLC-C at Disposal Area C and LCLC-AB at Disposal Area AB. However, LCLC-AB is often dry and no leachate sample can be extracted from it.

STORM WATER

31. Pursuant to section 402 (p) of the Clean Water Act (33 USC ~~§~~section 1342(p)) 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 Lopez Canyon Landfill is currently

[1] MW92-3, a background groundwater monitoring well, has been decommissioned by the Discharger because of difficult accessibility.

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regulated under the general NPDES permit (WDID No. 4 19S005013, enrolled on April 8, 1992). The Discharger is implementing a Storm Water Pollution Prevention Plan (SWPPP) at the Landfill as required by the general NPDES permit.

CEQA AND ADMINISTRATIVE MATTERS

32. 27 CCR, which became effective on July 18, 1997, clarified the roles and responsibilities of the California Integrated Waste Management Board (CIWMB) and the State Water Resources Control Board (SWRCB), as well as the Regional Water Quality Control Boards (RWQCBs), in regulating municipal solid waste disposal facilities. The 27 CCR regulations combine disposal site/landfill regulations of the CIWMB and SWRCB that were previously contained in CCR title 14 and CCR title 23, chapter 15.

33. 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). The Basin Plan (including its subsequent amendments) designates the following beneficial uses 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, as they are met, are in conformance with the goals of the Basin Plan.

34. In accordance with the California Environmental Quality Act (CEQA), the City of Los Angeles Board of Public Works adopted a Final Mitigated Negative Declaration for the proposed green waste composting operations at the Landfill on November 24, 2003. The revision of waste discharge requirements for the closed Landfill is exempt from the provisions of the California Environmental Quality Act (Public Resources Code 21100 et seq.) as an existing facility pursuant to title 14, California Code of Regulations, Chapter 3, section 15301.

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

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

Pursuant to section 13320 of CWC, any aggrieved party may seek review of this Order by filing a petition with the State Board. The petition must be received by the State Water Resources Control Board, P.O. Box 100, Sacramento, CA 95812, within 30 days of the date this Order is adopted.

IT IS HEREBY ORDERED~~,~~ that the City of Los Angeles (Discharger)~~,~~ shall comply with the following at the Lopez Canyon Landfill:

A. Specifications

1. The ~~Lopez Canyon~~ Landfill is in the process of final closure. No municipal solid waste or any other wastes, may be received at the site for the purpose of disposal.

2. Inert soil and asphalt materials that are used for the construction or repairing of the final cover or other facilities at the site may be imported to the site, provided that the source,

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volume, and usage of such imported materials are reported in the regular semi-annual report for the Landfill.

3. The composting and recycling operations at the Green Recycling Facility must meet the requirements under Section D of this Order.

4. The Discharger shall remove and relocate any unacceptable wastes that arrive at the site in violation of the requirements in this Order.

B. 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 objectives for the groundwaters or surface waters as established in the Basin Plan to be exceeded; ~~n~~or
   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 origin 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.

C. Requirements for Closure and Post-Closure Maintenance

1. This Order approves the amendments to the FCP and FPCMP that were submitted to the Regional Board by the Discharger on December 23, 2002 and October 22, 2003, respectively. Closure and Post Closure maintenance of the Landfill shall be conducted in accordance with the FCP and FPCMP and their amendments as approved by the Executive Officer.

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2. No later than October 30, 2006, the Discharger shall submit a final water balance performance evaluation report for the alternative final cover of the Landfill that includes monitoring data at the AB+ deck of the Landfill.

3. Unless otherwise approved by the Executive Officer, the Discharger shall complete all final closure construction activities at the Landfill no later than May 9, 2008.

4. Within 120 days after completing the construction of the final cover system, the Discharger shall submit a final construction quality assurance (CQA) report that meets the requirements of section 20324 of 27 CCR to the Regional Board.

5. The Discharger shall comply with all applicable requirements in ~~A~~article 2, ~~S~~subchapter 5, ~~C~~chapter 3, division 2 of 27 CCR (commencing at section 21090).

6. The Landfill's post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units at the site will not threaten water quality.

7. 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.

8. The landfill shall have containment structures that are capable of preventing degradation of the waters of the state. 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, are subject to the Executive Officer' s review and approval prior to construction of any containment structure.

9. 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 maximum probable earthquake (MPE) for interim slopes, or maximum credible earthquake (MCE) for final refuse slopes. Critical slopes shall be designed to have factors of safety (FS) no less than 1.5. If a Newmark-type seismic deformation analysis is used in lieu of achieving an FS of no less than 1.5, the calculated permanent seismic deformation must not exceed 6 inches for liner systems and must not exceed 36 inches for the final cover.

10. 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.

11. The Discharger shall submit detailed preliminary 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.

12. The construction report, including drawings documenting "as-built" conditions, shall be submitted within 120 days after the completion of construction. If the "as-built" conditions are virtually identical to the approved preliminary plans and specifications, only change sheets need be submitted in lieu of a complete set of drawings.

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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.

14. Surface drainage from the Landfill is subject to State Board Order 97-03-DWQ (general industrial storm water permit). Within 60 days of the adoption~~ng~~ of this Order, the Discharger shall revise the Storm Water Pollution Prevention Plan (SWPPP) that is required under the general industrial storm water permit to include Best Management Practices (BMPs) that are applicable to the activities at the site.

D. Requirements for Green Waste Recycling and Composting

1. The Discharger shall inform Board staff at least 14 days prior to initiating green waste composting at the site. Such activities shall not start until the facility is inspected by Board staff and approved by the Executive Officer.

2. The waste received at the Green Recycling Facility shall be limited to discarded vegetation, wood waste, and yard trimmings, as proposed. The average weight of such waste accepted at the Green Recycling Facility, calculated on a monthly basis, shall not exceed 300 tons per day.

3. Impurities that are not compatible to the operations at the Green Recycling Facility shall be separated, to the maximum extent feasible, before the green wastes are processed. Such ~~wastes~~ impurities shall be collected and legally disposed offsite.

4. The receipt, preparation, processing, composting, and storage of green wastes and composting products shall be restricted within the ACC paved areas only, as proposed. Any revision or modification of the designated area, or any proposed change in operations at the facility, must be submitted in writing to the Regional Board for the Executive Officer's approval before the proposed change or modification is implemented.

5. The composting, stockpiling, screening, processing and transporting of green wastes shall not cause or threaten to cause a nuisance or pollution as defined in section 13050 of the CWC.

6. No additives, other than uncontaminated water, shall be added to the green wastes and composting products, unless approved by the Executive Officer.

7. Water used for green waste composting and site maintenance shall be limited to the amount that is necessary. Such use of water shall not result to the production of leachate released from the compost or any runoff or ponding of surface water at the site.

8. No pesticides, herbicides, or fungicides should be applied to the finished product unless ~~the use of~~ their uses are for pest or weed control. Board staff must be informed at least seven days before such chemicals are applied at the site.

9. The Discharger shall inspect the Green Recycling Facility, at least on a monthly basis, for the emergence of leachate, ponding, or surface failures such as cracking or subsidence and shall take immediate action to correct the problems, if any of such conditions are observed. The results of inspections, including the date, findings, the person who conducted the inspection,

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and any corrective actions that have been taken, shall be reported in the regular monitoring reports that are required under M&RP No. CI-5636.

E. Requirements for General Site Operations

1. The Discharger has a continuing responsibility for correcting any problems which may arise in the future as a result of waste discharged at the Landfill, 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 for other purposes.

2. The Discharger shall maintain an operating record for the Landfill in accordance with 40 CFR, §section 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.

3. 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 §section 20365 and §section 21090(b)(1) of 27 CCR. When necessary, temporary structures shall be installed as needed to comply with this requirement.

4. 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.

5. 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.

6. The Discharger shall comply with notification procedures contained in §section 13271 of the CWC in regards to the discharge of hazardous wastes and 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 the semi-annual monitoring reports submitted under M&RP No. CI-5636.

7. The migration of gases from the Landfill shall be controlled as necessary to prevent water pollution, nuisance, or health hazards.

8. 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.

9. Gas condensate gathered from the gas monitoring and collection system at the Landfill shall not be returned to the Landfill unless approved by the Executive Officer. Any proposed modifications or expansions to this system shall be designed to allow the collection, testing and treatment, or disposal by approved methods, of all gas condensate produced at the Landfill.

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10. The Discharger shall intercept and remove any liquid detected in all LCRSs at the Landfill to a legal point of disposal and leachate shall not be returned back to the Landfill unless approved by the Executive Officer. Any leachate determined to be hazardous shall be transported by a licensed hazardous waste hauler to an approved treatment or disposal facility.

11. 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 at the Landfill shall be reported to the Regional Board.

12. 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.

13. 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.

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

15. 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.

16. The Discharger shall report any noncompliance or any incident resulting from Landfill operations that are in violation of this Order. Any such information shall be provided verbally to the Regional Board within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided 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 Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

17. When 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.

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F. 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-5636. 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. In accordance with 27 CCR, §section 20405, the compliance point(s) where WQPSs apply shall be located along downgradient edges of waste management facilities at the Landfill or an alternate location approved by the Executive Officer. All the downgradient groundwater monitoring wells included in M&RP No. CI-5636 are designated Points of Compliance.

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

G. Provisions for Groundwater Monitoring

1. The Discharger shall implement the attached M&RP No. CI-5636, 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) discharges of waste 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-5636. 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 renders 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-5636, as directed by the Executive Officer. Additionally, monitoring reports shall be prepared and signed by a registered civil engineer or registered geologist. M&RP No. CI-5636 is subject to periodic revisions as warranted and approved by the Executive Officer.

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

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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.

6. 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-5636 as adopted or as revised by the Executive Officer.

7. 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).

8. 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.

9. 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).

10. 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.

11. The Discharger shall use the statistical procedures contained in 27 CCR section 20415(e)(7), to determine if there is a statistically significant increase for any background indicator parameter. Upon approval of the Executive Officer, alternative statistical procedures may be used.

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12. In the event that a statistically significant increase is observed for any background indicator parameter, the Discharger shall establish an evaluation program in accordance with 27 CCR section 20425, unless such a program has already been submitted.

13. If evaluation monitoring determines that there is a statistically significant increase of any background indicator parameter that ~~is~~ has resulted by the discharge of waste at the site, then the Discharger shall institute a corrective action monitoring program in accordance with 27 CCR section 20430.

H. 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.

2. No landfill leachate or landfill gas condensate shall be applied at the site unless it is adequately treated and the use is authorized by WDRs adopted by this Regional Board.

3. The existing gas monitoring system and gas collection system and/or expansion of these systems for the Landfill shall be designed so that gas condensate is not returned to the waste management unit.

4. No water shall be routinely applied to the Landfill except for landscape irrigation, dust control, and green waste recycling/composting. Water used for these purposes shall only be applied by spraying, and in quantities not to exceed what is necessary. Significant overflow or runoff caused by on-site water uses are prohibited.

5. Any proposed irrigation system at the Landfill shall be designed to deliver only the amount of water necessary to sustain the growth of a healthy vegetative cover. The irrigation system shall be shut down to prevent over irrigation when the vegetation has received a sufficient amount of water.

6. For any water lines overlying waste, the design shall consider, but not be limited to, the following:

   a. Flexible connectors:
   b. Secondary containment;
   c. Moisture sensors within secondary containment;
   d. Rain sensors;
   e. Annual leak testing;
   f. Automatic shutoff valves; and
   g. A maintenance plan describing the inspection and maintenance schedule for all mitigation devices.

I. 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:

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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, 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 1, all drainage control system construction and maintenance activities shall be completed. The Annual Summary Report required under M&RP No. CI-5636 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 licensed surveyor, 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.

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~~7~~6. 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.

J. General Provisions

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

2. 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.

3. This Order includes the attached *"Standard Provisions Applicable to Waste Discharge Requirements*", adopted November 7, 1990 (Attachment W) which is incorporated herein by reference. If there is any conflict between provisions stated herein and the federal regulations or standard provisions, the provisions stated herein will prevail.

4. 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.

5. 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.

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

7. The Discharger is the responsible party for this Order and the attached M&RP No. CI-5636 for the Landfill. The Discharger shall comply with all conditions in this Order. 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 this Regional Board.

8. The Discharger shall within three working days of a significant earthquake event, submit to the Regional Board 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.

9. 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.

10. 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.

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11. 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.

12. 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.

13. 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.

14. 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.

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

16. 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.

17. 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 projectLandfill. This Order may be revised by the Executive Officer as additional information from the project becomes available.

18. Failure to comply with the terms and conditions of this Order may result in imposition of civil liability against the Discharger by this Regional Board, either by the 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.

K. Rescissions

1. Except for enforcement purposes, Regional Board Order No. 91-122, adopted on November 13, 1991, is hereby rescinded.

I, Jonathan Bishop, Interim Executive Officer, do hereby 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 7December 9, 2004.

_____
Jonathan Bishop
Executive Officer

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Figure 1

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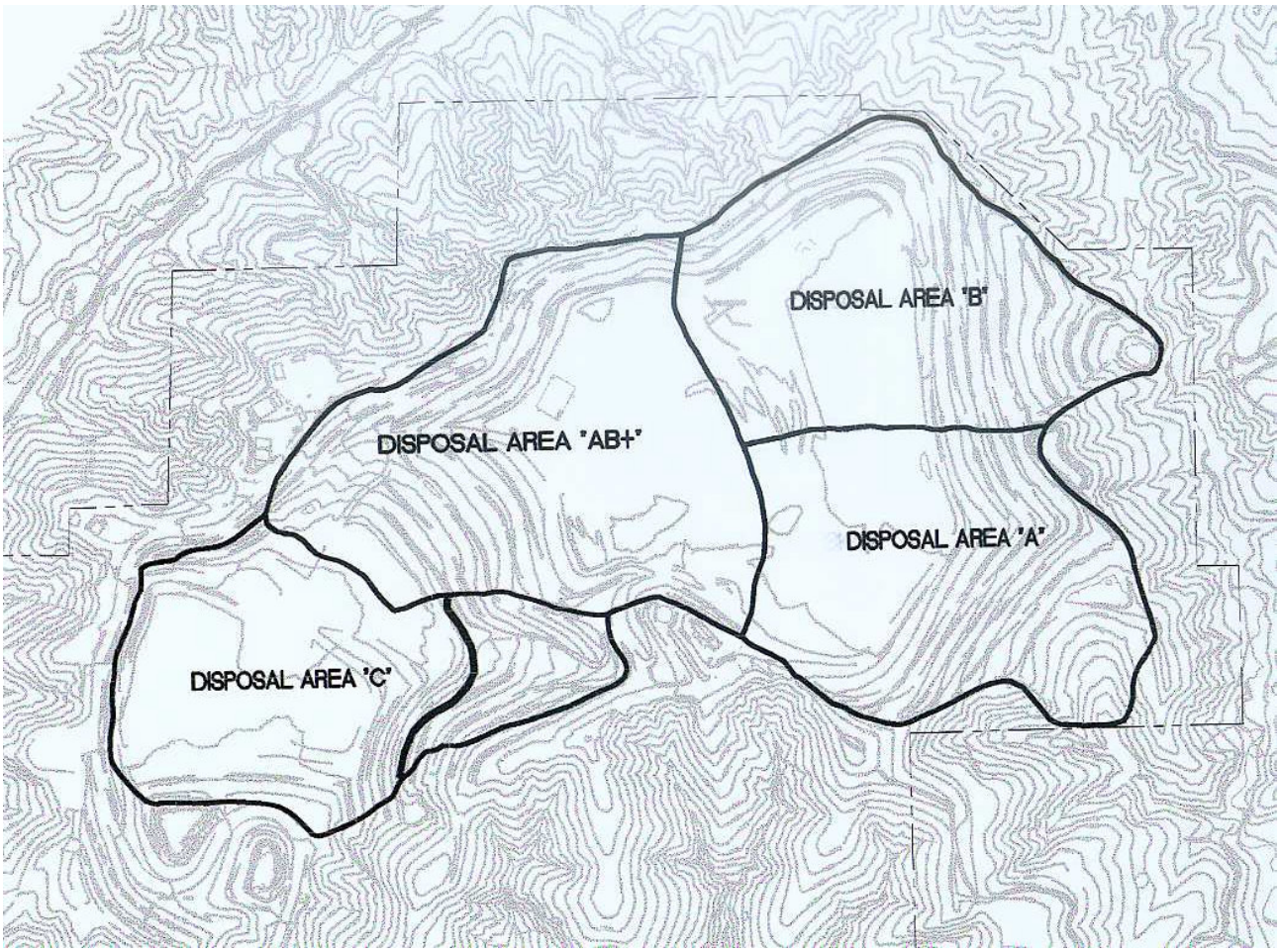

Figure 2

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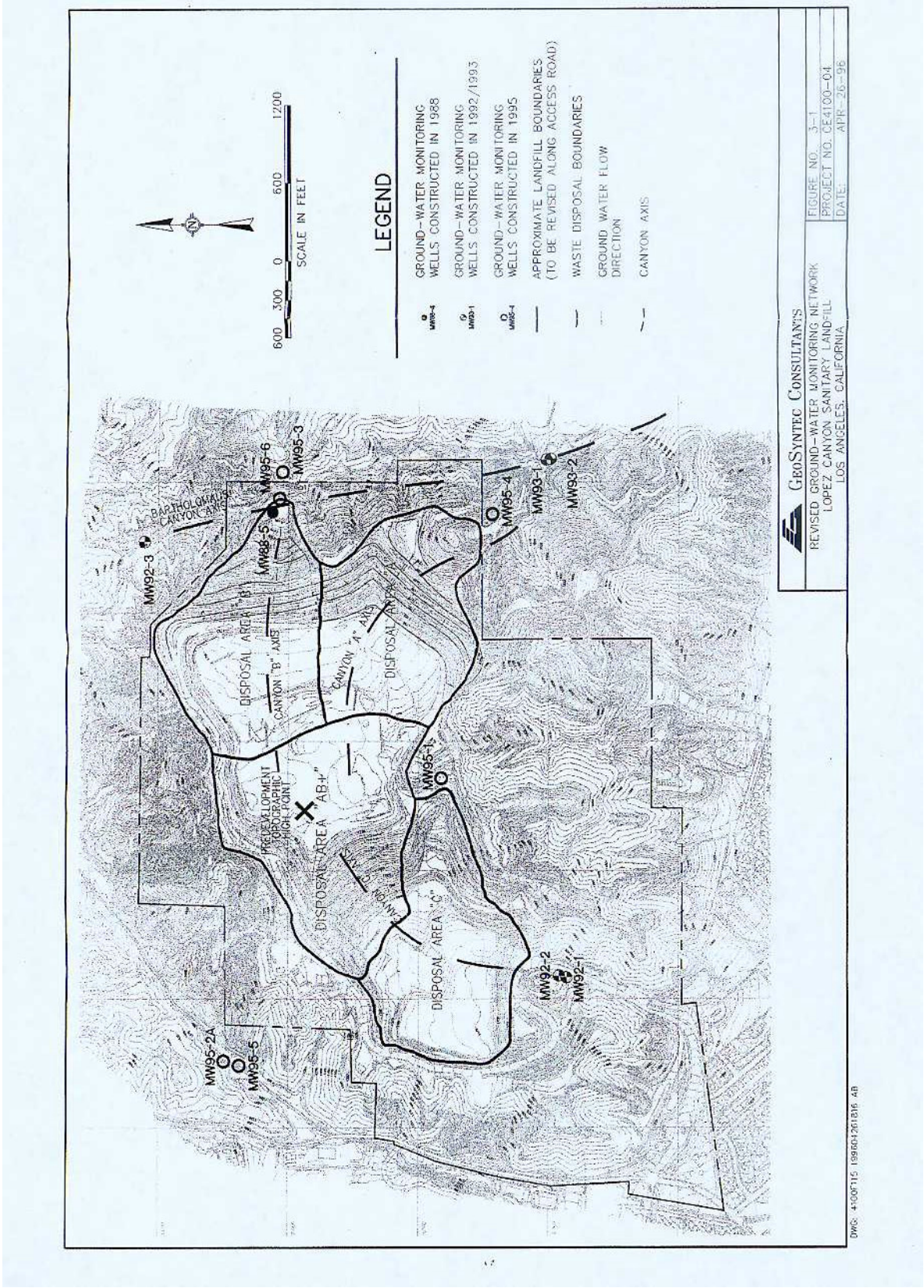

Figure 3

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