

Los Angeles Regional Water Quality Control Board

March 29, 2016

Mr. Khalil Gharios, Division Manager
City of Los Angeles Department of Public Works
1149 South Broadway Street, 8th Floor
Los Angeles, California 90015

**RESPONSE TO COMMENTS - TENTATIVE WASTE DISCHARGE REQUIREMENTS –
LOPEZ CANYON LANDFILL, LOS ANGELES, CALIFORNIA (FILE NO. 69-068, ORDER NO.
R4-2004-0176, CI-5636, WDID NO. 4B190321009)**

Dear Mr. Gharios,

The Regional Water Quality Control Board (Regional Board) is in receipt of your letter dated March 24, 2016, that includes comments regarding the tentative revised waste discharge requirements (WDRs) for the Lopez Canyon Landfill, a former municipal solid wastes disposal facility at 11950 Lopez Canyon Road, Los Angeles, California. The tentative WDRs were sent to you and other interested parties on February 24, 2016.

Regional Board staff has reviewed the comments and prepared the attached responses to comments. Also attached are copies of the comments received and a revised tentative Order that includes all revisions made after March 24, 2016.

In accordance with administrative procedures, this Regional Board will consider the enclosed WDRs, at a public hearing to be held at 9:00 AM on April 14, 2016, at the City of Simi Valley Council Chambers, located at 2929 Tapo Canyon Road, Simi Valley, California 93063. The Regional Board will hear any testimony pertinent to this discharge, the tentative requirements, and monitoring and reporting program. It is expected that the Regional Board will take action at the hearing; however, as testimony indicates, the Regional Board at its discretion may postpone action.

If you have any questions or need additional information, please contact Mr. Douglas Cross (Project Manager) at (213) 620-2246 or dcross@waterboards.ca.gov, or me at (213) 620-2253 or wyang@waterboards.ca.gov.

Sincerely,



Wen Yang, Ph.D., C.E.G.
Senior Engineering Geologist
Land Disposal Unit

Enclosures:

1. Response to Comments
2. Comments Received
3. Tentative WDRs Order No. R4-2016-XXXX showing changes
4. Tentative Monitoring and Reporting Program CI-5636 showing changes

cc: Ms. Leslie Graves, State Water Resources Control Board
Ms. Shannon Hill, CalRecycle
David Thompson, City of Los Angeles Local Enforcement Agency

Response to Comments

Item 5 (Lopez Canyon Landfill)

Commenter (Date submitted)	Summary of Comments	Response / Action
City of Los Angeles, Bureau of Sanitation (Discharger) (3/24/2016)	<p>1) Tentative Order Finding No. 6:</p> <p>The Disposal Area C was closed using the monolithic alternative final cover.</p>	<p>These comments provide factual corrections or modifications to the findings of the tentative WDRs. Staff agrees with the comments and has made appropriate changes to the findings in responding to the comments.</p>
	<p>2) Tentative Order Finding No. 12:</p> <p>The site can have up to approximately 12,500 cubic yards (CY) of compost, manure, and feedstock at any time. Approximately sixty percent of the feedstock is mulched and transported off site and the remaining feedstock is composted.</p>	
	<p>3) Tentative Order Finding No. 13:</p> <p>The mulch is used as groundcover by farms and the composted materials are transported to give away sites in the city, or given to schools and other organizations. The compost is sometimes sold in bulk for landscape and other companies.</p>	
	<p>4) Tentative Order Finding No. 33:</p> <p>Currently the flair station is on stand-by and used only when the power plant is down.</p>	
	<p>5) Tentative Order Finding No. 34:</p> <p>The power plant presently uses 100% of the gas produced at the site. The DPW micro-turbine facility has been put on stand-by.</p>	
	<p>6) Tentative Order Specification No. A.5:</p> <p>Manure is a feedstock and not considered an additive; however, if it is considered an additive by the RWQCB we request that the percent be increased to 20% as allowed by the SCACMD.</p>	<p>Staff agrees with the comment. Specification No. A.5 has been revised pursuant to the comment.</p>

Response to Comments

Item 5 (Lopez Canyon Landfill)

Commenter (Date submitted)	Summary of Comments	Response / Action
City of Los Angeles, Bureau of Sanitation (Discharger) (3/24/2016)	7) Tentative Order Prohibitions No. B.6: Add "give-away" after operation.	Staff believes that any "give-way" activities, if within the permitted composting area, are part of "operations". Revision of Prohibition No. B.6 is therefore not necessary.
	8) Tentative Order No. C.6 (Requirements for Post-Closure Maintenance): The NPDES permit is not applicable to closed landfills. Any compost NPDES requirements are included in this WDR order. Refer to related comment number 11.	Whether the Landfill is subject to the NPDES General Industrial Permit will be evaluated by Regional Board staff separately. Requirement No. C.6 has been revised to reflect this fact.
	9) Tentative Order No. D.1 (Requirements for Green Materials Recycling and Composting): The site negative declaration allows 1,000 tons/day to be processed. Can the average rate be increased to 1,000 tons/day?	Staff agrees with this comment. Requirement No. D.1 has been revised pursuant to the comment.
	10) Tentative Order No. D.1 (Requirements for Green Materials Recycling and Composting): Add "manure" after vegetation on list of wastes received.	Staff agrees with this comment. Requirement No. D.1 has been revised pursuant to the comment.
	11) Tentative Order No. D.3.b (Requirements for Green Materials Recycling and Composting): Based on our review of the regulations, as stated under item 8 (comment 8), the NPDES permit is not applicable to closed landfills. The monitoring requirements for stormwater runoff related to the composting facility should be stipulated in these WDR(s). The reference to NPDES should be removed.	Refer to Response to Comment No. 8.
	12) Tentative Order Requirements No. D10 (for Green Materials Recycling and Composting): Add that water can be used for maintaining pile moisture and dust control.	Staff does not believe that the existing language in Requirement No. D.10 will prevent the use of water for maintaining pile moisture and dust control. The requirement has therefore not been revised.

Response to Comments

Item 5 (Lopez Canyon Landfill)

Commenter (Date submitted)	Summary of Comments	Response / Action
City of Los Angeles, Bureau of Sanitation (Discharger) (3/24/2016)	13) Tentative Order No. D.10. (Requirements for Green Materials Recycling and Composting): Remove "and site maintenance".	Staff does not agree with this comment because we believe that site maintenance should be part of the composting operations at the facility. Requirement No. D.10 has therefore not been revised pursuant to the comment.
	14) Tentative Order No. G.6. (Requirements for Onsite Water Use): Add "composting operation" after dust control.	Staff agrees with this comment. Requirement No. G.6 for Onsite Water Use has been revised pursuant to the comment.
	15) Tentative MRP No. C.2.a (Requirements Water Quality Monitoring And Inspection Program): Replace Full Appendix II Scan within 30 days of WDR approval with "continue current 5-year Scan schedule".	MRP Requirement No. C.2. is in place to cover monitoring points that have been added or missed since the last 5-year scan. It is not applicable for wells that are currently included in continue 5-years scan schedule. The requirement is therefore not changed in response to the comment.
	16) Tentative MRP No. C.2.n (Requirements Water Quality Monitoring And Inspection Program): Change to sample location from inside the clarifier to "at the inlet of clarifier".	Staff agrees with this comment. MRP Requirement No. C.2.n has been revised pursuant to the comment.
	17) Tentative MRP No. C.2.m and n. (Requirements Water Quality Monitoring And Inspection Program): Change the NPDES requirement to WDR specific monitoring and sampling standards and include the MRP permit requirements only.	Staff agrees with this comment. MRP Requirements No. C.2.m and No. C.2.n have been revised pursuant to the comment.
	18) Tentative MRP Requirements Water Quality Monitoring And Inspection Program Table T-2: Addition of Bromide, CO2, Fluoride, Specific Conductance (Field), Temperature (Field), Turbidity (Field) is not necessary. This expands the list to constituents that have not been previously found at the Landfill.	Staff agrees with the comments. MRP Table T-2 has been revised pursuant to the comment.

CITY OF LOS ANGELES

CALIFORNIA



ERIC GARCETTI
MAYOR

March 24, 2016

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Attn: Dr. Wen Yang, Chief of Landfill Disposal Unit
Douglas Cross, Engineering Geologist

LOPEZ CANYON LANDFILL (FILE NO. 69-068, ORDER NO. R4-2004-0176, CI-5636) TENTATIVE WASTE DISCHARGE REQUIREMENTS

LA Sanitation has completed its review of the Tentative Waste Discharge Requirements (WDR) for Lopez Canyon Landfill issued by the RWQCB on February 24, 2016. The following are our comments for your consideration and inclusion in the final WDR:

1. Page 2, item 6 first sentence, the Disposal Area C was closed using the monolithic alternative final cover.
2. Page 2, item 12, the site can have up to approximately 12,500 cubic yards (cy) of compost, manure, and feedstock at any time. Approximately sixty percent of the feedstock is mulched and transported off-site and the remaining feedstock is composted.
3. Page 3, item 13, the mulch is used for ground cover by farms and composted materials are transported to give away sites located in the City, or given to schools and other organizations. The compost is sometimes sold in bulk for landscape or other companies.
4. Page 6, item 33, currently, the flare station is on stand-by and used only when the power plant is down.
5. Page 6, item 34, the power plant presently uses 100% of the gas produced at the site. The DWP Micro-turbine facility has been put on stand-by.
6. Page 8, item 5, manure is a feedstock and not considered an additive; however, if it is considered an additive by the RWQCB we request that the percent be increased to 20% as allowed by SCAQMD.
7. Page 10, item 6, add "give-away" after operation

zero waste • one water

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

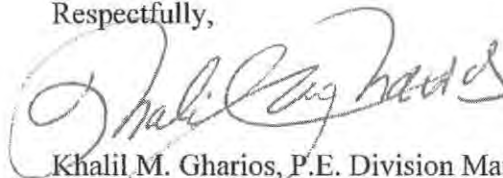
Recyclable and made from recycled waste



8. Page 11, item 6, the NPDES permit is not applicable to closed landfills. Any composting NPDES requirements are included in this WDR order. Refer to related comment number 11.
9. Page 12, item 1, the site negative declaration allows 1000 tons/day to be processed. Can the average rate be increased to 1000 tons/day?
10. Page 12, item 1 add "manure" after vegetation on list of wastes received.
11. Page 13, item 3b, based on our review of the regulations, as stated under item 8, the NPDES permit is not applicable to closed landfills. The monitoring requirements for stormwater runoff related to the composting facility should be stipulated in these WDR. The reference to NPDES should be removed.
12. Page 13, item 10, add that water can be used for maintaining pile moisture and dust control.
13. Page 13, item 10, remove "and site maintenance."
14. Page 18, item 6, add "composting operation" after dust control.
15. Page T-8, item a, replace Full Appendix II Scan within 30 days of WDR approval with "continue current 5-year Scan schedule".
16. Page T-13, item n, change to sample location from inside the clarifier to "at the inlet of clarifier."
17. Page T-13, item m and n, change the NPDES permit requirement to WDR specific monitoring and sampling standards and include the MRP permit requirements only.
18. Page T-18, Table T-2, addition of Bromide, CO₂, Fluoride, Specific Conductance (Field), Temperature (Field), Turbidity (Field) are not necessary. This expands the list to constituents that have not been previously found at the Landfill.

If you have any questions concerning this submittal, please contact John Hamilton at (213) 847-2700.

Respectfully,



Khalil M. Gharios, P.E. Division Manager
Solid Resources Processing and Construction Division

KMG:jh

c: David Thompson, LEA
Rosalia Rojo, LASAN

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

ORDER NO. R4-2016-0XXX

**WASTE DISCHARGE REQUIREMENTS
FOR CLOSURE AND POST CLOSURE MAINTENANCE**

**THE CITY OF LOS ANGELES
(LOPEZ CANYON LANDFILL)
(FILE NO. 69-068)**

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 closed Lopez Canyon Landfill (Landfill) 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 property within the City of Los Angeles and is 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. The closed Landfill currently receives green materials for recycling and composting.
4. 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 of less than 1×10^{-6} cm/second, and is keyed in at least five feet into the bedrock.

POST-CLOSURE MAINTENANCE

5. The Landfill completed the final closure process in February 2011. 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.

6. 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 1×10^{-5} cm/second underlain by a foundation layer composed of at least two feet of existing interim soil cover materials.
7. 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.
8. The Discharger submitted a *Final Amendment to Closure Certification Report* (Amended Certification Report) along with a *Closure Construction Completion, Recordation, & As-Built Cost Letter*, both dated July 16, 2012, and a report titled *Additional Hydroseed Information*, dated August 10, 2012. The Amended Certification Report documents the final closure elements at the Landfill and was submitted to the Department of Resources Recycling and Recovery (CalRecycle), the City of Los Angeles Department of Building and Safety Local Enforcement Agency (City LEA), and this Regional Board in accordance with California Code of Regulations, Title 27 (27 CCR), Section 21880. On August 28, 2012, Regional Board staff approved the Amended Certification Report.

GREEN MATERIALS RECYCLING AND COMPOSTING OPERATIONS

9. The Discharger operates a green materials, recycling, and composting facility, referred to as the Lopez Canyon Environmental Center (Environmental Center), of approximately 19.8 acres, that is located on the decks of Disposal Areas A and B at the closed Landfill (Figure 3).
10. To facilitate the Environmental Center, the decks of Disposal Areas A and B have been paved with an Asphaltic Cement Concrete (ACC) pad of approximately 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.
11. The Environmental Center receives green materials, including yard trimmings and discarded vegetation collected by the City of Los Angeles Solid Resource Program, and processes these materials into mulch and compost. Green materials are brought to the Environmental Center and ground to an appropriate size for either mulch or composting. Physical contaminants are manually removed before the grinding process.
12. The site typically stockpiles up to approximately 12,500 cubic yards (cy) materials ~~(feedstocks) for the composting operations~~, including ~~approximately 320 cy of compost~~, manure, ~~with the rest being yard trimmings and woody materials feedstocks~~. The weekly average volume of green materials received is approximately 4,500 cy. Approximately 60 percent of the feedstocks is mulched and transported off site and the remaining Feedstocks feedstocks are formed into windrows and turned regularly for composting. Water is added to

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maintain a moisture content of 40 to 50 percent. Materials are composted for 21 days for green materials only piles and for 60 days if manure is added.

13. The mulch is used as groundcover by farms and the composted materials are transported to give away sites in the city, or given to schools and other organizations. The compost is sometimes sold in bulk for landscape and other companies. The majority of the completed product from composting operations is either transported to give away sites located in the city of Los Angeles or given to farmers for ground cover, as well as schools and other organizations. A portion of the compost is sold in bulk for landscaping or purchased by other companies.

REGULATORY HISTORY

14. This Regional Board adopted Resolution No. 70-05 on January 14, 1970, to regulate the waste disposal activities at the Landfill. On November 13, 1991, the Regional Board adopted Order No. 91-122 that contains Waste Discharge Requirements (WDRs) for the Landfill. Order No. 91-122 rescinded Resolution No. 70-05. On December 13, 2004, the Regional Board adopted Order No. 2004-0176 to revise the WDRs for the Landfill to reflect changes in site conditions and to include requirements for closure and post closure maintenance pursuant to 27 CCR pertaining to MSW landfills. Order No. 2004-0176 terminated Order No. 91-122.
15. On October 9, 1991, the United States Environmental Protection Agency (USEPA), under title 40 of the Code of Federal Regulations (40 CFR), Parts 257 and 258 (also known as "Subtitle D" regulations), revised existing regulations for MSW disposal facilities in response to the 1984 Hazardous and Solid Waste Amendments of the Resource Conservation and Recovery Act (RCRA) and added requirements addressing location restriction, facility operation and design criteria, groundwater monitoring and corrective action, closure and post-closure maintenance, and financial assurance. USEPA delegated the responsibility for implementing these regulations to states that have a fully approved landfill regulatory program. As responsible agencies for an approved state, the California State Water Resources Control Board (State Board) and the Regional Board revised WDRs for each MSW landfill in the Region to implement the federal 40 CFR regulatory requirements.
16. The State Board adopted Resolution No. 93-62 on June 17, 1993, 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 of 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. 2004-0176.
17. In accordance with the California Environmental Quality Act (CEQA), the City of Los Angeles Department of Public Works adopted a Final Mitigated Negative Declaration for the green materials composting operations at the Landfill on November 24, 2003. The current WDRs for the Landfill (Order No. 2004-0176) include requirements for both the postclosure maintenance of the closed Landfill and the composting operations at the site.
18. On August 4, 2015, the State Board adopted General Waste Discharge Requirements for

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Composting Operations, Order WQ 2015-0121-DWQ (General Order). However, if a composting operation is co-located at a landfill that has individual WDRs, the composting operation does not need to be covered under the General Order if the landfill's WDRs include requirements for the composting operation, as are incorporated in this Order (General Order, Finding 13).

19. California Water Code (CWC) section 13263 (e) 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. This Order revises the WDRs for the Landfill to include updated requirements and describe current site conditions. The Discharger has submitted to the Regional Board a revised report of waste discharger (ROWD) in accordance with the CWC, dated September 2015, and a revised ROWD dated December 16, 2015, to facilitate the revision of the WDRs.
20. This Order supersedes WDRs included in Regional Board Order No. R4-2004-0176 and incorporates requirements included in Order Nos. 93-062.

ENVIRONMENTAL SETTING

21. 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.
22. 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 Landfill property (not used for waste disposal) is underlain by the Tertiary-Quaternary Saugus Formation, which is composed predominantly of massive sandstone and conglomerate bedrock. Relatively scarce alluvium is locally derived and is present only in drainage channels and canyon bottoms.
23. 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 6.4). The Tujunga Fault crosses the southwest corner of the 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 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.
24. A seismic analysis conducted for the Landfill indicates that a magnitude 6.5 earthquake on the San Fernando Fault Zone is the maximum probable earthquake (MPE) for the Landfill. The maximum credible earthquake (MCE) for the San Fernando Fault zone is also estimated to be a magnitude 6.5 earthquake. The peak horizontal acceleration for either the MCE or the

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MPE is approximately 0.69g. The final cover of the Landfill is designed to withstand an earthquake of this magnitude.

25. The Landfill is within the Los Angeles River Watershed. Stormwater runoff from 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.
26. 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.
27. The site is not within a 100-year flood plain or in a designated flood prone area.

ENVIRONMENTAL PROTECTION AND MONITORING SYSTEMS

28. 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 was excavated from within the site property, or provided by reclaiming clean dirt loads from outside sources.
29. The Discharger has implemented a Monitoring and Reporting Program (MRP No. CI-5636) at the Landfill since 1988. Current groundwater monitoring network at the site includes five groundwater monitoring wells (MW92-1, MW95-1, MW95-2A, MW95-4, MW95-6). The locations of the groundwater monitoring points are displayed in Figure 4. 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.
30. 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 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 compounds (VOCs), semi VOCs, and some other inorganic constituents have also been monitored at the site.
31. 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.

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32. 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.

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						Sampling Events
			pH	Nitrate	Chloride	Sulfate	Boron	TDS	
MW92-1	Downgradient	53	6.70	4.67	111	3802	1.29	5742	20
MW95-1	Downgradient	410	6.95	ND	52	2703	2.05	4479	20
MW95-2A	Background	150	7.38	ND	42	1031	0.113	1521	20
MW95-4	Downgradient	62	7.12	0.02	33	911	0.0245	1419	20
MW95-6	Downgradient	52	7.07	ND	79	1423	0.0386	2362	20
Basin Plan Water Quality Objectives *			6.5 – 8.5	10	100	300	1.5	700	

* There is no known groundwater aquifer directly beneath the Landfill. These water quality objectives are for the nearest groundwater basin down gradient to the site.

33. The Discharger has installed a landfill gas (LFG) control system at the 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. Currently the flair station is only used when the power plant is down.
34. 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, under contract with the Discharger, since January 1999. Since August 2002, the Los Angeles City Department of Water and Power (DPW) has operated a Micro-turbine electric generating facility, which is currently inactive, that generates-generated 1.5 megawatt power using LFG from the Landfill. Both energy facilities are located within the Landfill territory.
35. 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. Leachate and gas condensate generated at the Landfill is either discharged to the sanitary sewer system or hauled away for legal disposal.
36. The Landfill is enrolled under the State Board Order No. Order 2014-0057-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001, "Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities." (WDID No. 4 19I005013, enrolled June 25, 2015)
37. Stormwater runoff from the composting area flows on the ACC pad to two 15,000-gallon clarifiers that are designed to remove sediments, floatables, and oil. From the clarifiers the water is discharged to a series of three sedimentary basins. The locations of the basin monitoring points are displayed in Figure 5. Groundwater monitoring well MW95-6, which is monitored on a semi-annual basis and located down gradient to the composting area, has been monitoring since 2003 to determine if there is any influence from the composting

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operations to groundwater. To date, no impact to groundwater quality from the composting operations has been detected.

REGULATORY REQUIREMENTS

38. On June 13, 1994, the 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 Valley 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.
39. While the State Board and Regional Boards are the state agencies designated to protect water quality resulting from solid waste disposal activities, CalRecycle regulates all other aspects of solid waste disposal in the State. To remove regulatory overlap, conflict, and duplication between CalRecycle and the State Board/Regional Boards, the California Legislature, under the Solid Waste Disposal Regulatory Reform Act of 1993, streamlined the state's solid waste disposal regulatory process by developing one consolidated set of solid waste disposal facility regulations. The revised regulations, promulgated under 27 CCR on July 18, 1997, clarify the roles and responsibilities of CalRecycle and the State Board/Regional Boards in regulating MSW disposal sites.
40. The City of Los Angeles Department of Building and Safety is the local enforcement agency for CalRecycle in Los Angeles City where the Landfill is located.
41. The 27 CCR regulations combine prior disposal site/landfill regulations of CalRecycle and the State Board/Regional Boards that were maintained in titles 14 and 23 of the CCR. The requirements in this Order conform with the relevant regulations of 27 CCR, 40 CFR, and the Porter-Cologne Water Quality Control Act (commencing with California Water Code [CWC] section 13000).
42. Section 13267(b) of the CWC authorizes the regional boards to require a person who discharged waste or is suspected of having discharged waste to furnish technical and monitoring reports. The technical and monitoring reports required by this Order and the attached MRP (No. CI-5636) are necessary to assure compliance with these waste discharge requirements.
43. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes the policy by including requirements that ensure the Landfill will not adversely impact ground and surface water resources, thereby protecting human health and ensuring that water is safe for domestic use. In addition, this Order permits the beneficial re-use of treated wastewaters, such as leachate, gas condensate, and contaminated sub-drain water so that valuable drinking water resources may be preserved.
44. State Board has implemented regulations that require the electronic submittal of information (ESI) for Groundwater Cleanup programs (section 3890 et seq. of 23CCR and division 3 of 27

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CCR). Starting January 1, 2005, required electronic submittal and submittal of a portable data format (PDF) copy of certain reports was extended to include all State Board groundwater cleanup programs, including the Land Disposal Program. The requirements contained in this Order, conform with ESI reporting regulations.

ADMINISTRATIVE

45. Definitions of terms used in this Order shall be as set forth in 27 CCR section 20164, 14 CCR section 17381, CWC section 13050, 40 CFR part 258.2, the General Order, and other applicable state and federal regulations.
46. Revision of the Discharger's WDRs for the Landfill constitutes an existing project as defined in the California Environmental Quality Act (CEQA) Guidelines, section 15301, and is therefore exempt from the provisions of CEQA. (Cal. Code Regs., tit. 14, § 15301). There are no exceptions to the exemption which would trigger additional CEQA analysis. (Cal. Code Regs., tit. 14, § 15300.2.)
47. The Regional Board notified the Discharger, interested agencies, and all known interested persons of its intent to issue requirements for the Landfill. The Regional Board in a public meeting on April 14, 2016 heard and considered all comments pertaining to waste disposal at the Landfill.
48. Any person aggrieved by this action of the Regional Board may petition the State Board to review the action in accordance with CWC section 13320 and title 23 CCR section 2050 and following. The State Board must receive the petition by 5:00 p.m., thirty days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that the Discharger shall comply with the following requirements pertaining to the Landfill:

A. Specifications

1. The Landfill is closed. No MSW or any other wastes may be received at the Landfill for the purpose of disposal.
2. Inert soil, concrete, and asphalt materials that are used for the construction or repair of the final cover, access roads, or other facilities at the Site may be imported to the Landfill, provided that the source, volume, and usage of such imported materials are reported in the corresponding semi-annual monitoring report.
3. The green materials recycling and composting operations at the Environmental Center must meet the requirements under Section D of this Order.

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4. Feedstocks for composting shall be limited to green materials, paper materials, and agricultural materials.
5. The use of the following composting additives is allowed provided that the additives comprise no more than ~~ten~~twenty percent combined, on a total volume basis, of the total feedstocks for any given batch of compost:
 - a. Fertilizing material applied at rates that will be consumed or fixed/immobilized during active composting; and
 - b. Manure.
 - c. Anaerobic digestate (solid) derived from any material other than allowable feedstocks
6. Composting additives and amendments must be handled, stored, and processed consistent with the Site Management Plan / ROWD dated on December 16, 2015.
7. All composting feedstocks, additives, amendments, and compost (active, curing, or final product) must not cause, threaten to cause, or contribute to conditions of pollution, contamination, or nuisance. These discharges must comply with the applicable Basin Plan requirements.
8. The Discharger shall remove any unacceptable wastes that arrive at the Site in violation of the requirements in this Order and discharge such removed waste to a legal point of disposal.

B. Prohibitions

1. Discharge of waste as a result of inadequate 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 waste that the Landfill received throughout its operating life shall not:
 - a. cause the occurrence of coliform or pathogenic organisms in the groundwater basin;
 - b. cause the occurrence of objectionable tastes or odors in the groundwater basin;
 - c. cause waters pumped from a groundwater basin to foam;
 - d. cause the presence of toxic materials in the groundwater basin;
 - e. cause the pH of waters in the groundwater basin to fall below 6.5, or rise above 8.5;
 - f. cause the Regional Board's objectives for groundwater or surface waters as established in the Basin Plan to be exceeded; or

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- g. cause pollution, contamination, or nuisance, as defined in CWC section 13050, or adversely affect beneficial uses of groundwater or surface waters as established in the Basin Plan.
3. Odors, vectors, and other nuisances of waste origin that migrate beyond the limits of the Landfill are prohibited.
4. The discharge of waste to surface drainage courses or to groundwater is prohibited.
5. The Discharger shall conduct site operations such that no constituents of concern (COCs) shall exhibit a measurably significant increase over its respective concentration limit (background data set) at any well, as indicated by an approved statistical or non-statistical data analysis method (including the method retesting approach).
6. Any composting feedstock, additive, amendment, or compost (active, curing, or final product) stored, processed, or composted outside of the designated composting operation areas and not approved by the Regional Water Board, is prohibited.
7. 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 and composting operations.
8. Discharge of any of the following wastes, including storage thereof, at a composting operation under this Order is prohibited:
 - a. Animal carcasses;
 - b. Liquid wastes other than those of food origin;
 - c. Medical wastes as defined in California Health and Safety Code section 117690;
 - d. Radioactive wastes;
 - e. Septage;
 - f. Sludge, including but not limited to sewage sludge, water treatment sludge, and industrial sludge;
 - g. Wastes classified as "designated" as defined in CWC section 13173;
 - h. Wastes classified as "hazardous" as defined in title 22 CCR, section 66261.3;
 - i. Wood containing lead-based paint or wood preservatives, or ash from such wood; or
 - j. Any feedstock, additive, or amendment other than those specifically described in this Order, unless approved by the Regional Water Board.

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9. Discharges of composting feedstocks, additives, amendments, or wastes to lands not owned, leased, or otherwise controlled by the Discharger for the purposes of composting is prohibited.
10. Use of biosolids as a composting additive or amendment is prohibited.
11. Use of anaerobic digestate derived from sewage sludge as a composting additive or amendment is prohibited.

C. Requirements for Post-Closure Maintenance

1. Within 90 days of the adoption of this Order, the Discharger shall submit an updated FPCMP, compliant with 27 CCR, for the approval of the Executive Officer. Postclosure maintenance of the Landfill shall be conducted in accordance with the FPCMP.
2. The Landfill's post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units at the Landfill will not threaten water quality.
3. 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 prescriptive standards and/or performance goals of 27 CCR.
4. 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 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.
5. The Discharger shall perform an annual testing per 27 CCR section 20340(d) of any LCRS to demonstrate their operating efficiency during the postclosure maintenance period of the landfill.
6. ~~Surface drainage from the Landfill is subject to State Board Order No. 2014-0057-DWQ (general industrial stormwater permit).~~ The Regional Board may adopt a site specific NPDES permit for the discharge of stormwater runoff if the Regional Board determines that such a permit is necessary. ~~No surface water or stormwater shall leave the Landfill except as permitted by a NPDES permit issued in accordance with the federal Clean Water Act (CWA) and the CCR.~~ The Discharger shall maintain and modify, as necessary, the storm water pollution prevention plan (SWPPP) developed for the Landfill.
7. 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 27 CCR. When necessary, temporary structures shall be installed as needed to comply with this requirement.

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8. 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.
9. The migration of gases from the Landfill shall be controlled as necessary 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.
10. Gas condensate gathered from the gas monitoring and collection system at the Landfill shall not be returned to the Landfill unless it meets the requirements of this Order for on-site reuse as described in Section G below. If approved, the condensate shall be discharged to a composite-lined portion of the Landfill. 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.
11. The Discharger shall intercept and remove liquid detected in all LCRSs at the Landfill to a legal point of disposal and leachate shall not be returned to the Landfill unless it meets the requirements of this Order for on-site reuse as described in Section G below, which implements the leachate handling requirements contained in 27 CCR 40 CFR. Any leachate determined to be hazardous shall be transported by a licensed hazardous waste hauler to an approved treatment or disposal facility.
12. The Discharger shall maintain permanent survey monuments at the Landfill throughout the postclosure maintenance period. Benchmarks shall be 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. The Discharger shall conduct periodic inspections at the Landfill, at least once per month, to ensure the compliance of this Order. The inspections shall cover the final cover system, the water quality monitoring system, drainage system, landscape and irrigations systems, leachate collection and removal systems, landfill gas collection system, green material recycling and composting system and any other systems at the Site that may have an impact to water quality. Such inspections shall be documented and reported to the Regional Board in accordance with the MRP.

D. Requirements for Green Materials Recycling and Composting

1. The waste received at the Environmental Center shall be limited to discarded vegetation, manure, wood waste, and yard trimmings, and other materials approved by the Executive Officer. The average weight of such waste accepted at the Environmental Center, calculated on a monthly basis, shall not exceed ~~750~~ 1,000 tons per day.

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2. Impurities that are not compatible to the operations at the Environmental Center shall be separated, to the maximum extent feasible, before the green materials are processed. Such impurities shall be collected and legally disposed offsite.
3. The Discharger is authorized to operate a composting facility within the site property boundaries that meets the following requirements:
 - a. Composting shall be limited to the areas designated for such activities;
 - b. No wastewater or storm water shall leave the compost processing area except as permitted by ~~a NPDES permit issued in accordance with the CWA and CWC, commencing with section 13000~~these WDRs. The Discharger shall maintain and modify, as necessary, a SWPPP developed for the compost processing area;
 - c. Odors from compost processing shall not create a nuisance offsite.
4. Areas used for receiving, processing, or storing feedstocks, additives, amendments, or compost (active, curing, or final product) must be designed to limit water quality degradation. Working surfaces and containment structures must be designed, constructed, operated and maintained to:
 - a. Facilitate drainage and minimize ponding by sloping or crowning pads to reduce infiltration of liquids;
 - b. Reliably transmit free liquid present during storage, treatment, and processing of materials to a containment structure to minimize the potential for waste constituents to enter groundwater or surface water; and
 - c. Prevent conditions that could contribute to, cause, or threaten to cause a condition of contamination, pollution, or nuisance.
5. Working surfaces must be constructed to allow year round equipment access to feedstocks, additives, amendments, and compost (active, curing, or final product) without damage to the working surfaces and containment structures.
6. To prevent potential impacts to waters of the state, the Discharger must minimize the potential for piles of feedstocks, additives, amendments, or compost (active, curing, or final product) to become over-saturated and generate wastewater.
7. Areas used for receiving, processing, or storing feedstocks, additives, amendments, or compost (active, curing, or final product) must be designed, constructed, and maintained to control and manage all run-on, runoff, and precipitation which falls onto or within the boundaries of these areas, from a 25-year, 24-hour peak storm event at a minimum.
8. Areas used for receiving, processing, or storing feedstocks, additives, amendments, or compost (active, curing, or final product) must be protected from inundation by surface flows associated with a 25-year, 24-hour peak storm event at a minimum.

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9. Drainage conveyance systems must be designed, constructed, and maintained for conveyance of wastewater from the working surface in addition to direct precipitation from a 25-year, 24-hour peak storm event at a minimum. Ditches must be properly sloped to minimize ponding and kept free and clear of debris to allow for continuous flow of liquid. Ditches must be adequately protected from erosion, and must not cause, threaten to cause, or contribute to conditions resulting in contamination, pollution, or nuisance. Ditches must be inspected and cleaned out prior to the wet season every year.
10. Water used for green materials composting and site maintenance shall be limited to the amount that is necessary to maintain appropriate moisture content in green materials. 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.
11. The Discharger must submit a post-construction report to the Regional Water Board within 60 days of completing all construction activities associated with all applicable containment and monitoring structures for the composting operations. The post-construction report must contain as-built plans and specifications to document that containment and monitoring structures were properly constructed and tested.
12. The Discharger shall inspect the Environmental Center, 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, and any corrective actions that have been taken, shall be reported in the regular monitoring reports that are required under MRP 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 a records for the Landfill in accordance with 40 CFR and as required in MRP No. CI-5636. 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. 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.
4. 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

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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 MRP No. CI-5636.

5. 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.
6. Any abandoned wells or bore holes under the control of the Discharger, and situated within the Facility boundaries, must be located and properly modified or sealed to prevent mixing of any waters between adjacent water-bearing zones. Notice of the intent to decommission a well must be filed with the Los Angeles County Department of Public Health prior to decommissioning. Procedures used to decommission these wells, or to modify wells still in use, must conform to the specifications of the Los Angeles County Department of Public Health.
7. The Discharger shall report to the Regional Board any non-compliance or any incident resulting from Landfill operations that are in violation of this Order. Any such information shall be provided verbally to Regional Board staff within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission pursuant to ESI reporting requirements shall also be provided to the Regional Board Executive Officer within seven days of the time that the Discharger becomes aware of the circumstances. The written submission shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance 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 non-compliance.
8. 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.

F. Requirements for Groundwater Monitoring

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 Landfill, 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 MRP No. CI-5636. The following are five parts of the WQPS as established by the Regional Board:
 - a. WQPS may be modified for site specific purposes by the Regional Board based on more recent or complete groundwater monitoring data such as from the monitoring network required by this Order or changes in background water quality. Proposed

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changes must be in accordance with guidelines described in appropriate sections of 27 CCR.

- b. The Discharger shall test for the monitoring parameters and the constituents of concern listed in MRP No. CI-5636.
 - c. Concentration Limits shall be its background value as calculated using an appropriate statistical methodology for a given reporting period.
 - d. Monitoring points shall be those listed in MRP No. CI-5636. The points of compliance extend through the zone of saturation.
 - e. Compliance period - The compliance period for the Landfill, (i.e. the minimum period of time during which the Discharger shall conduct a water quality monitoring program) shall extend past the closure of the Landfill and through the regulatory postclosure maintenance period.
2. The Discharger shall conduct required monitoring and response programs in accordance with 27 CCR sections 20385 (A detection monitoring program per 27 CCR section 20420, an evaluation monitoring program per 27 CCR section 20425, or a corrective action program per 27 CCR section 20430, depending on where a measurably significant release of waste has been detected at the Landfill and whether corrective action is required, as determined by the Regional Board Executive Officer).
 3. The Discharger shall implement the attached MRP 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 the discharges of waste to the Landfill.
 4. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Regional Board Executive Officer, proposing modifications to MRP No. CI-5636. The Discharger shall implement any changes in the revised MRP approved by the Regional Board Executive Officer upon receipt of a signed copy of revised MRP No. CI-5636.
 5. Monitoring parameters and COCs listed in MRP No. CI-5636 are subject to appropriate statistical or non-statistical tests included in MRP No. CI-5636 sections and may be revised by the Regional Board Executive Officer as needed.
 6. All analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water. All analyses shall be conducted in accordance with the latest edition of the USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) promulgated.
 7. 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 MRP No. CI-

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5636, as directed by the Regional Board Executive Officer. MRP No. CI-5636 is subject to periodic revisions, as warranted and approved by the Regional Board Executive Officer.

8. The effectiveness of all monitoring wells, monitoring devices, and leachate and gas collection systems shall be maintained for the active life of the Landfill and during the closure and postclosure maintenance periods in accordance with acceptable industry standards. If any of the monitoring wells and/or monitoring devices are damaged, destroyed, or abandoned for any reason, the Discharger shall immediately provide substitutes acceptable to the Regional Board Executive Officer to meet the monitoring requirements of this Order.
9. The Discharger shall maintain a Monitoring Well Preventative Maintenance Program approved by the Regional Board 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 Regional Board to be approved by the Regional Board Executive Officer.
10. If a well or piezometer is found to be inoperative, the Regional Board and other interested agencies shall be so informed pursuant to ESI reporting requirements within seven days of such discovery, and this notification shall contain a time schedule for returning the well or piezometer to operating order. Changes to the existing monitoring program shall be submitted for Regional Board Executive Officer's approval at least thirty days prior to implementing the change(s).
11. For any monitoring wells or piezometers installed in the future, the Discharger shall submit technical reports for approval by the Regional Board Executive Officer prior to installation. These technical reports shall be submitted at least sixty days prior to the anticipated date of installation of the wells or piezometers. 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.
12. The Discharger shall install any additional groundwater, soil pore liquid, soil pore gas, or leachate monitoring devices necessary to comply with MRP No. CI-5636 as adopted or as revised by the Regional Board Executive Officer.

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

G. Requirements for Onsite Water Use

1. No water shall be routinely applied to refuse fill areas except for landscape irrigation, dust control, or non-emergency uses. Overflow or run-off caused by the over-application or improper management of irrigation or dust control water is prohibited.
2. All use of landscape irrigation, or dust control water shall be within the boundaries of the Landfill property. During an emergency, wastewater may be used for fire fighting on the Landfill or on undeveloped areas off and adjacent to the site.
3. Washing of Landfill equipment or vehicles shall be confined to areas where the wastewater will not percolate into the disposal areas or native soils, or enter the storm water collection system. Washing of paved Landfill roads during rainy periods shall only occur when muddy roads create a safety concern.
4. Landfill wastewater¹ can be used on-site to support the landfilling operations listed in Specification G.1 but shall not percolate into disposed wastes or native soil, or enter storm water collection systems, except as specifically permitted by this Order.
5. During periods of precipitation, when the reuse of any wastewater is not necessary for the purposes specified in this Order, the wastewater shall be stored or disposed at a legal point of disposal.
6. Wastewater from cleaning site equipment and water purged from wells intended to be used onsite for dust control, composting operations, or irrigation shall at all times be within the range of 6.5 to 8.5 pH units, and shall not exceed the following limits:

<u>Constituent</u>	<u>Concentration</u>
Total organic carbon	110 mg/L
Oil or grease	15 mg/L
USEPA Priority Pollutants	Not to exceed MCLs

7. A sampling station shall be established for each wastewater source where representative samples can be obtained. Wastewater samples shall be obtained at sampling stations prior to being mixed with sources of other water. The minimum sampling frequency for wastewaters is on a quarterly basis for water used for dust control, irrigation or other on-site land applications, except for water purged from wells where the minimum sampling frequency shall be semi-annual.

¹ Pursuant to 40 CFR 136.3(f), landfill wastewater means all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated storm water, contaminated ground water, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated storm water and contact washwater from washing truck, equipment, and railcar exteriors and surface areas which have come in direct contact with solid waste at the landfill facility.

8. Should there be a change in wastewater sampling stations, the Discharger shall submit to the Regional Board a technical report containing a complete description of each proposed wastewater sampling station. Data to support the claim that the proposed station will provide samples representative of the entire flow from that source shall be included.
9. During periods of precipitation, when the reuse of any wastewater is not necessary for the purposes specified in this Order, the wastewater shall be stored or disposed at a legal point of disposal.

H. Requirements for Reporting Scheduled Activities

1. The Discharger shall comply with all reporting requirements included in MRP No. CI-5636.
2. The Discharger shall notify the Regional Board in writing of any proposed change of ownership or responsibility for construction, operation, closure or postclosure maintenance of this waste management facility. This notification shall be given at least 90 days prior to the effective date of the change and shall include a Report of Waste Discharge and statement by the new Discharger that construction, operation, closure and postclosure maintenance will be in compliance with any existing waste discharge requirements and any revisions pending update, modification, revocation, reissuance or amendment to this Order.
3. The Discharger shall furnish, within a reasonable time, any information the Regional Board may require to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
4. If the Discharger becomes aware that the Discharger failed to submit any relevant facts in any report to the Regional Board, it shall submit such facts or information pursuant to ESI reporting requirements within seven days of its discovery of the omission.
5. The Regional Board shall be notified of any incident resulting from Landfill operations that may endanger the environment, by telephone within 24 hours, and pursuant to ESI reporting requirements within 14 days. The written notification shall fully describe the incident including what occurred, when it occurred, the duration of the incident, when correction occurred (or when correction will occur if it is a continuing incident), and the steps taken or planned to reduce, eliminate, and/or prevent recurrence. All instances of non-compliance with this Order shall also be reported to the Regional Board in the same manner as stated above, and included in the next scheduled monitoring report.
6. The Discharger shall notify the Regional Board pursuant to ESI reporting requirements within seven days if fluid is detected in a previously dry LCRS.
7. Pursuant to 27 CCR sections 21130 and 21132, the Discharger shall submit a copy of the emergency response plan, including any proposed amendments thereto, to the Regional Board within 90 days of the adoption of this Order.

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8. The Discharger shall comply with the postclosure maintenance and notification requirements contained in 27 CCR.
9. All applications, reports, or information submitted to the Regional Board Executive Officer shall be signed and certified as follows:
 - a. The applications, reports, or information shall be signed as follows:
 - i. For a corporation - by a principal executive officer of at least the level of vice-president.
 - ii. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 - iii. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
 - iv. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.
 - b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph [a] of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
 - i. The authorization is made in writing by a person described in paragraph [a] of this provision;
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - iii. The written authorization is submitted to the Regional Board Executive Officer.
 - c. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violation."

I. General Provisions

1. Where necessary to protect water quality, pursuant to 27 CCR sections 20012 (a) and (b), the Regional Board can implement CalRecycle requirements promulgated in 27 CCR.

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2. This Order does not authorize violation of any federal, state, or local laws or regulations.
3. The Discharger shall comply with all applicable provisions, requirements, and procedures contained in 27 CCR, CWC and any future amendments.
4. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). The Discharger shall be responsible for meeting all applicable requirements of the Endangered Species Acts. A discharge which is deleterious to fish, plant life, mammals, or bird life or otherwise in violation of Fish and Game Code section 5650 is not a discharge which is authorized nor in compliance with the terms and conditions of this Order. The Discharger shall obtain permits as necessary, and comply with permit conditions and all other applicable federal, state, county, and local laws and regulations.
5. The Discharger shall maintain a copy of this Order at its local offices and shall ensure that all site-operating personnel are familiar with its content and that it is available to operating personnel at all times.
6. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the CWC, any substances or parameters at this location.
7. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* (Standard Provisions, Attachment W), which are incorporated herein by reference. Because requirements applying a federal assessment monitoring program are incorporated into this Order, and federal requirements for composite liner systems have been implemented for the remaining permitted waste footprint, the Landfill is no longer subject to Regional Board Order No. 93-062 requirements.
8. The Discharger shall contact the Regional Board within 48 hours of any significant earthquake event that has impacted the Landfill. 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. A detailed post-earthquake report describing any physical damages to the containment features, groundwater monitoring

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and/or leachate control facilities, and a plan for corrective action, including implementation schedule, shall be submitted to the Regional Board within seven days.

9. The Discharger shall immediately notify the Regional Board of any flooding, fire, slope failure or other change in Landfill conditions, which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
10. The Discharger shall comply with all conditions of this Order and any additional conditions prescribed by the Regional Board in addenda thereto. Non-compliance with this Order constitutes a violation of the CWC and is grounds for:
 - a. Enforcement action, including Regional Board orders or court orders, requiring corrective action or imposing civil monetary liability;
 - b. Termination, revocation and reissuance, or modification of this Order; or
 - c. Denial of a ROWD in application for new or revised WDRs.
11. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the non-compliance.
12. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order;
 - b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
 - c. A change in any condition that requires either a temporary or permanent reduction, or elimination of the authorized discharge.
13. In accordance with CWC section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to termination or modification. All discharges of waste into the waters of the state are privileges, not rights.
14. The filing of a request by the Discharger for the modification, revocation and reissuance, or termination of this Order or notification of planned changes or anticipated non-compliance does not stay any condition of this Order.
15. 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.
16. Pursuant to CWC section 13263(e), these requirements are subject to periodic review and revision by the Regional Board.

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

J. Termination

1. Except for enforcement purposes, Regional Board Order No. R4-2004-0176, adopted on December 13, 2004, is hereby terminated.

I, Samuel Unger, 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 April 14, 2016.

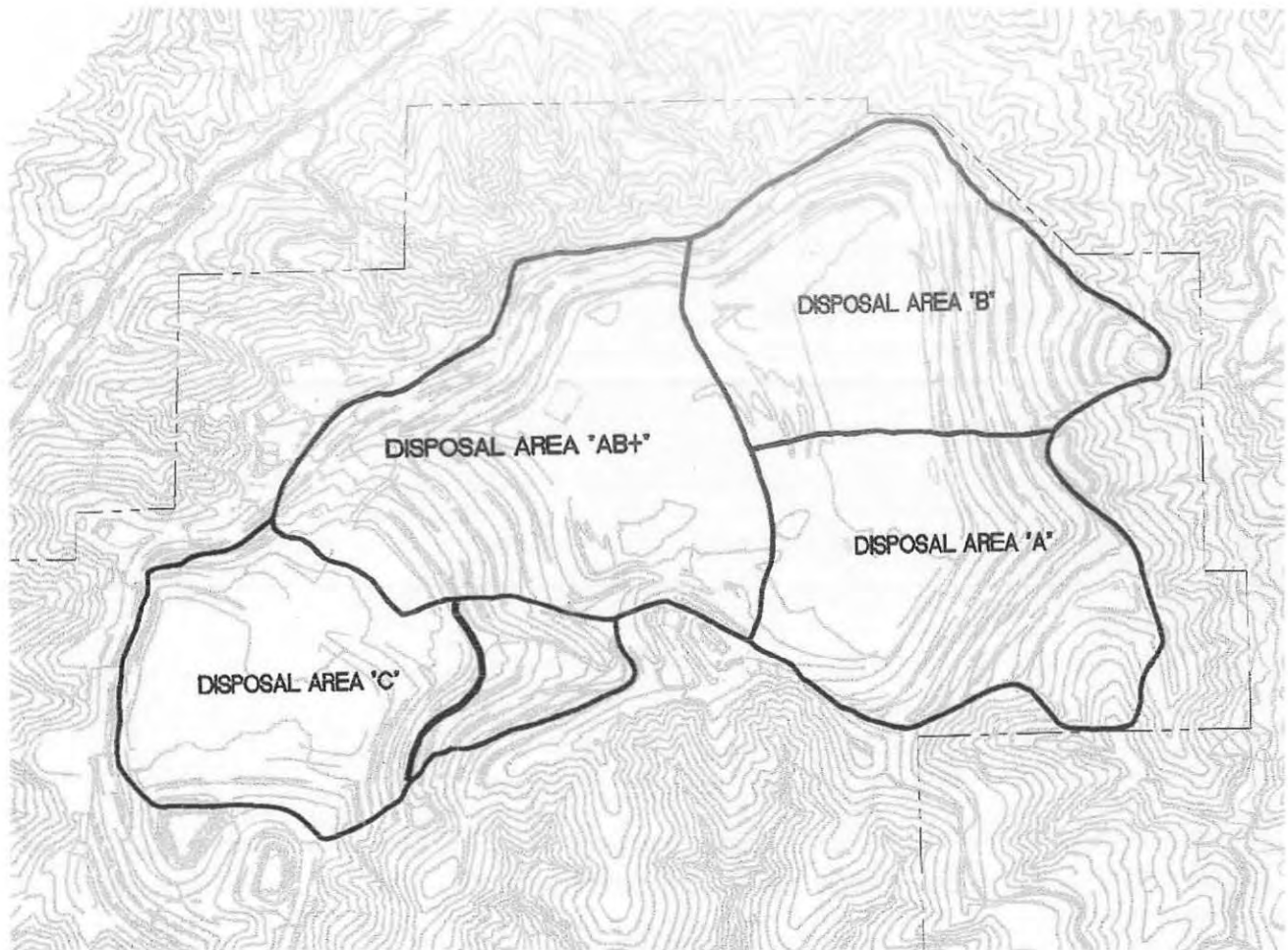
Samuel Unger, P.E.
Executive Officer

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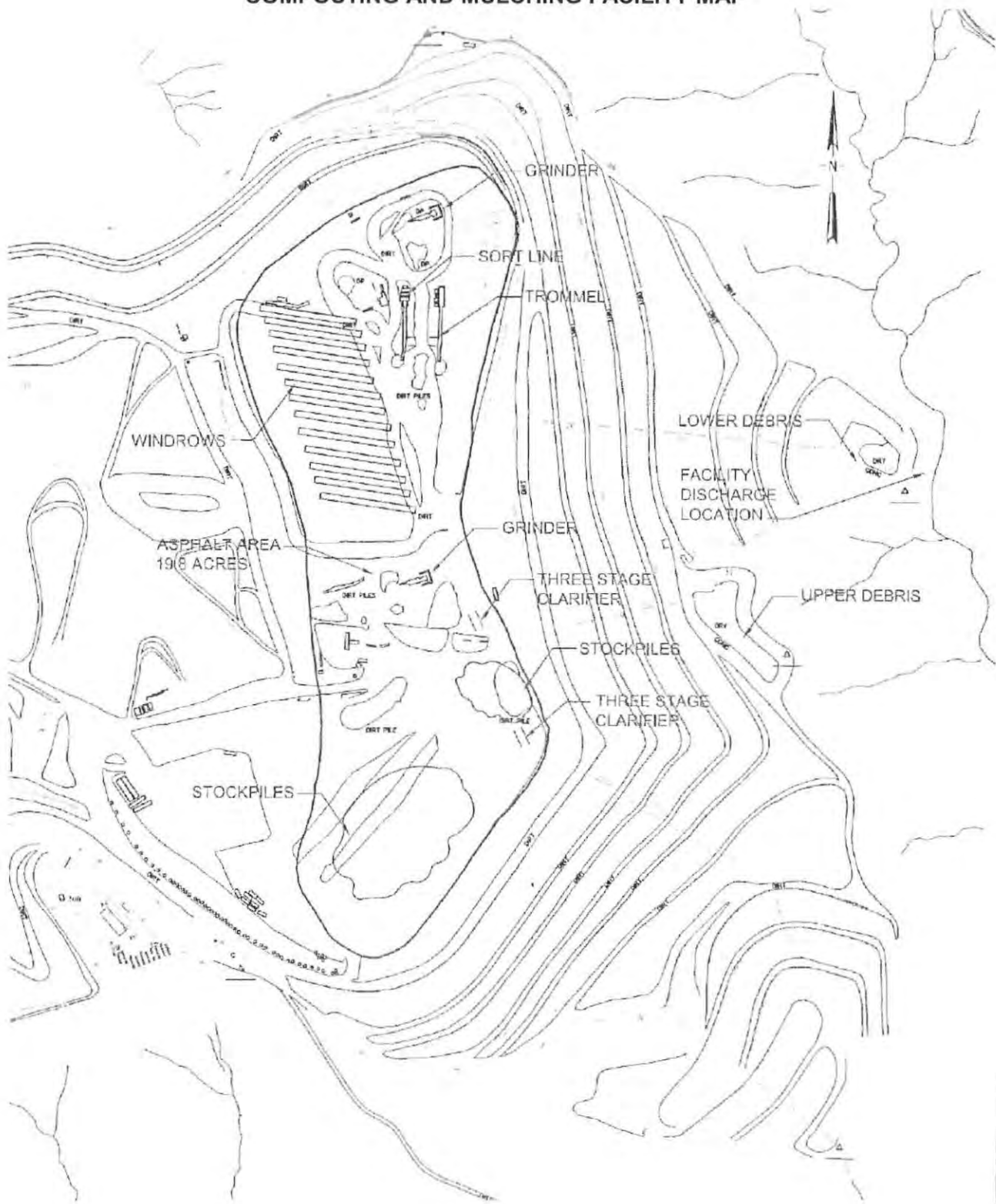


**FIGURE 2:
LOPEZ CANYON LANDFILL DISPOSAL AREA FOOTPRINTS**



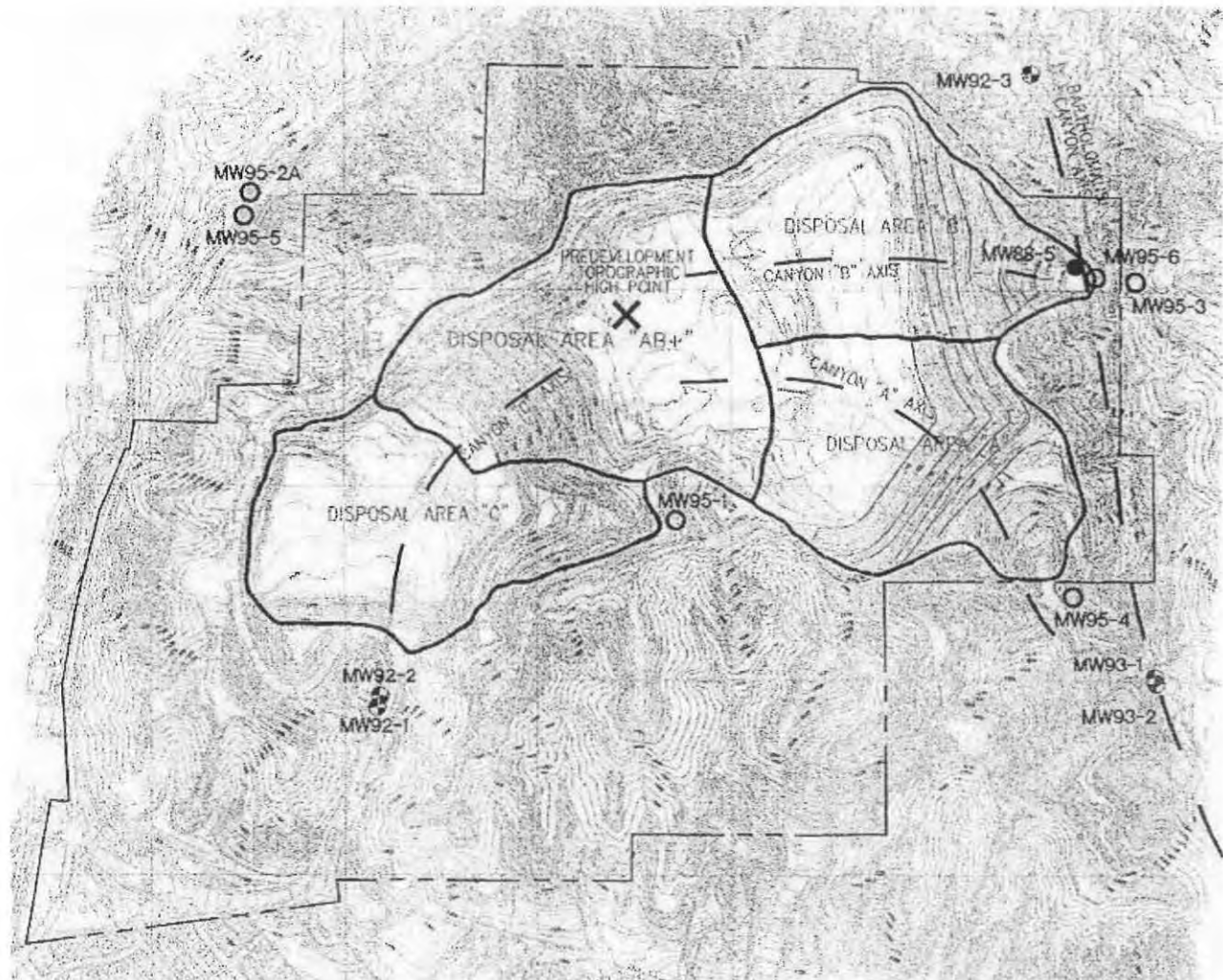
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**FIGURE 3:
LOPEZ CANYON ENVIRONMENTAL CENTER
COMPOSTING AND MULCHING FACILITY MAP**



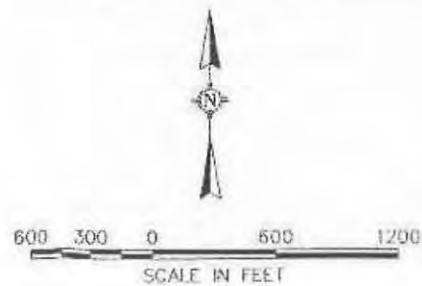
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**FIGURE 4:
GROUNDWATER COMPLIANCE WELL MAP**



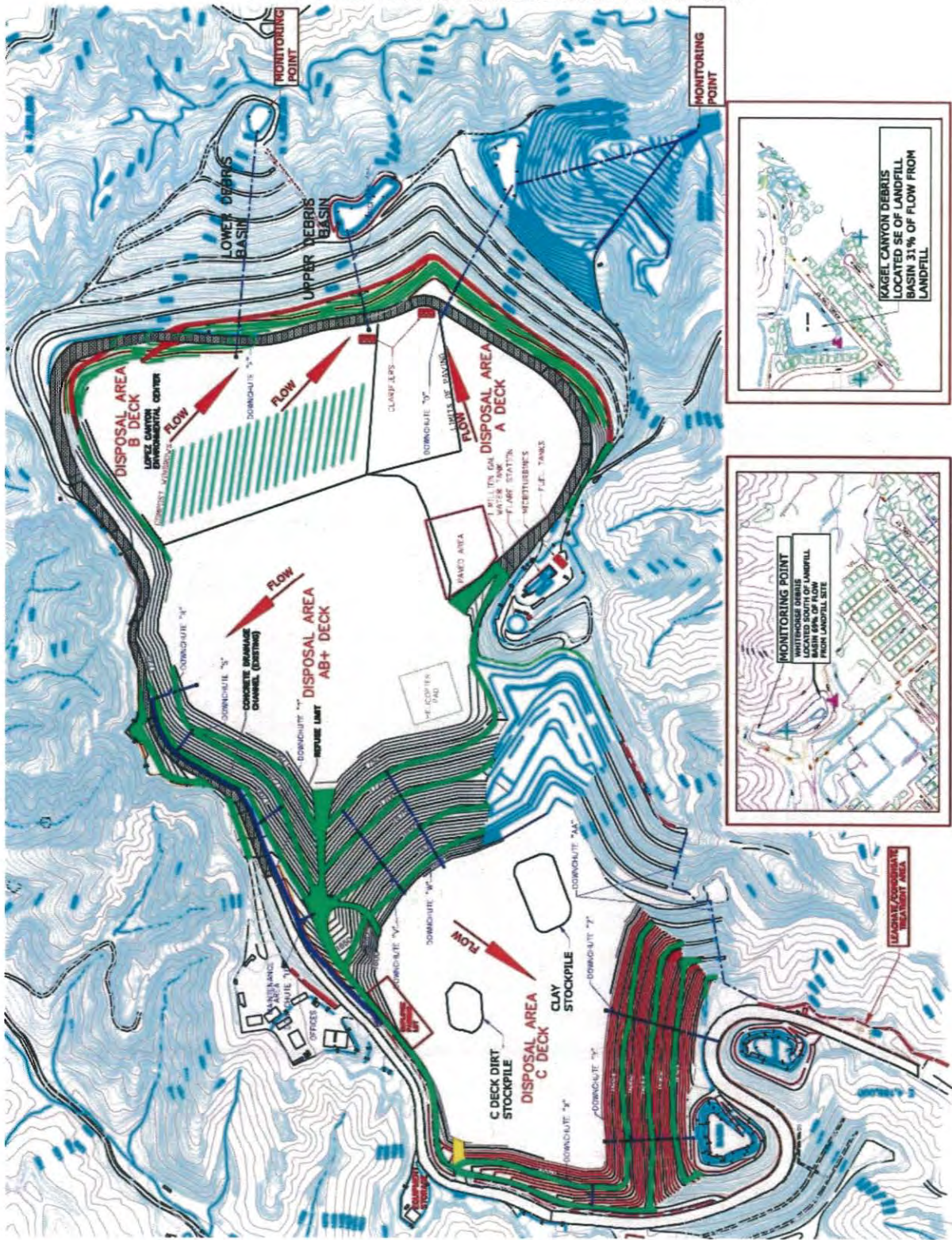
LEGEND

- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1988
- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1992/1993
- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1995
- APPROXIMATE LANDFILL BOUNDARIES (TO BE REVISED ALONG ACCESS ROAD)
- WASTE DISPOSAL BOUNDARIES
- GROUND WATER FLOW DIRECTION
- CANYON AXIS



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FIGURE 5:
STORMWATER BASIN MONITORING POINT MAP



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

MONITORING AND REPORTING PROGRAM (NO. CI-5636)

**FOR
THE CITY OF LOS ANGELES
(LOPEZ CANYON LANDFILL)**

A. GENERAL

1. This self-monitoring and reporting program (MRP) implements the requirements of title 27 of the California Code of Regulations (27 CCR) and title 40 of the Code of Federal Regulations, part 258. This MRP includes monitoring, reporting and record keeping requirements for composting operations. In addition, California Water Code (CWC) section 13267(b) authorizes the regional boards to require technical or monitoring program reports. Compliance by the City of Los Angeles (Discharger) with the terms of this MRP for the Lopez Canyon Landfill (Landfill) is required by California Regional Water Quality Control Board, Los Angeles Region (Regional Board) Order No. R4-2016-0XXX (Order) and California Water Code (CWC) section 13267(b).
2. The principal purposes of a self-monitoring program by a waste discharger are:
 - a. To document compliance with discharge requirements and prohibitions established by the Regional Board;
 - b. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge; and
 - c. To prepare water quality analyses.
3. The Discharger shall implement this MRP at the Landfill and composting operation as required in the Order, starting the first monitoring period immediately following adoption of the Order. Because the composting operations are conducted within the footprint of the Landfill, this program monitors both facilities concurrently.
4. The Discharger shall comply with the requirements of 27 CCR section 20415 for any water quality monitoring program developed to satisfy 27 CCR sections 20420, 20425, or 20430, as required in the Order and this MRP.
 - a. Groundwater monitoring shall meet the requirements of 27 CCR section 20415(b) and 40 CFR section 258.51 (a, c, and d);
 - b. Surface water monitoring shall meet the requirements of 27 CCR section 20415(c) and NPDES requirements, as required in this MRP and the State Water Resources Control Board (State Board) General NPDES Stormwater Permit for Industrial Activities (General Industrial Stormwater Permit, Order WQ 2015-0121-DWQ). In

February 24, 2016
March 29, 2016

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addition, whenever possible, the Discharger shall measure volumetric flow or, at a minimum, visually estimate the flow rate for all surface water monitoring points with flowing water (i.e. any flowing seeps or springs that develop during the post closure maintenance of the Landfill).

B. REQUIRED REPORTS AND CONTINGENCY RESPONSE

The Discharger shall submit the following reports to the State Board Geotracker database system (Global ID L10001048735) in accordance with the schedules specified.

1. Semi-Annual Monitoring Report

A written monitoring report shall be submitted semi-annually by August 15 (for the period from January 1 to June 30) and February 15 (for the period from July 1 to December 31) of each year. Any reporting or tabulation requirements less than semi-annual in length (i.e., monthly or quarterly) shall be submitted in corresponding semi-annual reports. Semi-annual reports shall include, but shall not be limited to, the following items and sequence:

- a. **Transmittal Letter:** A letter transmitting the essential points shall accompany each report. The letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a time schedule for correcting said violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. Monitoring reports and the letter transmitting the monitoring reports shall be signed and certified in accordance with section H.9 of the Order.
- b. **Summary of Non-Compliance:** The report shall contain a summary of non-compliance that discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. Significant aspects of any on-going corrective action measures conducted during the monitoring period shall also be summarized. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all exceedances of water quality protection standards.
- c. **Site Conditions:** General discussion of site conditions (geology, climate, 100-year 24-hour storm, and watershed specifics, etc.) relative to water quality monitoring.
- d. **Narrative Description:** A narrative discussion of the various monitoring activities and results for the site. Each requirement of Section C (Required Water Quality Monitoring and Inspection Program) of this MRP shall be specifically discussed.
- e. **Laboratory Results:** Laboratory results and statements demonstrating compliance with Section C (Required Water Quality Monitoring and Inspection Program) of this MRP. Results of additional water sampling and analyses performed at the Landfill, outside of the requirements of this MRP, shall be summarized and reported. If the results of such additional sampling and analyses have or will be reported under separate cover, a statement as such shall be included in the monitoring report.

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- f. **Standard Observations:** A summary and certification of completion of all standard observations for the Landfill property and composting operations in accordance with the NPDES Stormwater Permit monitoring and reporting requirements. The records of observation are to be included with the semi-annual report due February 15 of each year.
- g. **Management of Liquids:** A summary of the total volumes, on a monthly basis, of Landfill leachate, gas condensate, and any contaminated subdrain water and groundwater extracted at the site, and how these liquids are handled.
- h. **Lopez Canyon Environmental Center Operations:** A summary of green materials recycling and composting at the site, including:
 - i. A tabular list of the estimated average monthly quantities (in cubic yards and tons) of green materials and other composting feedstocks received at the site each month;
 - ii. A tabular list of the estimated average monthly quantities (in cubic yards and tons) of recycled green materials and compost products that were sent out from the site;
 - iii. A certification that all green materials recycling and composting operations at the site are in compliance with the Board's requirements;
 - iv. The Discharger shall report all unacceptable wastes inadvertently received at this site and their disposition. The following details shall be included:
 - A. The source (if known), including the hauler, of the unacceptable wastes and date received and/or discovered.
 - B. Identification of waste (if known) and the amount of waste.
 - C. The name and address of the hauler who removed the waste from this site.
 - D. The ultimate point of disposal for the waste.
 - E. The Discharger's actions to prevent recurrence of the attempted depositing of unacceptable wastes by this source or individual.
 - F. If no unacceptable wastes were received (or discovered) during the month, the report shall so state.
- i. **Map(s):** Map(s) or aerial photograph(s) showing monitoring locations, relative physical features, and groundwater contours to the greatest degree of accuracy possible.

2. Annual Summary Report

The Discharger shall submit an annual summary report to the Regional Board covering the previous monitoring year. The annual monitoring period starts January 1 and ends

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December 31. This report may be combined with a semi-annual report and shall be submitted no later than February 15 of each year. The annual summary report shall include at least the following:

- a. Discussion: Include a comprehensive discussion of the compliance record, any significant monitoring system and operational changes, a summary of corrective action results and milestones, and a review of construction projects, with water quality significance, completed or commenced in the past year or planned for the upcoming year.
- b. Graphical Presentation of Analytical Data: For each Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous eight calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given monitoring point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values.
- c. Analytical Data: All monitoring analytical data obtained during the previous year, presented in tabular form.
- d. Map(s): Map(s) showing the areas where any significant events have taken place during the previous calendar year.
- e. A drainage control system maintenance report that includes, but is not limited to, the following information:
 - i. For the previous twelve 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;
 - ii. 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
- f. An annual composting operations report that summarizes all monitoring and maintenance activities performed at the Lopez Canyon Environmental Center.
- g. An annual survey of the Landfill and composting facility to confirm that all containment structures are prepared for the pending wet season. Dischargers shall conduct an annual survey prior to the anticipated wet season, but no later than August 31 and complete any necessary construction, maintenance, or repairs by October 31.

3. Contingency Response

- a. Leachate Seep: The Discharger shall, within 24 hours of discovery, report to Regional Board staff by telephone any previously unreported seepage from the Landfill. A written report shall be filed with the Regional Board pursuant to electronic submittal of information (ESI) reporting requirements within seven days, and contain at least the following information:

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- i.* Map - A map showing the location(s) of seepage.
 - ii.* Flow rate - An estimate of the flow rate.
 - iii.* Description - A description of the nature of the discharge (e.g., all pertinent observations and analyses).
 - iv.* Location - Location of sample(s) collected for laboratory analysis, as appropriate.
 - v.* Corrective measures - approved (or proposed for consideration) by the Regional Board Executive Officer.
- b. Response to an Initial Indication of a Release: Should the initial statistical or non-statistical comparison indicate that a release is tentatively identified, the Discharger shall:
 - i.* Within 24 hours, verbally notify the designated Regional Board staff contact as to the monitoring point(s) and constituent(s) or parameter(s) involved;
 - ii.* Provide written notification pursuant to ESI reporting requirements within seven days of such determination; and
 - iii.* Do either of the following:
 - A. Carry out a discrete re-test in accordance with Section C.2.i.ii of this MRP¹. If the re-test confirms the existence of a release or the Discharger fails to perform the re-test, the Discharger shall carry out the release discovery response requirements in Section B.3.d. In any case, the Discharger shall inform the Regional Board of the re-test outcome within 24 hours of results becoming available, following up with written results submitted pursuant to ESI reporting requirements within seven days, or
 - B. Make a determination, in accordance with 27 CCR section 20420(k)(7) that a source other than the waste management unit caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in the groundwater, surface water, or the unsaturated zone.
- c. Physical Evidence of a Release: If either the Discharger or the Regional Board Executive Officer determines that there is significant physical evidence of a release (27 CCR section 20385(a)(3)), the Discharger shall conclude that a release has been discovered and shall:

¹ In case the discrete re-test is triggered by detections of common laboratory contaminants (i.e., acetone, toluene, methylene chloride, and carbon disulfide) the Discharger may postpone the discrete re-test until after the next semi-annual monitoring event. Re-testing for constituents that are common laboratory contaminants will not be required unless the same pollutants are detected in the following semi-annual monitoring event.

- i.* Within seven days notify the Regional Board of this fact pursuant to ESI reporting requirements (or acknowledge the Regional Board's determination).
 - ii.* Carry out the requirements of Section B.3.d for all potentially affected monitored media.
 - iii.* Carry out any additional investigations stipulated in writing by the Regional Board Executive Officer for the purpose of identifying the cause of the indication.
- d. Release Discovery Response: If either the Discharger or the Regional Board Executive Officer concludes that a release has been discovered, the following steps shall be carried out:
 - i.* If this conclusion is not based upon monitoring for all constituents of concern (COCs), the Discharger shall sample for all COCs at all monitoring points in the affected medium (i.e. groundwater). Within seven days of receiving the laboratory analytical results, the Discharger shall notify the Regional Board Executive Officer, pursuant to ESI reporting requirements, of the concentration of all COCs at each Monitoring Point. This notification shall include a synopsis showing, for each monitoring point, those constituents that exhibit an unusually high concentration.
 - ii.* The Discharger shall, within 90 days of discovering the release, submit an amended report of waste discharge proposing an evaluation monitoring program (EMP) that:
 - A. Meets the requirements of 27 CCR sections 20420 and 20425.
 - B. Satisfies the requirements of 40 CFR 258.55(g)(1)(ii) by installing at least one monitoring well at the facility boundary directly downgradient of the center of the release.
 - iii.* The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study (27 CCR section 20420(k)(6)) for a corrective action program necessary to meet the requirements of 27 CCR section 20430.
 - iv.* The Discharger shall immediately begin delineating the nature and extent of the release by installing and monitoring assessment wells as necessary to assure that it can meet the requirements of 27 CCR section 20425 to submit a delineation report within 90 days of when the Regional Board Executive Officer directs the Discharger to begin the EMP.
- e. Release Beyond Facility Boundary: If the Discharger or Regional Board Executive Officer concludes that a release from the Landfill has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons) as follows:

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- i.* Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release.
- ii.* Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.
- iii.* Each time the Discharger sends a notification to Affected Persons (under Sections 3.e.i. or 3.e.ii, above), it shall, within seven days of sending such notification, provide the Regional Board with both a copy pursuant to ESI reporting requirements of the notification and a current mailing list of Affected Persons.

4. Submitting of Reports

The Discharger shall submit all scheduled reports required in the Order and this MRP electronically, in accordance with 23 CCR section 3890 et. seq., or as directed by the Regional Board Executive Officer. Until directed otherwise by the Regional Board Executive Officer, all reports shall be submitted to the State Board GeoTracker data system in searchable Portable Document Format (PDF) files (Geotracker Global ID. L10001048735). In addition, all groundwater analytical data and monitoring well locations shall be submitted to GeoTracker in Electronic Deliverable Format (EDF). Documents that cannot be conveniently reviewed in electronic format, such as large maps or drawings, shall be submitted as hard copies to the Regional Board office as instructed by Regional Board staff. All hard copy reports required in this MRP shall be addressed to:

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013
ATTN: Land Disposal Unit

C. REQUIRED WATER QUALITY MONITORING AND INSPECTION PROGRAM

The Discharger shall conduct the following water quality monitoring and inspection program at the Landfill. Unless otherwise indicated, all monitoring data and inspection results shall be reported to the Regional Board as outlined in Section B (Required Reports and Contingency Response) of this MRP. In addition, Regional Board staff may conduct appropriate verification tests to confirm the accuracy of the Discharger's self-monitoring.

1. Environmental Monitoring Networks

The Discharger shall conduct analytical monitoring of groundwater, surface water, leachate, and the vadose (unsaturated) zone at the Landfill. The current environmental monitoring points for the Landfill are summarized in Table T-1 and their locations are displayed on Figure T-1. Water quality monitoring related to composting operations is included in Section C.2.n. below.

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2. Water Quality Monitoring

- a. Initial Full Appendix II Scan² – Within 30 days of the adoption of this Order, all downgradient groundwater monitoring points where a full Appendix II scan has not been performed within the last five years must be sampled and analyzed for the presence or absence of all Appendix II constituents that are not yet on the Landfill's monitoring parameter (MPar) list. A full Appendix II scan shall also be performed at any new groundwater monitoring well within thirty days of its installation. For any Appendix II constituent detected in the scan that is not yet on the Landfill's MPar list, the Discharger shall resample for that constituent, within ninety days, at all monitoring points where the constituent(s) was detected. Any Appendix II constituent that is detected and confirmed at one or more groundwater monitoring points becomes a new COC for the Landfill and shall be added to the Landfill's MPar list, pursuant to 40 CFR Part 258.55(b-d).
- b. COC List — As of the date of this MRP, the COC list for the Landfill consists of all those constituents listed in Table T-2. At any subsequent time, the COC list shall include: all Appendix II constituents detected and affirmed in the initial scan under Section C.2.a, all Appendix II constituents that have been detected and affirmed in the leachate scan required by this MRP, and any constituent added by the Regional Board Executive Officer. The Discharger shall notify Regional Board staff of any such new addition to the COC list immediately, via phone, fax, or e-mail, shall note it in the Landfill's operating record within fourteen days of the verification, and shall report the addition of constituent(s) to the COC list in the next scheduled monitoring report.
- c. MPars: Current groundwater MPars at the Landfill are listed in Table T-2, including:
 - i. Indicator Parameters: These constituents are considered capable of providing reliable indication of a release from the Landfill. The Discharger shall apply the statistical analyses described in Section C.2.h or non-statistical analysis in Section C.2.i of this MRP indicator parameter constituents to analyze all groundwater monitoring data obtained under this program for all downgradient groundwater monitoring wells.
 - ii. Supplemental Parameters: These are inorganic constituents that provide important information regarding groundwater geochemistry but may not show significant variation in groundwater in the event of a Landfill release. Monitoring data for supplemental parameters will generally be used to differentiate between any distinct groundwater bodies and will not be subjected to routine statistical analysis.
 - iii. Other COCs: These include trace metals or other pollutants that have been detected and confirmed to be in leachate from the Landfill.
- d. Background Well Testing – Even though most data analysis will be via Intra-Well comparisons, the Discharger shall continue to monitor background wells, for each MPar and COC, each time that MPar or COC is monitored at down-gradient wells. Water quality data obtained from background wells shall be processed and reported

² An Appendix II Scan refers to a laboratory test that includes the analyses of all constituents listed in 40 CFR Part 258 Appendix II.

the same way as Detection Monitoring Wells. The Discharger shall follow the requirements in Section B.3.b of this MRP in response to the detection of any volatile organic compounds (VOCs) at any background well at the site.

- e. Water Quality Protection Standard (WQPS) - In accordance with 27 CCR section 20390, the WQPS for the Landfill is established as natural background groundwater quality at the site, which is either the statistically predicted value (if the constituent exists naturally) or the laboratory detection limit (if the constituent does not naturally exist in groundwater).
- f. Development and Updating of Concentration Limits – The Discharger shall develop, and submit to the Regional Board for the Executive Officer's approval, all Concentration Limits following the procedures provided in Section C.2.h. of this MRP. The revised concentration limits shall be submitted with the next semi-annual report, following the adoption of Regional Board Order No. 4R-2016-XXXX. The Discharger shall continue to develop and update concentration limits following the procedures provided in Section C.2.h.i of this MRP. The Discharger shall review concentration limits biannually in annual reports submitted to the Regional Board. When appropriate, new concentration limits shall be proposed. For any well/Mpar pair for which an intra-well comparison analysis is not applicable, the Discharger shall use an inter-well comparison analysis to determine whether water quality protection standards are violated.
- g. Groundwater Quality Monitoring – The Discharger shall conduct the following groundwater monitoring activities at the Landfill:
 - i. Semi-annual monitoring shall be conducted at all downgradient groundwater monitoring wells listed on Table T-1 and shall be analyzed for all indicator parameters and supplemental parameters on a semi-annual basis (in February and August), and all other COCs on an annual basis (in October);
 - ii. Five-Yearly COC Scan — Every five years, starting in 2014 (when the most recent Five-Year COC was conducted), the Discharger shall analyze a sample from all downgradient groundwater monitoring wells for the detectable presence (including trace determinations) of all COCs that are not yet on the MPar list. This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d).
 - A. During each such COC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each monitoring well (sufficient to obtain a datum for each COC that is subject to the scan). Upon detecting (including trace value) a COC that is not yet on the MPar list, the Discharger shall, within thirty days, take a single resample from the indicating affected well(s) and reanalyze it only for the newly-detected constituent(s).
 - B. Any COC detected in samples collected from a groundwater monitoring well, and verified by a retest, automatically becomes part of the MPar list for the facility. This constitutes the means by which the Discharger shall meet the requirements of 40 CFR 258.55(d)(2).

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h. Statistical Data Analysis Methodology

- i.* Intra-well comparison methods shall be used for all compliance wells for all constituents that are detectable at concentrations above their respective method detection limit (MDL) in ten percent or more of the background data to date. Initially, for each given MPar at a given downgradient monitoring well (well/MPar pair), the proposed background data set shall consist of all validated data from that compliance well and parameter, from the preceding five-year period. Every two years, following the adoption of this MRP, as part of the annual monitoring summary report, the Discharger shall add the newer data to the background data set for each well/MPar pair after validating (via a method approved by the Regional Board Executive Officer) that the new data does not indicate an increase over the existing background data. At that time, the Discharger shall also retire the well/MPar's oldest two years of background data, thereby producing a data set covering the then-previous five years. The Discharger shall validate the proposed intra-well background data set as follows for each MPar at each well (initially) or, subsequently, at a new well or for a new MPar at an existing well. The Discharger shall report the validated or updated background data set, for each affected well/MPar pair, in the next scheduled monitoring report. The Discharger may use an alternative statistical method or approach for development of concentration limits, if approved by Regional Board staff.
- ii.* Per 27 CCR section 20415(e)(9)(C), if a control chart approach is used to evaluate water quality monitoring data, the specific type of control chart and its associated statistical parameter values (e.g., the upper control limit) shall be included in the supporting documentation as required by 27 CCR section 20415(e)(7). The Discharger shall use the procedure only if this supporting documentation shows the procedure to be protective of human health and the environment. Any control charting procedure must have a false positive rate of no less than 1 percent for each monitoring point charted. For example, upper control limits on X bar or R Charts used only once every six months (where no composite retest is used) must be set at no more than 2.327 standard deviations of the statistic plotted for a one-sided statistical comparison, or at no more than 2.576 standard deviations of the statistic plotted for a two-sided statistical comparison.
- iii.* In the event that an approved data analysis method provides a preliminary indication that a given MPar has a measurably significant increase at a given well, the Discharger shall conduct a verification procedure (retest) in accordance with 27 CCR section 20415(e)(8)(E). To maintain sample independence, the retest sampling shall be conducted within 90 to 100 days of the initial sampling event and can be coordinated with the corresponding semi-annual sampling event. The verification procedure shall be performed only for the constituent(s) or parameter(s) that has shown "measurably significant" (as defined by 27 CCR section 20164) evidence of a release, and shall be performed only for those monitoring points at which a release is indicated.
- iv.* For any COC or MPar that is detectable at concentrations above its respective MDL in 10% or less of the background data to date, the constituent's concentration limit shall be its MDL. A measurable exceedance of this

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concentration limit shall be determined by application of the non-statistical analysis method described in Section C.2.i of this MRP.

- v. Water Quality Monitoring Approach — Except for COC scans, the monitoring approach used for each MPar at all compliance wells (well/MPar pair) shall be controlled by whether that MPar has exhibited a measurably significant increase at that well. Therefore, the Discharger shall monitor each well/MPar pair in one of two modes, as follows, either:
 - A. Detection Mode - For an MPar that has not produced a measurably significant increase at that well, the purpose of monitoring, for that well/MPar pair, is to watch for the MPar's arrival at that well at a concentration strong enough to trigger a measurably significant indication using an appropriate statistical or nonstatistical data analysis method; or
 - B. Tracking Mode - For an MPar that has produced a measurably significant increase at a given well, the purpose of the monitoring, for that well/MPar pair, is to verify the suitability and effectiveness of the existing or proposed corrective measures by tracking changes in the MPar's concentration at that location via an evolving concentration-versus-time plot.
- vi. Detection Mode Data Analyses — The following applies to all detection mode data analyses (i.e., this section does not apply to the scans under Sections C.2.a or C.2.g.ii):
 - A. MPars Readily Detectable in Background — At any given monitoring point, the Discharger shall apply an appropriate statistical analysis for each detection mode MPar that exceeds its respective MDL in at least 10% of the applicable background data set;
 - B. MPars Not Readily Detectable in Background — For any monitoring point at which one or more MPars, in detection mode, exceed their respective MDL in less than 10% of the applicable background data set, the Discharger shall analyze the data for these MPars via the California Nonstatistical Data Analysis Method (CNSDAM) test described in Section C.2.i of this MRP.
- i. California Non-statistical Data Analysis Method (CNSDAM)
 - i. Non-Statistical Method for Detection Mode for MPars Seldom Found in Background - For any given compliance (downgradient) well, regardless of the monitoring program (DMP, EMP, AMP, or CAP), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" in Section C.2.i.i.A of this MRP (or, for each retest sample, the modified scope list of Section C.2.i.ii.B).
 - A. Scope List – Within 30 days of the effective date of this Order, the Discharger shall create a current "scope list" showing each detection mode MPar, at that well, that exceeds its MDL in less than 10% of its background data.
 - B. Two Triggers - From the scope list made under Section C.2.i.i.A, for an initial test (or, for a retest, the modified scope list under Section C.2.i.ii.B), the

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Discharger shall identify each MPar in the current sample from that well that exceeds either its respective MDL or PQL. The Discharger shall conclude that these exceeding MPars provide a preliminary indication (or, for a retest, provide a measurably significant indication) of a change in the nature or extent of the release, at that well, if either:

- (a) Two or more of the MPars on a monitoring well's scope list exceed their respective MDL; or
- (b) At least one of the MPars on a monitoring well's scope list equals or exceeds its respective PQL.

ii. Discrete Retest [27 CCR section 20415(e)(8)(E)]:

- A. In the event that the Discharger concludes (pursuant to Section C.2.i.i.B) that there is a preliminary indication, then the Discharger shall immediately notify Regional Board staff by phone, fax, or e-mail and, within 30 days of such indication, shall collect two new (re-test) samples from the indicating compliance well. To maintain sample independence, the retest sampling shall be conducted within 90 to 100 days of the initial sampling event.
 - B. For any given compliance well, the Discharger shall analyze the retest samples only for those constituents indicated in that well's original test, under Section C.2.i.i.B of this MRP, and these indicated constituents shall comprise the well's "modified scope list." As soon as the retest data are available, the Discharger shall apply the same test (under Section C.2.i.i.B, but using this modified scope list) to separately analyze each of the two suites of retest data at that compliance well.
 - C. If either (or both) of the retest samples trips either (or both) of the triggers under Section C.2.i.i.B, then the Discharger shall conclude that there is a measurably significant increase at that well for the constituent(s) indicated in the validating retest sample(s). Furthermore, thereafter, the Discharger shall monitor the indicated constituent(s) in tracking mode at that well, remove the constituent(s) from the scope list created for that well, notify the Regional Board in writing, and highlight this conclusion and these changes in the next scheduled monitoring report and in the Landfill's operating record.
- j. Groundwater Flow Direction – the Discharger shall measure the water level in each well listed in Table T-1 at least quarterly and determine the presence of horizontal and vertical gradients and groundwater flow rate and direction for the respective groundwater body. The Discharger shall determine groundwater flow direction by water level readings monitoring wells listed in Table T-1.
- k. Leachate Monitoring – The Discharger shall conduct leachate monitoring at all leachate collection sumps at the Landfill as follows:
- i. Annual Appendix II Constituent Scan - Leachate samples shall be taken at each monitoring point each year during the month of September. The samples shall be analyzed for all Appendix II Constituents in 40 CFR, part 258.

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- # TENTATIVE

3. Site Inspections

The Discharger shall inspect the Landfill and composting operations in accordance with the following schedule, and record, at a minimum, Standard Observations.

- a. During the wet season (October through April), following each storm that produces storm water runoff, or on a monthly basis if no storm produces runoff during the month.
- b. During the dry season, a minimum of one inspection shall be performed every three months.
- c. Standard Observations during a site inspection shall include at least the following:
 - i. Evidence of any surface water leaving or entering the waste management unit, estimated size of affected area, and estimated flow rate (show affected area on map).
 - ii. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
 - iii. Evidence of erosion and/or of exposed refuse.
 - iv. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.
 - v. Evidence of ponded water at any point on the waste management facility (show affected area on map).
 - vi. Compliance with the Storm Water Pollution Prevention Plan, insuring that the terms of the General NPDES Stormwater Permit are properly implemented.
 - vii. Integrity of all drainage systems.
 - viii. Inspection of the working surfaces, berms, ditches, perimeter, and erosion control best management practices related to composting operations.

D. SAMPLING AND ANALYTICAL PROCEDURES

1. Sampling and Analytical Methods

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with a sampling and analysis plan acceptable to the Regional Board Executive Officer. A State of California approved laboratory shall perform water analysis. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Regional Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from all monitoring points meets the following restrictions:

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- a. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., trace) in historical data for that medium, the SW-846 analytical method having the lowest MDL shall be selected.
- b. Trace results (results falling between the MDL and the practical quantitation limit (PQL)) for organic compounds shall be reported as such.
- c. MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included.
- d. For each MPar addressed during a given reporting period, the Discharger shall include in the monitoring report a listing of the prevailing MDL and PQL for that MPar, together with an indication as to whether the MDL, PQL, or both have changed since the prior reporting period. The Discharger shall require the analytical laboratory to report censored data (trace level and non-detect determinations). In the event that an MPar's MDL and/or PQL change, the Discharger shall highlight that change in the report's summary and the report shall include an explanation for the change that is written and signed by the owner/director of the analytical laboratory.
- e. Quality assurance and quality control (QA/QC) data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include:
 - i. The method, equipment, and analytical detection limits.
 - ii. The recovery rates, including an explanation for any recovery rate that is outside the USEPA-specified recovery rate.
 - iii. The results of equipment and method blanks.
 - iv. The results of spiked and surrogate samples.
 - v. The frequency of quality control analysis.
 - vi. The name and qualifications of the person(s) performing the analyses.
- f. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.
- g. Non-targeted chromatographic peaks shall be identified, quantified, and reported to a reasonable extent. When significant unknown peaks are encountered, second column or second method confirmation procedures shall be performed in an attempt to identify and more accurately quantify the unknown analyte(s).

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2. Records to be Maintained

Analytical records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. The period of retention shall be extended during the course of any unresolved litigation or when directed by the Regional Board Executive Officer. These records and reports are public documents and shall be made available for inspection during normal business hours at the Regional Board office. Such records shall show the following for each sample:

- a. Identity of sample and the actual monitoring point designation from which it was taken, along with the identity of the individual who obtained the sample.
- b. Date and time of sampling.
- c. Date and time that analyses were started and completed, and the name of personnel performing each analysis.
- d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
- e. Results of analyses, and MDL and PQL for each analysis.

ORDERED BY: _____
Samuel Unger, P.E.
Executive Officer

DATE: April 14, 2016

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TABLE T-1:
Landfill Monitoring Locations

Media Monitored	Monitoring Points	Location
Groundwater	MW95-2A	Upgradient
	MW92-1, MW95-1, MW95-4, MW95-6	Downgradient
Surface Water	Bottom of A Canyon, Bottom of B Canyon, and Inlet to Whitehorse Debris Basin	Outfalls
Surface Water from Green Materials	Clarifier and Upper Debris Basin	Lopez Canyon Environmental Center
Leachate	LCLC-C	Area C

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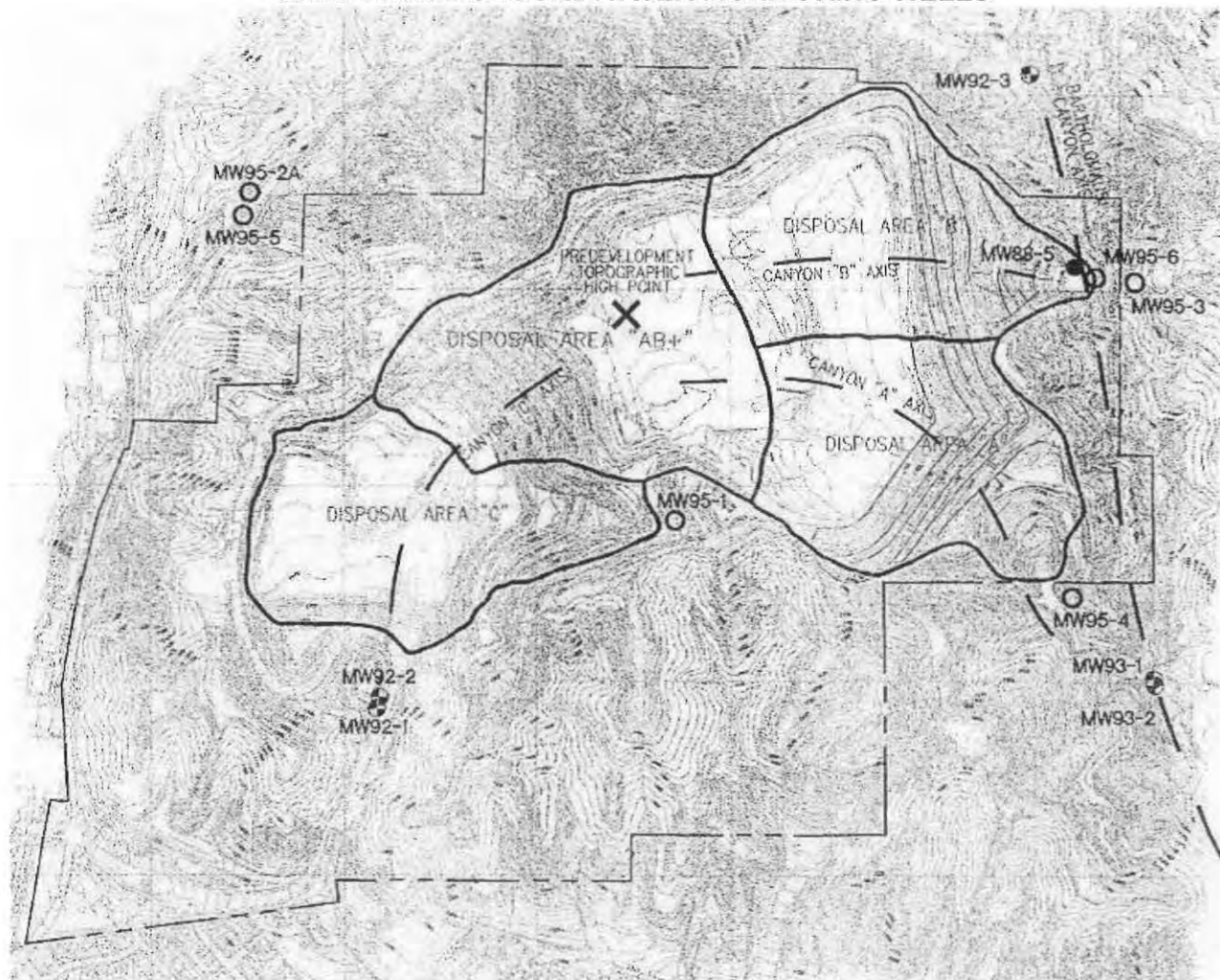
TABLE T-2:
Constituents of Concern at the Landfill

Monitoring Parameters (MPars)		Other COCs
Indicator Parameters*	Supplemental Parameters	
Inorganic Parameters: Alkalinity, total Ammonia, nitrogen Chemical oxygen demand (COD) Chloride Nitrate-N Sodium Sulfate Potassium, total Total dissolved solids (TDS) Total organic carbon (TOC) Biochemical oxygen demand (BOD) Appendix I Volatile organic compounds Semi-volatile organic compounds	Bicarbonate (as CaCO ₃) Boron, total Bromide Calcium, total Carbon dioxide, lab Fluoride Iron, total pH, field Sodium, total Sulfide Specific conductance, field Temperature, field Turbidity, field	Metals: Antimony Arsenic Barium Beryllium Cadmium Chromium, total Cobalt Copper Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc Any other pollutants detected and confirmed in Landfill leachate or added by the Regional Board Executive Officer

*Any modification to the list of Indicator Parameters evaluated through statistical analysis based on source (leachate) concentration or related information must be fully described in each corresponding semi-annual monitoring report.

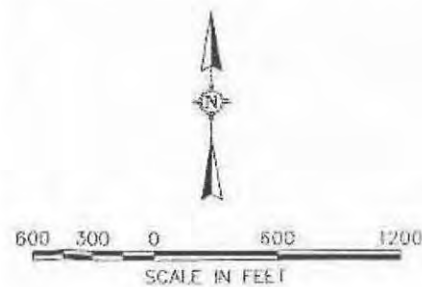
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**FIGURE T-1:
COMPLIANCE GROUNDWATER MONITORING WELLS**



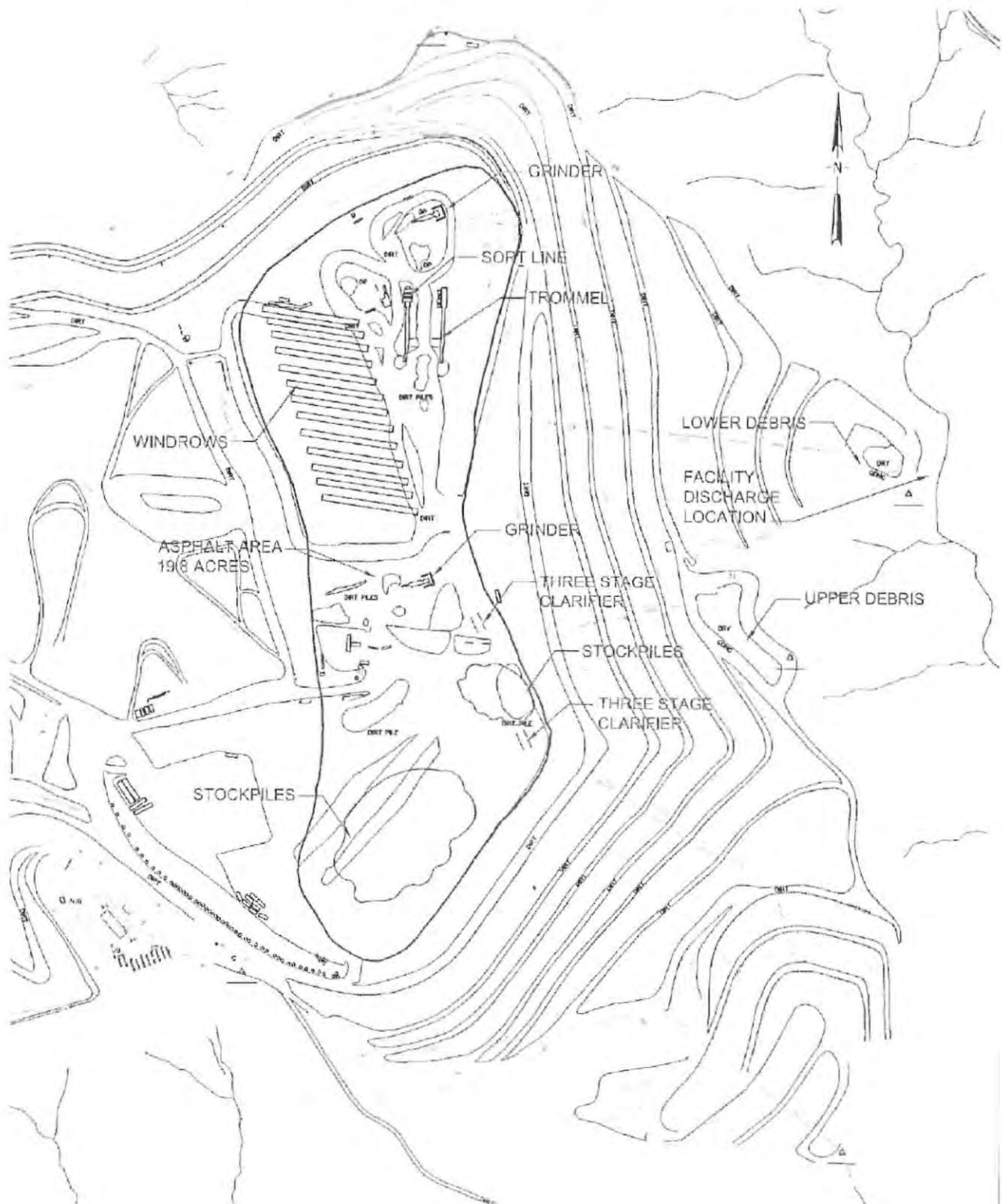
LEGEND

- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1988
- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1992/1993
- GROUND-WATER MONITORING WELLS CONSTRUCTED IN 1995
- APPROXIMATE LANDFILL BOUNDARIES (TO BE REVISED ALONG ACCESS ROAD)
- WASTE DISPOSAL BOUNDARIES
- GROUND WATER FLOW DIRECTION
- CANYON AXIS



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**FIGURE T-2:
LOPEZ CANYON ENVIRONMENTAL CENTER
COMPOSTING AND MULCHING FACILITY MAP**



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