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

ORDER NO. 94-059

WASTE DISCHARGE REQUIREMENTS
for
WASTE MANAGEMENT DISPOSAL SERVICES OF CALIFORNIA, INC.

(BRADLEY LANDFILL & RECYCLING CENTER)
(File No. 78-27)

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

1. Waste Management Disposal Services of California, Inc. a wholly-owned subsidiary of Waste Management Inc., a Delaware corporation, has filed a report of waste discharge and has applied for renewal of its waste discharge requirements for the disposal of nonhazardous solid wastes at Bradley Landfill and Recycling Center (Bradley Landfill), contained in Order No. 87-153, adopted by this Board on November 23, 1987.
2. This Board' Order No. 93-080, adopted December 6, 1993, for Bradley Landfill, contains an expiration date of June 30, 1994. The purpose of the expiration date was to allow the Regional Board to further review the monitoring program and compliance record of the landfill to determine if waste discharge requirements (WDR's) contained in Order No. 91-017, adopted by this Board on January 28, 1991, should be reissued or allowed to expire.
3. Bradley Landfill is a 209-acre Class III landfill, located at 9081 Tujunga Avenue in Sections 19 and 30 of Township 2 North-Range 14 West, Sun Valley, California.
4. The facility utilizes the fill-and-cover method of operation and has a remaining capacity of 10.67 million tons. Remaining site life, at a fill rate of 5000 tons per day, is estimated to be 6 years.
5. Bradley Landfill consists of three contiguous landfill areas within a large gravel pit from which sand and gravel were quarried by Conrock Company and Livingston-Graham. The three areas are commonly referred to as Bradley East, Bradley West, and Bradley West Extension.

- A) Bradley East (70 acres) operated as a Class III landfill from 1959 to 1980, and has no natural or

synthetic liner. Since 1980, Bradley East accepted only inert materials which consist of natural clean soils, rubble and rocks. The clean soil is used to meet the daily and/or final cover on Bradley West. The following structures are located on-site: a scale house, a permanent office and maintenance shop facility, a truck wash facility, a materials recovery facility, a wood waste recycling facility, and a landfill gas recovery facility and flare station.

The remaining fill capacity for the Bradley East area is 500,000 cubic yards and will be used strictly for inert disposal.

- B) Bradley West (71 acres) began operations as a class III landfill in 1980. This area has a one-foot thick compacted clay liner base and a six-inch compacted clay liner, and a leachate collection and recovery system. The area is filled to 98% capacity, has 60,000 cubic yards of capacity remaining, and is utilized primarily during inclement weather.
- C) Bradley West Extension (68 acres) is in the southwesterly portion of the gravel pit into which Bradley Landfill has expanded their landfill operation. This area is being developed in stages as a series of sumps, namely Sump C, Sump D, Sump 5, and Sump 6.
1. Sumps C and D were constructed in 1986, and began accepting wastes in March, 1987. Sumps C and D each have a single 12 inch compacted soil liner with a permeability of 1×10^{-6} centimeters per second or less, and leachate collection and removal systems.
 2. Sumps 5 and 6 each have a composite liner, and leachate collection and removal systems. The Sump 6 base liner, constructed in 1990, meets the Federal Subtitle D prescriptive liner requirements and the Sump 6 sidewall liner meets the performance standards for Subtitle D as an alternative liner design. The Sump 6 composite base liner consists of a 3.5 foot thick compacted soil liner base with an

hydraulic conductivity of 1×10^{-6} centimeters per second, a 2 foot thick compacted soil liner having an hydraulic conductivity of 1×10^{-7} centimeters per second, and an 80 mil high density polyethylene (HDPE) geomembrane. The Sump 5 base, built in 1993, and sidewall liners, exceed the Federal Subtitle D prescriptive liner requirements. The Sump 5 composite base liner consists of a 2.5 foot thick compacted soil liner base having an hydraulic conductivity of 1×10^{-6} centimeters per second, a 3 foot thick compacted soil liner having an hydraulic conductivity of 1×10^{-7} centimeters per second, and an 80 mil HDPE geomembrane. The Sump 5 sidewall liner consists of a minimum 5.5 foot thick compacted soil liner having an hydraulic conductivity of 1×10^{-7} centimeters per second, an 80 mil HDPE geomembrane, a layer of geotextile material, and a 2 foot thick protective soil layer. The Sump 5 area is equipped with a pan lysimeter to detect leakage through the composite lined LCRS sump.

The remaining inert fill capacity for Bradley West Extension area is 1.4 million cubic yards.

6. Currently Bradley Landfill is conducting an Evaluation Monitoring Program, in accordance with Title 23, California Code of Regulations, Chapter 15 (Chapter 15), Section 2550.9, following the detection of low-level concentrations of volatile organic compounds (VOCs) in downgradient wells. The program was initiated on June 18, 1991.

Work completed includes the submittal of an engineering feasibility study, installation of an additional downgradient well, 4916J, and the reconstruction of the gas recovery system. The ongoing, and completed, evaluation work strongly indicates the source of the low-level VOCs to be landfill gas. The probable source of the landfill gas is the older sections of the landfill which are unlined or partially lined.

The reconstruction of the gas recovery system, in an effort to control gas effects on the underlying ground water, appears to have been particularly effective. Recent monitoring of the downgradient wells 4916D, 4916G, and 4926C, show a return to non-detect levels for all VOCs, and a downward trend in the

level of VOCs in downgradient wells 4916F, 4916H, and 4916J.

7. A review of the current monitoring data and compliance inspections of Bradley Landfill indicates that intensified landfill gas collection efforts have resulted in an overall substantial decrease in VOCs in each of the downgradient wells since September, 1991. No VOCs were detected in downgradient wells (4916D, 4916G, and 4926C) during the most recent monitoring period (first quarter, 1994). These wells showed non-detectable levels of VOCs for at least the last three sampling events (i.e., 9 months). While there has been significant reductions in total VOCs as a result of the reconstruction of the gas extraction system (up to 90% in some wells), some VOCs were still detected during the most recent monitoring event (1st quarter, 1994), as shown below.

During February and March, 1994, 17 gas extraction wells were installed directly upgradient of the affected ground water wells, and were designed to further mitigate gas influence on these ground water wells. A total of 127 gas recovery wells and 10 horizontal collectors are now in operation at the landfill, most of which have been installed since 1989.

During the first quarter of 1994, three downgradient wells (shown on the attached map) exceeded their water quality protection standards as follows:

<u>Constituents</u>	<u>Concentration (µg/L)</u>				<u>Water Quality Protection Standards (µg/L)</u>
	<u>Downgradient wells</u>				
	<u>4916F</u>	<u>4916H</u>	<u>4916J</u>		
Tetrachloroethylene (PCE)	10	20	15	4	
Trichloroethylene (TCE)	4	7	6	5	

Well 4916H was installed 10 yards north of well 4916F to ensure the collection of ground water samples during low water table periods. Well 4916J is a downgradient well located approximately 50 feet off the landfill property and 400 feet downgradient of wells 4916F and 4916H. These wells are downgradient of the unlined Bradley East part of Bradley Landfill. The three wells (4916F, 4916H, and 4916J) due to their proximity to one another and the direction of ground water flow, monitor the same downgradient point of the landfill. An additional well (temporary I.D. No. 4916K-1) was installed in April, 1994, located approximately 400 feet southwest of 4916F, to monitor ground water conditions

downgradient of Bradley West Extension. Sampling of this well (4916K-1) has resulted in no detections of VOCs.

8. Livingston-Graham operates a concrete batch plant adjacent to the Bradley West Extension area, above the gravel pit. The batch plant is expected to remain in-place for at least three years. The Livingston-Graham activities are not expected to affect landfill operations in regard to water quality.
9. There are three geologic faults located on or in the vicinity of Bradley Landfill:
 - A) The Tujunga segment of the San Fernando Fault is located 2 1/2 miles north of the site, is of Holocene age, and is an active fault. The latest major activity on this fault was a magnitude 6.4 earthquake on February 9, 1971. No observable damage occurred at Bradley Landfill.
 - B) The suspected La Tuna Canyon Fault is located about one mile to the east of the site. This is an inactive fault.
 - C) The Verdugo Fault is parallel San Fernando Road, located about 100 feet inside the southwest boundary of the site, and is a potentially-active fault, of probable Pleistocene age. This fault is not included in an Alquist-Priolo Special Studies Zone to identify active faults in California.

Well 4916C is the only monitoring well located southwesterly of this fault. The water level and quality in this well are significantly different from the ground water in the other wells downgradient from the site and northeasterly of the fault, indicating that the Verdugo Fault is a barrier to ground water movement.

10. The site is not within a 100-year floodplain. In addition, Hansen Dam, located one-half mile north of the site, provides 100-year washout protection.
11. The landfill overlies highly permeable deposits of recent alluvium of the San Fernando Subarea of the San Fernando Valley Ground Water Basin, within the San Fernando Valley Hydrologic Subunit.
12. The beneficial uses of the receiving ground waters are: municipal and domestic supply, agricultural supply, industrial service, and process supply. No drinking water intakes, exist within one mile of Bradley Landfill. However, there are

potable water supply wells and irrigation water wells in the area that must be protected. Hansen spreading grounds, 3000 feet to the northwest, is a facility for recharging water to the ground water basin, and constitutes a substantial source of good quality water.

13. In order to implement a Municipal Solid Waste Landfill Permit Program that satisfies the requirements of Section 4005 of the Solid Waste Disposal Act (Subtitle D of the Resources Conservation and Recovery Act of 1976), the Regional Board will implement the Federal Subtitle D regulations to the extent that the Subtitle D regulations are more stringent than applicable Chapter 15 requirements, as authorized by Section 2510 of Chapter 15, and as adopted by State Board Resolution No. 93-62. Federal Subtitle D requirements are outlined in "Standard Provisions Implementing Subtitle D" (Standard Provisions), which is incorporated herein and made part of this Order.
14. The highest ground water levels recorded at Bradley Landfill occurred in 1983, after intensive spreading operations at the Hansen spreading grounds, and ranged from 740 feet at the northern end to 670 feet at the southern end. The lowest waste is at elevation 725 feet. "Alert levels" are established as a warning of rising ground water levels, when ground water rises to within 25 feet of the base of the landfill. These data are submitted to the Upper Los Angeles River Area Watermaster, the Los Angeles Department of Water and Power, and the Los Angeles County Department of Public Works. If ground water reaches this point, the Department of Water and Power would cease spreading operations.
15. A revised Water Quality Control Plan for the Los Angeles River Basin was adopted on June 3, 1991. The plan contains water quality objectives for surface and ground water of the San Fernando Valley Hydrologic Subarea. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.
16. A periodic waste-load-checking program has been implemented at Bradley Landfill. This program ensures that unauthorized hazardous materials are not deposited at this waste disposal facility.
17. Bradley Landfill has installed a landfill gas recovery system at the landfill site. This flare and gas plant was designed to control off-site migration of gas and to generate revenues from the sale of methane gas. Gas is collected through

extraction wells. Approximately 2.2 million cubic feet of gas per day are sold to Pacific Energy and/or Los Angeles Department of Water and Power. Gas produced in excess of demand (approximately 1 million cubic feet per day) is burned by means of the on-site flare. All probe readings, surface sweeps, ambient air and landfill gas data are sent to SCAQMD on a quarterly basis.

18. Bradley Landfill submitted a final environmental impact report (EIR) in accordance with the California Environmental Quality Act for Bradley West. The final EIR was adopted by the City of Los Angeles Board of Public Works in November 1975. The project will restore a depleted sand and gravel pit to its original elevation, providing opportunity for a wider range of potential land uses. The City of Los Angeles approved a mitigated negative declaration report for the continued use of the landfill for a period of fifteen years (effective January 1, 1993) on March 27, 1992, in accordance with the California Environmental Act (CEQA). The mitigated negative declaration determined that the continued use of the 209-acres as a landfill will not have a significant effect on the environment.

The Board has transmitted a draft of this tentative Order to the discharger and to interested agencies and persons, provided them with an opportunity to submit their written views and recommendations, and has notified them of its intent to prescribe waste discharge requirements for this discharge.

The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED that Waste Management Disposal Services of California, Inc. shall comply with the following:

A. Acceptable Materials

1. Bradley Landfill is a Class III landfill.
2. Wastes disposed of at this site shall be limited to nonhazardous solid wastes and inert wastes.
3. Nonhazardous solid waste means all putrescible and nonputrescible solid, and semi-solid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial

appliances, vegetable solid and semisolid wastes and other discarded solid or semi-solid waste; provided that such wastes do not contain wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste).

B. Unacceptable Wastes

1. No designated or hazardous wastes such as liquids, oils, waxes, tars, soaps, solvents, or readily water soluble solids such as salts, borax, lye, caustic, or acids shall be deposited at this site.
2. No materials which are of a toxic nature, such as insecticides, poisons, or radioactive materials, shall be deposited at this site.
3. No hazardous wastes (or special wastes) shall be disposed of at this site.
4. The discharge of wastes or waste byproducts (leachate, for example) to natural surface drainage courses or to ground water is prohibited.
5. No infectious materials or hospital or laboratory wastes, except those authorized for disposal to land by official agencies charged with control of plant, animal, and human disease, shall be disposed of at this site.
6. No pesticide containers shall be disposed of at this site unless they are rendered nonhazardous by triple rinsing.
7. No septic tank pumpage or chemical toilet wastes shall be disposed of at this site.
8. No water shall be used at this site except for landscape irrigation, for road surface dust control and fire fighting. Water used on disposal areas shall be applied only on completed lifts in quantities not to exceed those necessary to support plant life and shall be confined to the irrigated areas. The ponding of irrigation water is prohibited.
9. Washing of landfill equipment or vehicles shall be confined to areas where the wastewater will not percolate into the landfill or enter the storm water collection

system, unless specifically permitted by waste discharge requirements.

10. Except for unadulterated tap water, any waters used for landscape irrigation, dust control or other nonemergency uses shall be subject to waste discharge requirements.
11. The spray disposal of any wastewater will not be permitted at this site without waste discharge requirements.
12. No polluted surface waters shall leave this site except as permitted by a National Pollutant Discharge Elimination System (NPDES) permit issued in accordance with the Federal Clean Water Act and the California Water Code.
13. The existing gas monitoring system and any proposed gas collection system and/or expansion of the systems at this waste management unit shall be designed so that gas condensate is not returned to the waste management unit.

C. Ground Water Protection Standards

1. In accordance with Section 2552 of Chapter 15, the following water quality protection standards are established for this waste management facility:

<u>Parameter</u>	<u>Units</u>	<u>Maximum Value</u>
Total dissolved solids	mg/L	800
Sulfate	mg/L	300
Chloride	mg/L	100
Boron	mg/L	1.5
Total organic halogens	mg/L	0.5
Carbon tetrachloride	µg/L	0.5
Tetrachloroethylene (PCE)	µg/L	5.0
Trichloroethylene (TCE)	µg/L	5.0
Vinyl chloride	µg/L	0.5

2. Water quality protection standards may be modified by the Board based on more recent or complete ground water monitoring data, changes in background water quality, or for any other valid reason.
3. The compliance point(s) where the water quality protection standards shall apply shall be between the

property line of the facility and the downgradient edge of the waste management area. (All three portions of the site: Bradley East, Bradley West and Bradley West Extension; together comprise the waste management facility). At least three monitoring wells shall be in service at all times, downgradient of the waste management area, which meet this requirement.

4. Bradley Landfill shall comply with "Standard Provisions for implementing Subtitle D" for a detection monitoring program: in determining if a statistically significant increase is observed for any Constituent of Concern (COC); in the establishment of an evaluation monitoring program; and in the institution of a corrective action monitoring program.
5. The compliance period for which the water quality protection standards are applicable shall be the entire active life of the site, and during the closure and post-closure maintenance periods.

D. General Requirements for Disposal of Wastes

1. There shall be no damage to the community by odors or unsightliness resulting from unreasonable practices in the disposal of wastes at this site, such that it would create a nuisance as defined in Section 13050(m) of the California Water Code.
2. Neither the disposal nor handling of wastes at this site shall create pollution (as defined in Section 13050(1) of the California Water Code).
3. The discharger shall remove and relocate to a legal point of disposal any wastes which are discharged at this site in violation of these requirements. The Board shall be informed within 7 days in writing when relocation of wastes is necessary. The source and final disposition (and location) of the wastes shall also be reported.
4. Wastes deposited at this site shall be confined thereto, and shall not be permitted to blow off the site or to enter downstream drainage ditches or watercourses.
5. Adequate measures shall be taken to prevent nuisance from fly breeding, rodent harborage, and other vectors.

6. The migration of gases from the disposal site shall be controlled as necessary to prevent water pollution or nuisance.
7. Any abandoned water wells under the control of the site owner or operator, and situated within the influence of the site, must be located and properly modified or sealed to prevent mixing of any water between adjacent water-bearing zones. A notice of intent to decommission a water well must be filed with the appropriate regulatory agencies prior to decommissioning. Procedures used to decommission these wells, or to modify wells still in use, must conform to the specifications of the local health department or other applicable agencies.
8. In any area within the disposal site where seepage water is observed, provisions shall be made, and/or facilities shall be provided, to ensure that seep water will not come in contact with decomposable refuse in this waste management unit. The location of all springs and seeps found during, prior to, or after placement of waste material, shall be reported to the Board.
9. Bradley Landfill shall have containment structures which are capable of preventing degradation of waters of the state as a result of waste discharges to the landfill.
10. Construction standards for containment structures shall comply with Section 7 of this Board's Order No. 93-062, transmitted to Bradley Landfill on October 5, 1993.
11. In the event minor changes in construction procedures are requested by the discharger, the Executive Officer may approve those changes unless they are less stringent than Chapter 15.
12. Any leachate collection and removal systems (LCRS) installed at this site shall comply with Chapter 15, Section 2543 and Section 7 of Order No. 93-062. An adequate supply of replacement parts for any LCRS shall be maintained so that in case of failure of any part of the systems, no adverse water quality effects will result.
13. All leachate from this waste management unit shall be intercepted, pumped out when detected, and properly disposed of.

14. All wastes shall be adequately covered at the end of the operating day.
15. Drainage controls, structures, and facilities shall be designed to divert any precipitation or tributary runoff and prevent ponding and percolation of water at the site in compliance with Section 2546 of Chapter 15.
16. The waste management unit shall be graded and maintained to promote proper runoff of precipitation and to prevent ponding of water.
17. Erosion or washout of deposited materials by surface flow shall be prevented.
18. The site shall be designed to withstand the maximum probable earthquake without damage to the facilities or structures which control leachate, surface drainage, gas collection, or erosion control systems.
19. Regional Board staff shall be allowed entry to the landfill, or where records are kept regarding the landfill, at any reasonable time. Staff shall be permitted to inspect any area of the landfill and any monitoring equipment used to demonstrate compliance with this Order. Staff shall be permitted to copy any records, photograph any area, obtain samples, and/or monitor to assure compliance with this Order, or as authorized by applicable laws or regulations.

E. Water Quality Monitoring

1. Bradley Landfill shall furnish, under penalty of perjury, technical monitoring reports. Monitoring reports shall be submitted in accordance with specifications contained in a Monitoring and Reporting Program prepared by the Executive Officer. This Monitoring and Reporting Program is subject to periodic revisions as warranted.
2. The effectiveness of all monitoring wells, monitoring devices, and leachate and gas collection systems shall be maintained for the active life of this site. If any of these wells and/or monitoring devices, etc., are damaged, destroyed or abandoned for any reason, the discharger shall provide a substitute to meet the monitoring requirements of this Order. For the purpose of this requirement, "active life" shall mean the entire period

during which waste material will be deposited at the site, plus the closure and post-closure maintenance periods.

3. Bradley Landfill has submitted detailed plans and equipment specifications for compliance with the ground water monitoring requirements of Article 5 of Chapter 15, as referenced in their "Construction And Testing of Monitoring Wells, Bradley Landfill, Sun Valley District, Los Angeles, California, for the Valley Reclamation Company" dated December 2, 1986, and January 31, 1992. These reports were accompanied by:
 - a. A map showing the locations of proposed monitoring facilities; and
 - b. Drawings and data showing construction details of proposed monitoring facilities. These data included:
 - casing and test hole diameter;
 - casing materials (PVC, stainless steel, etc.);
 - depth of each test hole;
 - size and position of perforations;
 - method of joining sections of casing;
 - nature of filter material;
 - depth and composition of seals;
 - method and length of time of development;

The monitoring facilities described in this report have been installed and are currently in operation. For any new or replacement monitoring wells or piezometers installed in the future, the discharger shall submit a similar technical report, to be approved by the Executive Officer, prior to installation. This technical report shall also provide for the installation of any new monitoring wells required by the Monitoring and Reporting Program.

4. Bradley Landfill shall ensure that all of the monitoring wells and/or piezometers are in proper operating order at all times. Bradley Landfill shall maintain a Monitoring Well Preventative Maintenance Program approved by the Executive Officer. Elements of the Program should include at the least, periodic visual inspections of the well integrity, pump removal and inspection, etc., plus appropriate inspection frequencies. If a well or piezometer is found to be inoperative, the Regional Board

and other interested agencies shall be so informed in writing within seven days after such discovery. When the Board is so informed, the notification shall contain a time schedule for returning the well or piezometer to operating order. The initial Monitoring Well Preventative Maintenance Program will be due to the Board within 60 days after the adoption of this Order. Changes to the Program should be submitted for Executive Officer approval at least 30 days prior to implementing the change(s).

5. Bradley Landfill shall provide for the proper handling and disposal of water purged from the wells during sampling. Water pumped from the wells shall not be returned to that (or any other) well unless appropriate waste discharge requirements have been prescribed, nor shall it be used for dust control or irrigation without waste discharge requirements.

F. General Provisions

1. The periodic waste-load-checking program shall continue to be implemented to prevent the disposal of hazardous wastes, designated wastes, or other unacceptable wastes. Any updates in this proposal shall be submitted for Executive Officer approval.
2. Bradley Landfill shall continue to provide for the operation of a gas migration control and recovery system which will prevent landfill gas from degrading the ground water in the vicinity of the landfill.
3. Interim cover is daily cover and intermediate cover, as defined by the California Waste Management Board. Interim cover placed over wastes discharged to this landfill shall be designed and constructed to minimize percolation of precipitation through wastes and contact with material deposited. To this end, ponding of liquids over deposited wastes is prohibited.
4. The discharger shall comply with all applicable provisions, requirements, and procedures contained in Standard Provisions and any amendments, to the extent that the Standard Provisions are more stringent than applicable Chapter 15 requirements, as authorized by Section 2510 of Chapter 15, and State Board Resolution 93-62.

5. This site shall have containment structures which are capable of preventing degradation of waters of the state as a result of additional wastes (or their byproducts such as leachate or landfill gas) discharged to this landfill.
6. Bradley Landfill shall comply with notification procedures contained in Section 13271 of the California Water Code in regard to the discharge of hazardous substances.
7. With the exception of existing wastes, no non-hazardous solid waste shall be placed below an elevation that is at least 5 feet above the anticipated, high ground water elevation plus capillary rise.
8. Bradley Landfill shall maintain an Operation Plan, approved by the Executive Officer, describing the landfill operation which shall include:
 - a. A description of current or proposed treatment, storage, and disposal methods;
 - b. Contingency plans for the failure or breakdown of waste handling facilities which could have any potential water quality effects, including notice of any such failure or any detection of waste or leachate in monitoring facilities, to the Regional Board, appropriate local governments, and water users downgradient of the landfill;
 - c. A description of inspection and maintenance programs which will be undertaken regularly during disposal operations, the closure, and the post-closure maintenance period of facilities or equipment which could have any potential water quality effects.
9. Bradley Landfill shall submit detailed preliminary and as-built plans, specifications, and descriptions for all containment structures, leachate collection and removal system components, leak detection system components, precipitation and drainage control facilities, gas migration control and recovery systems, and interim covers which will be installed or used at the site. Bradley Landfill shall submit location data and a description of ancillary facilities including roads, waste handling areas, buildings, and equipment cleaning

facilities. These plans, specifications, etc., shall be updated as the site is expanded and completed. Preliminary plans and specifications shall be submitted at least 60 days prior to construction, and as-built plans and specifications shall be submitted within 30 days after completion of construction. If the preliminary plans and specifications, and as-built plans, are virtually identical, only change sheets need be submitted in lieu of complete as-built plans.

10. Bench marks shall be established and maintained at the site in sufficient number to enable reference to key elevations and to permit control of critical grading and compaction operations.
11. Surveyed boundaries including elevations of the permitted disposal area shall be determined and permanent monuments shall be installed. Bradley Landfill shall submit a scaled drawing of the site showing the surveyed points, monument locations, structure locations, and any other significant features, signed by a licensed surveyor, within 60 days of adoption of this Order.
12. Bradley Landfill shall notify the Regional Board of changes in information submitted in the report of waste discharge and supplementary information, including any material change in the types, quantities, or concentrations of wastes discharged; or site operations and features. Bradley Landfill shall notify the Regional Board at least 120 days before any material change is made.
13. Bradley Landfill shall notify the Regional Board in writing of any proposed change of ownership or responsibility for construction, operation, closure, or post-closure maintenance of this facility. This notification shall be given prior to the effective date of the change and shall include a statement by the new discharger that construction, operation, closure, and post-closure maintenance will be in compliance with any existing waste discharge requirements and any revisions thereof.
14. The Regional Board shall be notified in writing within seven days if fluid is detected in a previously dry leachate detection system, a leachate collection and removal system, or if a progressive increase in the

liquid volume is detected in a leachate collection and removal system.

15. The Regional Board shall be notified of any incident resulting from site operations that may endanger health or the environment by telephone within 24 hours and in writing within seven 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 prevent recurrence. All instances of noncompliance with this Order shall also be reported to the Board in the same manner as stated above for endangerment incidents.
16. Bradley Landfill shall submit final Closure and Post Closure Maintenance Plans to the Board at least 240 days prior to closure (unless this requirement is less stringent than laws or regulations adopted regarding Closure and Post Closure Plans adopted for other regulatory agencies).
17. The owner or operator of this facility shall notify the Regional Board in writing at least 180 days prior to the beginning of final closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved closure plan and that the plan provides for site closure in compliance with all applicable federal and state regulations. In the event closure and post-closure maintenance plans have not been submitted for this waste management area, they shall accompany this notice.
18. The owner or operator of this facility shall notify the Regional Board within 30 days after the completion of final closure activities. Bradley Landfill shall certify under penalty of perjury that all closure activities were performed in accordance with the most recently approved closure plan and in accordance with all applicable regulations. Bradley Landfill shall certify that all closed waste management units shall be maintained in accordance with an approved post-closure maintenance plan.
19. All State, County and City 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 this waste disposal site.

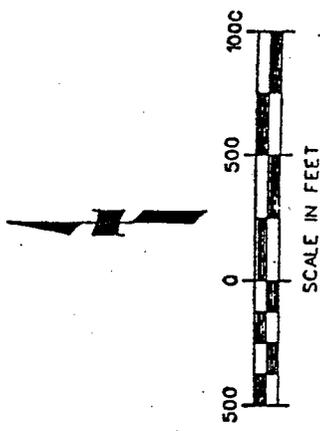
20. Bradley Landfill shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.
21. This Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge, and from gases and leachate that may be caused by infiltration of precipitation or drainage waters into the waste disposal areas, or by infiltration of water applied to this property during subsequent use of the land for other purposes.
22. These requirements do not exempt the operator of this waste management facility from compliance with any other law which may be applicable. The requirements are not a permit; they do not legalize this waste management facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes.
23. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the operator from his liabilities under federal, state, or local laws.
24. The operators must comply with all of the terms, requirements and conditions of this Order. Any violation of this Order constitutes a violation of the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance, or a combination thereof.
25. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized waste discharge.

26. The filing of a request by the operators for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any condition, provision, or requirement of this Order.
27. This Order does not convey any property rights of any sort, or any exclusive privilege.
28. The operators shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The operator shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
29. The discharger shall comply with all applicable provisions, requirements, and procedures contained in Standard Provisions and any amendments, to the extent that the Standard Provisions are more stringent than applicable Chapter 15 requirements, as authorized by Section 2510 of Chapter 15, and State Board Resolution 93-62.
30. This Board's Order No. 87-153, adopted November 25, 1987, revised Order No. 91-017, dated January 28, 1991, and amended Order No. 93-80, dated December 6, 1993, are hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on June 13, 1994.



ROBERT P. GHIRELLI, D.Env.
Executive Officer

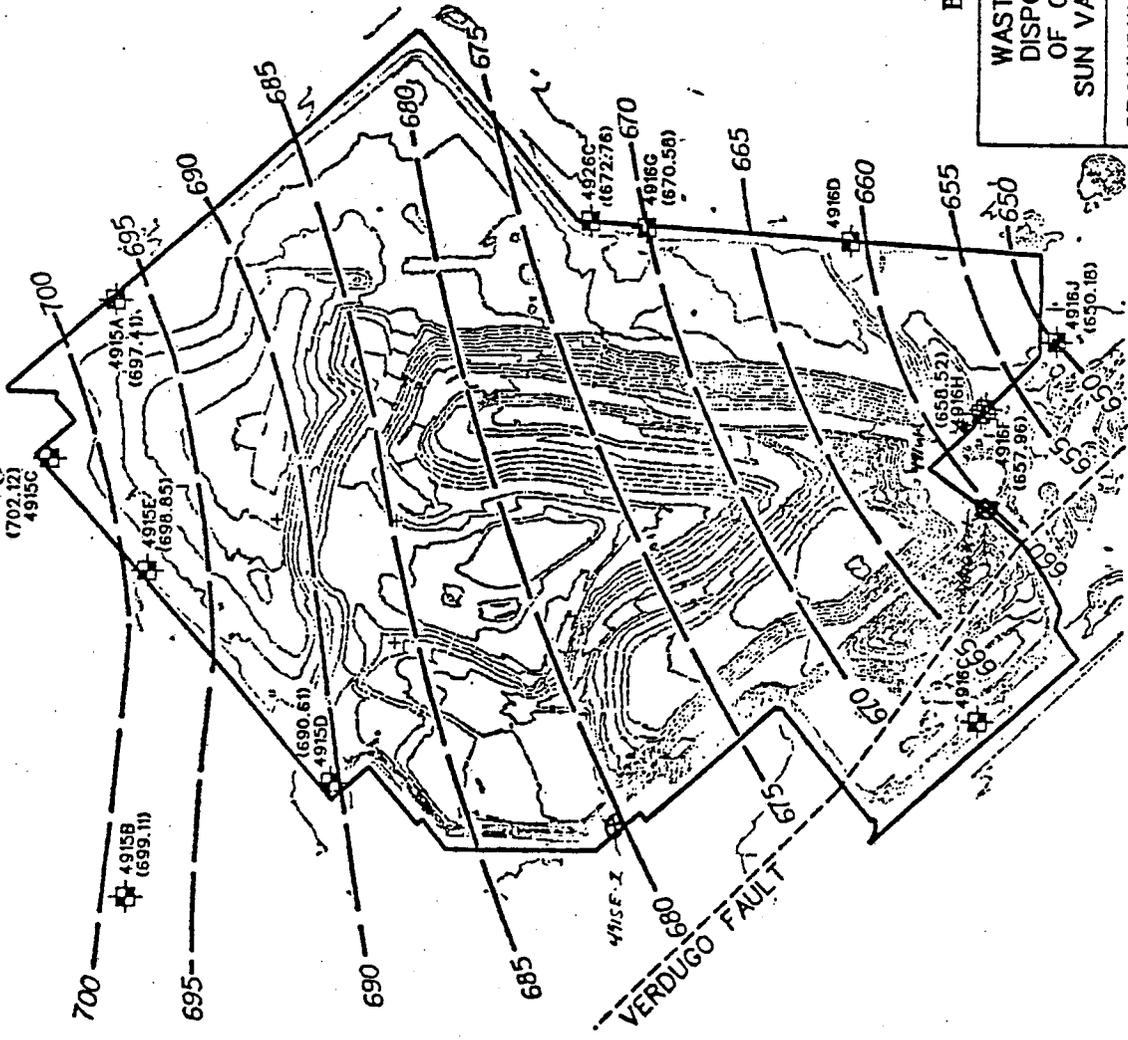


LEGEND

- 4915B
 GROUNDWATER MONITORING WELL LOCATION
- PROPERTY BOUNDARY
- GROUNDWATER CONTOURS FT./MSL

NOTES

1. TOPOGRAPHY COMPILED BY PHOTOCGRAMMETRIC METHOD BY AERIAL PHOTOGRAPHY DATED JUNE 21, 1994.
2. WELL 4914G (NOT SHOWN) IS LOCATED APPROXIMATELY 2500 FEET NORTH AND 1000 FEET EAST OF WELL 4915B



BRADLEY LANDFILL AND RECYCLING CENTER

WASTE MANAGEMENT
DISPOSAL SERVICES
OF CALIFORNIA INC.
SUN VALLEY CALIFORNIA



PROJECT NUMBER	DATE 4/27/94
RUST DWG NUMBER 5218	FILE NUMBER br5218x1.dgn
CLIENT DWG NUMBER	SHEET NUMBER 1 OF 1
GROUNDWATER CONTOUR MAP 2/25/94	

The drawings, specifications and other documents prepared by the Engineer for this project are instruments of the Engineer's service for use solely with respect to this project and shall not be used for any other purpose without the prior written consent of the Engineer. The Engineer shall be deemed to have approved the documents and shall retain all common law, statutory and other reserved rights, including the copyright.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6434
FOR

WASTE MANAGEMENT DISPOSAL SERVICES OF CALIFORNIA, INC.

BRADLEY LANDFILL and RECYCLING CENTER
(File No. 78-27)

I. GENERAL REPORTING REQUIREMENTS

- A. The discharger shall implement this Monitoring and Reporting Program beginning 60 days after the adoption of Order No. 94-059. Monitoring reports shall be submitted to the Regional Board monthly, due 45 days from the last day of the month of the monitoring period. Subsequent to receipt of any reports required by Water Quality Monitoring item E-1 and E-3 of Order No. 94-059, this Monitoring and Reporting Program shall be revised accordingly.
- B. The discharger shall submit all monitoring data in hard copy form and also on computer diskette (5-1/4 inch, 360 or 1200 kilobytes, or 3-1/2 inch, 1.44 or 2.01 megabyte). The monitoring data submitted on diskette should be in ASCII format, and presented in a cumulative, updated form with each submittal. Monitoring data submitted in hard copy form should be in discrete, noncumulative form.
- C. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services Environmental Laboratory Accreditation Program, or approved by the Executive Officer. Laboratory analyses must follow methods approved by the United States Environmental Protection Agency, and the laboratory must meet EPA Quality Assurance/Quality Control criteria.
- D. For any analyses performed for which no procedures are specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed, and the method or procedure used, must be specified in the report.
- E. The discharger may submit additional data to the Regional Board not required by this program in order to simplify reporting to other regulatory agencies.
- F. Quarterly monitoring shall be performed during the months of February, May, August, and November. Annual monitoring shall be performed during the month of August. In the event monitoring is not performed as above because of unforeseen

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circumstances, substitute monitoring shall be performed as soon as possible after these times, and the reason for the delay shall also be given.

- G. This Monitoring and Reporting Program includes the attached "General Monitoring and Reporting Provisions". If there is any conflict between provisions stated herein and the "General Monitoring and Reporting Provisions", these provisions stated herein will prevail.
- H. Where the units for a parameter are listed as $\mu\text{g/L}$ (ppb), suitable analytical techniques shall be used to achieve this precision. All method detection limits and practical quantitation limits shall be below the current Maximum Contaminant Levels (MCLs) promulgated by the California Department of Health Services, or the minimum limit of detection specified in EPA Methods or Appendix A, 40 CFR 136, if the MCL is not achievable.
- I. Analytical data reported as "less than ..." shall be reported as less than a numeric value, or below the limit of detection for that particular analytical method (also give the limit of detection).
- J. All analytical samples obtained for this Program shall be grab samples.
- K. If the discharger performs analyses for any parameter more frequently than required by this program using approved analytical methods, the results of those analyses shall be included in the monitoring report.
- L. The waste-load-checking program required by Provision F.1 of Order No. 94-059 shall be reported in each monitoring report. In the event that hazardous wastes or other unacceptable materials are detected, the type, source, and disposition of those wastes shall also be reported.
- M. The discharger shall retain records of all monitoring information, including all calibration and maintenance records regarding monitoring instrumentation, and copies of all data submitted to regulatory agencies for a period of at least five years. This period may be extended by request of the Regional Board at any time, and shall be extended during the course of any unresolved litigation regarding all or any part of the entire waste management facility.

- N. Records of monitoring information shall include:
1. The date, exact place, procedure, and time of sampling or measurement;
 2. The individual(s) who performed the sampling or measurement;
 3. The date(s) analyses were performed on the samples;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of the analyses or measurements.
- O. The discharger shall comply with the "Standard Provisions Implementing Subtitle D" (Standard Provisions) in determining and reporting if a statistically significant increase is observed for any Constituent of Concern (COC).
- P. For any monitored waste parameter which is listed as such by the EPA or by the State of California, the discharger shall compare such data to the most stringent allowable concentrations under all existing Federal and State regulations. (If such waste constituents are not considered to occur naturally, the absolute background concentrations for these constituents is zero. The ambient background value for these constituents may be established to be greater than zero in the event that the Regional Board recognizes contamination from upgradient sources.)
- Q. The discharger shall comply with the Standard Provisions in establishing an evaluation monitoring program and a corrective action program, should a statistically significant increase be observed for any COC.

II. WASTE DISPOSAL REPORTING REQUIREMENTS

- A. The first report to the Regional Board shall include a map of the site, and shall indicate the area(s) where disposal is taking place or will begin. This map shall be updated monthly, and summarized and submitted with the annual report due March 1. If a new area is landfilled, it shall be identified in the corresponding monthly report.
- B. A waste disposal report containing the following information shall be filed with this Regional Board each month:
1. A tabular list of the estimated average monthly quantities (in cubic yards and tons) and types of

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materials (including dewatered sewage sludge) deposited each month.

2. An estimate of the remaining capacity (in cubic yards and tons), and the remaining life of the site in years and months.
3. A certification that all wastes deposited were deposited in compliance with the Regional Board's requirements, and that no wastes were deposited outside of the boundaries of the waste management area as specified in the Regional Board's requirements.
4. A description of the location and an estimate of the seepage rate or flow of all known seeps and springs at the site.
5. The estimated amount of water used at the waste management area for landscape irrigation, compaction, dust control etc., during the month. (If a source other than drinking water is used, the sources and amounts of water from each source shall also be reported.)
6. Quantities of liquid pumped from the leachate monitoring sumps and/or extraction wells, including dates of removal, and the ultimate point of disposal, if other than an onsite leachate treatment plant. If no liquid was detected or pumped during the reporting period, a statement to that effect shall be submitted.

II. GROUND WATER AND VADOSE ZONE MONITORING

A. Provisions and General Requirements

1. For the purposes of this Program, the terms "Monitoring Well", "Extraction Well", "Sump", and "Piezometer" are synonymous.
2. The ground water and vadose zone monitoring program must be carried out during the active life of this waste management area, during the closure and post-closure care periods, and during periods when no wastes are deposited at the site.
3. Analytical results for ground water and vadose zone monitoring shall be submitted with the corresponding quarterly waste disposal report. If a well or monitoring

device for vadose zone was not sampled (or measured) during the reporting period, the reason for the omission shall be given. If no fluid was detected in a monitoring well or vadose device, a statement to that effect (in lieu of analyses) shall be submitted.

4. Monthly observations and measurements of the static water levels shall be made on all monitoring wells and records of such observations shall be submitted with the quarterly reports. All monitoring wells shall be sounded each November to determine total depth, an exception being that wells containing dedicated submersible pumps shall be sounded at such times as pumps are pulled for maintenance or repairs.
5. Duplicate samples shall be taken for all metals analyses. Unfiltered samples shall be tested for total metals, and field-filtered samples (.45 microns) shall be tested for dissolved metals. Both samples must be preserved with nitric acid; however, care shall be taken that the dissolved metals samples are not exposed to acids until after filtering.
6. No filtering of samples taken for VOC's analyses shall be permitted.
7. The velocity and direction of ground water flow under the waste management unit shall be determined quarterly for the first year, and every third quarter thereafter. ("third" means nine months later, not the July to September quarter.)
8. All monitoring wells shall be equipped with dedicated sampling pumps.

B. Ground Water Well and Vadose Zone Monitoring Device Locations

1. Representative ground water samples shall be obtained from at least the following monitoring wells. BRADLEY LANDFILL may monitor and submit additional data from other wells if they so choose.

a. Upgradient wells:

4914G	4915A	4915B	4915C	4915D
4915E	4915E-1			

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- b. Downgradient wells:
4916D 4916F 4926C 4916G 4916H
4916J 4915K-1
- c. 4916C is located west of the Verdugo Fault, and monitors a different ground water regime.

2. The precise locations, depths, well screen lengths and other design criteria for new ground water wells and vadose zone monitoring devices shall be submitted to the Executive Officer for approval as required by Item E-3 of Order No. 94-059.

C. Sampling and Analyses

1. The following are the indicator parameters for this facility: Electrical conductivity, chlorides, sulfates, pH, total organic halogens, and COD.
2. Routine quarterly sampling and analyses shall consist of the following parameters:

<u>Parameters</u>	<u>Units</u>
pH ¹	pH units
Chemical oxygen demand	mg/L
Boron	mg/L
Alkalinity ¹	mg/L
CO ₂₁	mg/L
Fluoride	mg/L
Total organic carbon	mg/L
Total organic halogens	µg/L
Benzene	µg/L
Trichloroethylene	µg/L
Perchloroethylene	µg/L
Vinyl chloride	µg/L
Carbon tetrachloride	µg/L
Dichlorodifluoromethane	µg/L
1,1-Dichloroethane	µg/L
1,1,1-Trichloroethane	µg/L

[1] Although field determination is the preferred procedure for pH in the presence of dissolved carbon dioxide, pH may be determined in the laboratory if the total elapsed time between sampling and testing is less than 6 hours and the sample is properly sealed during transit. Each report shall certify that these conditions were met if laboratory determination of these parameters was done in lieu of field determination.

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3. Routine quarterly sampling and analyses shall consist of the following Constituents of Concern (COCs):
See Attachment I, "Appendix I and Appendix II Constituents". After one year of quarterly monitoring, the Regional Board shall re-evaluate the frequency of monitoring these constituents.

Ordered By:

Robert P. Ghirelli
ROBERT P. GHIRELLI, D.Env.
Executive Officer

Date:

June 13, 1994