

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906**

**REVISED WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2007-0022**

Waste Discharger Identification No. 3 270300008

Proposed for Consideration at the May 11, 2007 Board Meeting

**FOR**

**SALINAS VALLEY SOLID WASTE AUTHORITY  
JOLON ROAD CLOSED CLASS III LANDFILL  
MONTEREY COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter Water Board) finds that:

**LANDFILL OWNER AND LOCATION**

1. The Jolon Road Closed Class III Landfill (hereafter "landfill") is located on 57 acres of a 496-acre parcel owned by the Salinas Valley Solid Waste Authority (hereafter "Discharger") and formerly owned by Waste Management.
2. The landfill access road is located on the west side of Jolon Road, approximately three and one-half miles southwest of King City, two miles from U.S. Highway 101 in Section 30, Township 20 South, Range 8 East, in Monterey County (Figures 1 and 2). The landfill is legally defined by Monterey County Assessor as being located on Parcel Number APN 420-081-016 and 420-081-017.

**PURPOSE OF ORDER**

3. The Discharger submitted a Final Closure and Post-Closure Maintenance Plan (CPCMP), including a Joint Technical Document and Report of Waste Discharge (JTD/ROWD) on May 18, 2005. The CPCMP describes the local geology/hydrogeology, and the schedule and plan for closure and post-closure care. Based on comments from the regulatory community, and the Discharger's wishes to possibly reopen the landfill in the future, the Discharger submitted a revised CPCMP in December 2006. The

revised CPCMP includes a revised schedule and a proposal for an evapotranspirative cover design, which is an engineered alternative to the prescriptive cover design. The proposed cover facilitates the possibility of reopening the landfill at a later date.

4. The Discharger is currently regulated by Waste Discharge Requirements Order No. 01-032 (hereafter "Order 01-032"), as adopted by the Board on May 18, 2001. The primary purpose of proposed Order No. R3-2007-0022 (Hereafter "Order") is to reflect the landfill's closed status, change in ownership, and to revise and update requirements for closure and post-closure maintenance and long-term monitoring, pursuant to California Code of Regulations Title 27, Solid Waste (hereafter "Title 27") effective July 18, 1997, and pursuant to Code of Federal Regulations Title 40, Part 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule, as promulgated on October 9, 1991 (hereafter "40CFR258"). This Order replaces Order No. 01-032, specifies a date for closure construction, specifies a corrective action plan for remediating groundwater impacts at the landfill, and specifically prohibits discharge of waste at the landfill.

Item No. 18 Attachment 1  
May 10-11, 2007 Meeting  
Jolon Road Landfill-Update WDRs  
for Closure

**CLASSIFICATION AND WASTE TYPE**

5. The landfill is classified by the Water Board as a Class III landfill that contains Nonhazardous Solid Waste, pursuant to Title 27 §20200.
6. Historical wastes accepted at the landfill included residential and commercial wastes, tires, construction and demolition wastes, agricultural wastes, small domestic animal carcasses, and septage wastes. Septage waste was placed in a land treatment area at the west end of the landfill up until 1997, when the practice was discontinued and the septage material removed. The waste stream at the landfill consisted of approximately 65 percent residential, 30 percent commercial/industrial, and 5 percent agricultural, with the majority of the waste derived from the King City area.

**LANDFILL DESCRIPTION AND HISTORY**

7. The landfill is approximately three and one-half miles southwest of King City off of Jolon Road (Figures 1 and 2). The landfill is located in the eastern foothills of the Santa Lucia Mountain Range, on the western margin of Salinas Valley, in Monterey County.
8. The area in the immediate vicinity of the landfill is subleased for dry land farming and cattle grazing. The region surrounding the site is largely undeveloped, with no residences located within one-half mile of the landfill. Land zoning within a one-mile radius of the landfill includes permanent grazing areas to the north and south, rural grazing and low-density residential to the east; and farmland west of the landfill. There are approximately 432,000 cubic yards of in-place waste at the landfill with approximately 568,000 cubic yards of remaining capacity.
9. The average annual precipitation is approximately 11.3 inches, with a maximum recorded precipitation of 26.4 inches in 1983, based on rainfall data collected from the King City weather station, over the period of record between 1927 and 2006. Most precipitation occurs from November to April.

The maximum 24-hour precipitation event was 3.3 inches.

10. The landfill began operation in June, 1977 and operated until last receipt of waste in March 1997 using the cut-and-area fill method. The landfill is divided into four modules (Modules 1, 2, 3, and 4A) covering 17 acres (Figure 3). One and one-third-acre Module 4A consists of a composite geosynthetic liner and leachate collection and removal system (LCRS) that are compliant with CCR Title 27, 40 CFR 257 and 258. Modules 1, 2, and 3 do not have an underlying liner and LCRS. Ancillary facilities at the landfill include a maintenance shop, scale and scale house, above ground fuel tank, leachate storage tank, sediment retention basin, waste transfer station, and spring discharge collection tank.
11. In March 1997, the landfill's waste disposal operations were suspended with the completion of waste placement in Module 4A. A long-term interim cover was constructed over existing waste with 18-inches of compacted soil, graded to facilitate drainage. Sludge from clean closure of an onsite septic pond (refer to Figure 3) and sludge from the City of Salinas wastewater treatment plant were added to the long-term interim cover, for a total of about six inches of material to improve vegetative growth.
12. The Final Closure and Post Closure Maintenance Plan and Construction Quality Assurance (CQA) plan for the landfill were commented on and approved by Water Board Executive Officer (hereafter "Executive Officer") in March 2007.
13. The closed landfill will be maintained as non-irrigated, low-maintenance, undeveloped open space.
14. Since March 1997, the landfill site has been used as a refuse transfer station, see location of "Interim Transfer Pad" on Figure 3. The transfer station is approved by Monterey County Environmental Health Department, as the CCR Title 27 Local Enforcement Agency, under Stipulated Order No. 97-01.

15. Monterey County Land Use Zoning Permit, PLN000116, adopted on August 8, 2000, expanded the land use boundary for disposal of municipal solid waste at the landfill from 36 acres to 58 acres. Monterey County Environmental Health Department/Local Enforcement Agency amended the landfill's Solid Waste Facilities Permit 27-AA-006, in part, to allow the increase in boundary, but only to 57 acres.
16. In a March 15, 2007 memo, the California Integrated Waste Management Board confirmed that the landfill closure fund is fully funded, and that the pledge of revenue agreement meets cost projections for post-closure maintenance.

## GEOLOGY/HYDROGEOLOGY

17. **Setting** – The site is located within a narrow valley in the eastern foothills of the Santa Lucia Mountains, a northwest trending mountain range that forms the western boundary of the Salinas Valley.
18. **Topography** – The surrounding hills are moderately to steeply sloped, with elevations of over 1,000 feet mean sea level (msl) in the local drainage system. Within the waste footprint of the landfill, elevations range between 570 feet msl at the top deck and 470 feet msl at the toe, with maximum and minimum elevations of approximately 630 and 450 feet msl, respectively, within the landfill site boundary.
19. **Stratigraphy** – The landfill canyon and immediately adjacent upland areas are underlain by sedimentary bedrock of the Miocene age Monterey Formation. The Paso Robles Formation and Poncho Rico Formation are exposed in the hills north and east of the landfill. The Monterey Formation is overlain by the Pliocene age diatomaceous siltstone of the Pancho Rico Formation in the northeastern part of the landfill property. The Plio-Pleistocene alluvial deposits of Paso Robles Formation locally unconformably overlie (with angular contact) both the Monterey and Pancho Rico Formations to the east of the landfill. Alluvial, colluvial, and local landslide deposits, eroded from the adjacent upland areas, overlie the Monterey Formation in the landfill canyon. The maximum thickness of alluvial/colluvial deposits is approximately 50 feet; however, beneath the waste footprint, most of the alluvium/colluvium was removed to make room for waste and for use as daily cover.
20. **Structure** – The Monterey Formation is folded and locally sheared at the Site. The geologic map indicates that several fold axes occur, with bedding planes striking northwest at dips of up to 80 degrees. The younger Paso Robles Formation is relatively undeformed.
21. **Faulting** – The Discharger's consultant, Geomatrix, prepared a March 2002 report "Revised Site Characterization for Landfill Expansion," developed as part of the Discharger's effort to locate a regional landfill. The March 2002 report identified faults that have displaced Tertiary bedrock within the limits of the landfill, but none of these faults have been active during the Holocene. This was confirmed later by an independent third-party review. Due to the proximity of the San Andres Fault (20 miles east of the landfill), the potential for seismic activity is high, with magnitude 7.5 to 8.5 earthquakes possible. The maximum probable earthquake in the Reliz-Rinconada Fault (1 mile southwest and 2-1/2 miles northeast of the landfill), is estimated to produce peak ground motion of approximately 0.29 times gravitational acceleration (g) for a probability of exceedance of 10 percent in 50 years. Using site specific soil conditions, the peak

ground acceleration is estimated at 0.32 g at the landfill. In a letter dated June 3, 2002, Geomatrix later revised the peak ground acceleration estimate to 0.34 g to account for a postulated "blind thrust" fault beneath the Santa Lucia range.

22. **Hydrogeology** – Groundwater occurs as deep as approximately 70 feet below ground surface in the canyon uplands and surfaces directly east of the landfill, where it discharges at the spring and the sediment retention basin. Groundwater occurs in two units beneath the landfill: the bedrock of the Monterey Formation and the overlying alluvial/colluvial deposits. Groundwater in the bedrock moves principally through fractures, because the primary permeability of the siltstones and shales is very low. The bedrock at the landfill is sufficiently fractured such that it transmits groundwater similar to a porous medium.

Regionally, the groundwater in the bedrock has a variable flow direction, but in the landfill canyon, hydraulic heads suggest groundwater parallels topographical gradient. Groundwater occurs sporadically in the alluvial deposits because of the variable elevation of the top of bedrock and thickness of the alluvium. The alluvium is absent in some areas beneath and around the landfill because of excavation activities. The alluvium has a saturated thickness of approximately 14 feet at the toe of the landfill near monitoring well JR-J2. As groundwater moves down canyon, groundwater intersects the waste at one or more locations.

Based on aquifer tests, estimates of hydraulic conductivity for the alluvium and bedrock are similar. Groundwater velocities are likely highly variable, but average approximately 10 feet per year at the landfill, based on a measured potentiometric gradient of 0.04, mean calculated hydraulic conductivity of  $1.5 \times 10^{-5}$  centimeter per second, and effective porosity of 0.06.

23. The western boundary of the Salinas valley groundwater basin occurs approximately 1 mile northeast of the landfill and is comprised of Paso Robles Formation, alluvium, and river deposits.

## SURFACE WATER AND GROUNDWATER

24. Native groundwater quality beneath the site in the Monterey Formation is poor, with a concentration of total dissolved solids of approximately 4,700 mg/L, sulfate of 2,400 mg/L, and chloride of 430 mg/L according to samples collected from background monitoring well JR-J1. In addition, cadmium, selenium, molybdenum, and arsenic are detected in groundwater at the landfill collected from both background and downgradient wells.
25. The Salinas River is located about 2 miles northeast of the landfill. The nearest primary drainage is Pine Canyon, which is located over a drainage divide about one mile northwest of the landfill.
26. The landfill is located in a moderately to steeply-sided canyon with a watershed of about 132 acres. The limit of waste (Figure 3) comprises an area of about 17 acres, within the canyon's 132-acre watershed. Ephemeral streams located in the canyon flow during and immediately after significant storm events.
27. Surface water runoff from approximately 30 acres of the 57-acre landfill site is directed into a series of ditches that drain into a sedimentation basin located at the toe of Module 1 (Figure 3). Surface water samples are collected during the first and following discharge from the sediment basin.
28. Surface water runoff from the remaining 75 acres within the canyon watershed is captured in drainage ditches that divert flow around the landfill (Figure 4).
29. A 100-year-floodplain map shows the landfill is not within a 100-year floodplain. The landfill is not located within any designated wetland.
30. On September 9, 2006, the Discharger's Notice of Intent seeking coverage under the SWRCB's industrial activities stormwater general permit was processed by the SWRCB.

31. There are eleven groundwater monitoring wells and one water supply well located at the landfill (Figure 3). Two private wells are located near the landfill. The Solari Well lies about 500 feet northeast of the northeast corner of the site boundary. It provides water for livestock watering. The second well is located in the northeast corner of the landfill site and is used primarily for onsite water supply. There are two wells located 3,500 feet east of the landfill that are used by Monterey County Water Resources for regional water quality monitoring. Several domestic wells are located within a one-mile radius of the landfill, but are typically greater than 2,000 feet away from the landfill.
32. In January 2000, volatile organic compounds (VOCs) were detected in monitoring well JR-J2 and surface water in the sediment basin, located directly downgradient from the toe of the landfill. This initiated an evaluation monitoring program (EMP) to determine the nature and extent of the release.
33. Ongoing EMP investigations have resulted in several reports detailing the hydrogeology and nature of the release at the landfill. The Discharger prepared an October 2000 EMP report concluding that the release is localized around the sediment basin area. Subsequently, the Discharger submitted an engineering feasibility study in June 2001 that proposed natural attenuation as the remedial alternative. In letters dated November 2002 and February 2003, the Water Board requested additional information on the nature and extent of the release and further characterization of the alluvium, likely the most significant hydrogeologic unit for transporting groundwater. In May 2005, the Discharger responded with their Additional Evaluation Monitoring Program Report, detailing the additional investigative work. In a report comment letter dated July 7, 2006, the Water Board requested additional data, including information on the role of the bedrock in transporting groundwater at the landfill site. The Discharger provided additional supporting information in their comment response letter. The Water Board approved the EMP in a letter dated October 10, 2006, but stipulated that additional data gaps needed to be addressed and included in the revised feasibility study.
34. The EMP concludes that the VOC impacts result from groundwater coming in contact with waste at the base of the landfill, or from the infiltration of leachate, rather than from dissolution of landfill gas. The impact is isolated in the area of the sediment basin and the spring. Impacted groundwater occurs within both the alluvial and bedrock units to a depth of approximately 25 feet below ground surface. Detected VOC constituents include perchloroethene (PCE), and associated breakdown byproducts trichloroethene (TCE), and cis-1,2-dichloroethene at concentrations ranging from trace to above practical quantitation limits. VOC concentration trends appear stable in well JR-J2 but are increasing in the spring discharge.
35. Total dissolved solid concentrations (TDS) in JR-J3 and the spring discharge are elevated above TDS concentrations in background well JR-J1, which indicates the possibility of an inorganic release. However, the EMP concludes that the elevated TDS is caused by local variations in the dissolution of naturally occurring minerals within the marine sediments of the Monterey Formation. This is supported by signatures of dissolved general chemistry from groundwater and leachate collected at the site.
36. The Discharger submitted the revised engineering feasibility study and Report of Waste Discharge (EFS/ROWD) in March 2007. The engineering feasibility study proposes a corrective action alternative, using phytoremediation and natural attenuation to address the VOC impacts and lower the groundwater table below the waste footprint at the toe of the landfill near JR-J2 and the spring discharge. The EFS/ROWD also quantified the groundwater velocity in the bedrock (10 feet per year). The EFS/ROWD was approved by the Executive Officer in a letter dated March 16, 2007.
37. A perennial spring is located south and adjacent to JR-J2. The spring emanates from a shear zone in the Monterey Formation. In 2001, discharge from the spring was intercepted and diverted around

the sediment basin; low-level VOCs have been detected the discharge since the winter of 2001/2002. The spring discharge is collected in a tank and used as dust control.

38. Four landfill soil-gas monitoring probes are located around the perimeter of the landfill (Figure 3). Because of the landfill's small size, and lack of consistent elevated detections of landfill gas (methane), a landfill gas control system has not been installed. The soil-gas probes are not used as sentinel monitoring devices for potential releases to groundwater because the groundwater is very shallow at the landfill.

### BASIN PLAN

39. The Water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Water Board on September 8, 1994, and approved by the State Water Resources Control Board on November 17, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the water quality objectives stated in that Plan.
40. Currently, groundwater use in the vicinity of the landfill is agricultural and domestic water supply. The Basin Plan identifies the following present and anticipated beneficial uses of groundwater in the vicinity of the landfill:
- Agricultural water supply
  - Municipal and domestic water supply
  - Industrial use

### CALIFORNIA ENVIRONMENTAL QUALITY ACT

41. This Order contains prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect water quality. This Order is for an existing facility and therefore is exempt from provisions of the California Environmental Quality Act (Public Resources Code, §21000, and et seq.) in accordance with Title 14, Chapter 3, §15301.

### GENERAL FINDINGS

42. This Order contains restrictions on individual pollutants. Limitations in this Order have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to state law. The requirements of the Order take into consideration past, present, and probable future beneficial uses of the receiving waters, the environmental characteristics, including water quality, of the bedrock and alluvium hydrogeologic units, coordinated control of all factors which affect water quality in the area, and the need to develop and use recycled water. The Discharger did not submit evidence regarding costs of compliance. Other dischargers throughout the region have achieved compliance with similar limits. No evidence in the record supports failing to protect beneficial uses due to cost considerations.
43. The goal of closure, including but not limited to the installation of a final cover, is to minimize infiltration of water into the waste, thereby minimizing production of leachate and gas. After closure, the final cover constitutes the landfill's principal waste containment feature.
44. The goal of post-closure maintenance is to assure the landfill continues to comply with Title 27 and 40CFR258 closure requirements and the goal described in the prior Finding, until such time as the waste in the landfill no longer constitutes a potential threat to water quality.
45. This landfill is included in Monterey County's Solid Waste Management Plan and is regulated by the California Integrated Waste Management Board.
46. On **February 20, 2007**, the Board notified the Discharger and interested agencies and persons of its intent to issue Waste Discharge Requirements for the closed landfill, and has provided the opportunity to review a copy of the proposed Order and submit written views and comments.

47. After considering all comments pertaining to this discharge during a public hearing on **May 11, 2007**, this Order was found consistent with the above findings.

**IT IS HEREBY ORDERED** pursuant to authority in §13263 of the California Water Code, the Discharger, its agents, successors, and assigns in maintaining the closed Jolon Road Closed Class III Landfill, shall comply with the following:

**A. COMPLIANCE WITH OTHER REGULATIONS AND ORDERS**

1. Discharge of waste, closure, post-closure maintenance and long-term monitoring shall comply with all applicable requirements contained in the California Code of Regulations Title 27, Division 2 Solid Waste (Title 27) and 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria (40CFR258). If any applicable regulation requirements overlap or conflict in any manner, the most water quality protective requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
2. The Discharger shall monitor potential releases from the landfill to surface water runoff by complying with all requirements contained in the "State Water Resources Control Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000001 Waste Discharge Requirements for Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities" (General Permit).

**B. PROHIBITIONS**

1. Discharge of wastes at the landfill is prohibited, except as provided in an Executive Officer approved closure and post-closure maintenance plan for the landfill.
2. Discharge of waste or leachate to ponded water or waters of the State, including groundwater, is prohibited.

**SPECIFICATIONS**

1. The Discharger shall ensure the landfill remains closed and maintain the landfill in conformance with the Water Board Executive Officer approved closure plan, except where the plan conflicts with this Order. In the event of conflict, this Order shall govern in cases where it is more protective of water quality. Any changes to the closure plan that may affect compliance with this Order must be approved by the Executive Officer.
2. Closure and containment systems shall be as follows: All landfill waste disposal areas at final elevations shall receive final cover pursuant to CCR Title 27, Section 21090, which meets either a. or b. below:
  - a.
    - Minimum two-foot-thick foundation layer placed over waste, compacted to maximum density obtainable at optimum moisture conditions [CCR Title 27, Section 21090 (a)(1)].
    - For units that have not been equipped with a Subtitle D composite liner system, a low hydraulic conductivity layer, consisting of one-foot thick compacted clay with a hydraulic conductivity of  $1 \times 10^{-6}$  centimeter per second or less.
    - For units that have been equipped with a Subtitle D composite liner system, a low hydraulic conductivity layer equal to or less than the hydraulic conductivity of the bottom liner system.
    - At least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low hydraulic conductivity layer.
  - b. An engineered alternative design, approved by the Executive Officer, will be considered for final cover areas. Engineered alternative designs must satisfy the performance criteria in 40 CFR Parts 257 and 258, and satisfy the criteria for an engineered alternative to the above prescriptive design, as provided by CCR Title 27. Performance of the alternative composite cover's components, in combination, shall equal or exceed the waste containment capability of the prescriptive design outlined in (a) above.

3. All landfill containment structures and drainage facilities shall be designed, constructed, and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, overtopping, and damage due to natural disasters (e.g., 100 years 24-hour precipitation, the maximum probable earthquake, and severe wind storms).
4. Condensate or leachate handling systems shall:
  - a. Be returned to only a waste management unit equipped with a containment system that meets or exceeds the performance standard of CCR Title 27, CFR, Part 258.40(a)(2), or in this order, whichever is more protective of water quality;
  - b. Be measured by volume and recorded on a monthly basis. These monthly volumes shall be included as a part of monitoring submittals as required in the most recent Monitoring and Reporting Program;
  - c. Have a second containment system sized to hold 100% of the primary containment system holding capacity;
  - d. Be discharged in compliance with this Order.
  - e. Leachate shall not be discharged within 48 hours of any forecasted rain event.
  - f. If leachate is found to be detrimental to the cover vegetation, another appropriate means of disposal shall be used.
5. All landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion. Positive drainage to divert rainfall runoff from areas containing waste shall be provided.
6. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed, to maintain the design capacity of the system.
7. As part of closure construction, drainage from the waste transfer pad must be routed and stored separately from leachate generated at the landfill.
8. Throughout the post-closure maintenance period, the Discharger shall:
  - a. Maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement or other adverse factors.
  - b. Maintain monitoring systems as specified in this Order.
  - c. Prevent erosion and related damage of the final cover due to drainage.
  - d. Protect and maintain surveyed monuments.
9. Discharged waste shall not cause a condition of pollution or contamination to occur, through a measurably significant release of pollutants and/or contaminants, or waste constituents, as indicated by the most appropriate statistical [or non-statistical] data analysis method and retest method listed in MRP No. R3-2007-0022.
10. Discharged waste shall not create nuisance, as defined by California Water Code §13050(m).
11. The Discharger shall prevent formation of a habitat for carriers of pathogenic microorganisms.
12. Wastes discharged in violation of this Order, shall be removed and relocated.
13. The Post-Closure Maintenance Period and Compliance Period, pursuant to Title 27 §20380(d)(1), §20410, §20950 and 40 CFR 258.61 (a) is a minimum of thirty years or until waste discharged at the landfill no longer poses a threat to water quality. The Post-Closure Maintenance Period start date shall correspond with the later of:
  - The final closure construction completion date; or,
  - The date the Executive Officer approves all documents, pursuant to Title 27 [i.e., §20323 – Construction Quality Assurance Plan, §20324(a) – Construction Quality Assurance Performance Standards, §20324(d)(1)(C) – Final Documentation



Report and §21760(a)(1) – As Built Plans].

#### D. WATER QUALITY PROTECTION STANDARDS

1. The discharge of waste shall not cause a statistically significant difference in water quality over background concentrations for proposed Concentration Limits for each Constituent of Concern or Monitoring Parameter (per MRP No. R3-2007-0022) at the Point of Compliance. The Concentration Limits shall be maintained for as long as the waste poses a threat to water quality. Discharge of waste shall not adversely impact the quality of State waters.
2. Point of Compliance is the lesser of: the edge of the landfill's permitted area, as identified in this Order; or, no more than 150 meters (492 feet) from the waste management unit boundary, and shall be located on land owned by the Discharger. The Point of compliance extends vertically down through the uppermost aquifer.
3. Discharged waste shall not cause concentrations of chemicals and radionuclides in groundwater down-gradient of the landfill to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Contaminant Levels of the California Code of Regulations Title 22, Division 4, Chapter 15, Article 5.5.
4. Discharged waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Water Board or the State Water Resources Control Board.
5. Discharged waste shall not adversely impact the quality of underlying groundwater.
6. Discharged waste shall neither cause nor contribute to any surface water impacts, including, but not limited to:
  - a. Floating, suspended, or macroscopic particulate matter or foam.
  - b. Increases in bottom deposits or aquatic growth.

- c. An adverse change in temperature, turbidity, or apparent color beyond natural background levels.
- d. The creation or contribution of visible, floating, suspended, or oil or other products of petroleum origin.
- e. The introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of State waters' beneficial uses.

7. Constituents of Concern and monitoring parameters for groundwater and landfill gas are listed in MRP No. R3-2007-0022. Monitoring points and background monitoring points shall be those specified in MRP No. R3-2007-0022. Performance monitoring specifications for the alternative cover design are included in MRP No. R3-2007-0022.

#### E. PROVISIONS

1. Order No. 01-032, "Waste Discharge Requirements for Jolon Road Class III Landfill", adopted by this Water Board on May 18, 2001, is hereby rescinded.
2. The Discharger is responsible for waste containment, monitoring and correcting any problems resulting from the discharge of waste for as long as the waste poses a threat to water quality.
3. The Discharger shall comply with "Monitoring and Reporting Program No. R3-2007-0022," as specified by the Executive Officer.
4. By **October 1 of each year**, all necessary runoff diversion and erosion prevention measures shall be implemented. All necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed.
5. By **October 1, of each year**, vegetation shall be planted (as necessary) and maintained over all slopes within the entire landfill area to prevent erosion and create transpiration conditions per the cover design specifications. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth that sufficiently removes moisture per the

cover design specifications. Upon Executive Officer approval, non-hazardous sludge may be utilized as a soil amendment to promote vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.

6. By **December 31, 2007**, the Discharger shall complete closure construction at the landfill per an Executive Officer approved closure plan [Specification No. 2].
7. Should additional data become available through monitoring or investigation that indicates compliance with this Order is not adequately protective of water quality, the Water Board will review and revise this Order as appropriate.
8. If the Discharger or the Water Board determines, pursuant to Title 27, §20420, that there is evidence of a release from any portion of the landfill, the Discharger shall immediately implement the procedures outlined in Title 27 Sections 20380, 20385, 20430 and MRP No. R3-2007-0022.
9. The Water Board shall be allowed, at any time and without prior notification:
  - a. Entry upon the landfill area or where records are kept under the conditions of this Order and MRP No. R3-2007-0022.
  - b. Access to copy any records that must be kept under the conditions of this Order and MRP No. R3-2007-0022.
  - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order and MRP No. R3-2007-0022.
  - d. To photograph, sample, and monitor for the purpose of showing compliance with this Order.
10. The Discharger shall take all reasonable steps to minimize or correct adverse impacts on the environment resulting from non-compliance with this Order.

## REPORTING

11. Any person signing a report makes the following certification, whether its expressed or implied: "I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
12. Except for data determined to be confidential under §13267 (b)(2) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the Water Board office.
13. Reports shall be submitted in advance of any planned changes in the permitted landfill or any activity that could potentially result in noncompliance. Advance submittal should reflect relative need for Water Board review and concurrence.
14. By **October 1 of each year**, the Discharger shall submit a Wet Weather Preparedness Report (WWPR). The WWPR shall describe compliance with Provisions E.4 and E.5, above. The report shall also detail preparedness actions taken to ensure discharges to surface or groundwater do not occur during the impending rainy season, and ensure compliance with all other relevant Title 27 and 40CFR258 criteria.
15. The Discharger shall notify the Water Board with a written request of any proposed change in ownership or responsibility for construction or operation of the landfill in accordance with Title 27, §21710 (c)(1). The written request shall be given at least 90-days prior to the effective date of change in ownership or responsibility and shall:
  - a. Be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these Waste Discharge Requirements.

- b. Contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Water Board.
  - c. Contain a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order.
16. Request for change in ownership or responsibility may be approved or disapproved in writing by the Executive Officer. In the event of any change in ownership of this landfill, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Executive Officer.
17. The Discharger shall furnish, within a reasonable time, any information the Executive Officer may request to determine compliance with this Order or to determine whether cause exists for modifying or terminating this Order.
18. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources and with concurrence of the Executive Officer regarding the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with the MRP No. R3-2007-0022, as required by §13750.5 through §13755 and §13267 of the California Water Code.
19. Should the Discharger discover that it failed to submit any relevant facts or that it submitted incorrect information, it shall promptly submit the missing or corrected information.
20. All reports shall be signed as follows:
- a. By either a principal executive officer or ranking elected official.
  - b. Their "duly authorized representative."
  - c. A California Registered Civil Engineer or Certified Engineering Geologist must sign engineering reports.
21. The Discharger shall notify the Executive Officer, within 24 hours by telephone and within 14 days in writing, of:
- a. Any noncompliance potentially or actually endangering health or the environment.
  - b. Any flooding, equipment failure, slope failure, or other change in landfill conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
  - c. Leachate seep occurring on or in proximity to the landfill
  - d. Violation of a Discharge Prohibition.
22. Reports of compliance or noncompliance with, or any progress reports on, final requirements contained in any compliance schedule shall be submitted within 14-days following each scheduled date. If reporting noncompliance, the report shall include a description of:
- a. The reason for non-compliance.
  - b. A description of the non-compliance.
  - c. Schedule of tasks necessary to achieve compliance.
  - d. An estimated date for achieving full compliance.
23. Any noncompliance, which threatens the landfill's containment integrity, shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the above described report.
24. By **April 30 of every year**, the Discharger shall submit an annual Compliance Report addressing compliance with all terms of this Order. The report can be included in the landfill's Annual Report to the Executive Officer.
25. The Discharger shall submit a Financial Assurance Report every five years that either validates the instrument's (described in Finding 16 of this Order) ongoing viability or proposes and substantiates any needed

changes. The next report is due **November 30, 2011** and every five years thereafter.

26. By **April 30, 2008**, complete the initial phase of the groundwater corrective action plan. The approved corrective action is monitored natural attenuation combined with phytoremediation (Finding No. 36). The initial phase of the corrective action shall consist of establishing the demonstration study, to include all necessary soil amendments, irrigation systems, and planting of candidate tree and shrub species. Annual progress reports shall follow, due on **April 30<sup>th</sup>** of each subsequent year, until the Executive Officer is satisfied that the corrective action achieves remedial objectives. By **October 30, 2010**, submit to the Executive Officer, for review and approval, an update to the corrective action plan that proposes the plant species and planting locations for the final phase of corrective action. The final phase of corrective action must be implemented by **April 30, 2011**.

27. By **August 31, 2008**, the Owner shall record a notation on the deed to the Landfill property, or some other instrument that a potential purchaser normally examines during title search. The deed notation shall include a detailed description of the closed landfill, including a map. The description must include at a minimum: the date that closure was completed; the boundaries including height and depths of the filled area; if the site was closed in increments, the boundaries of each waste management unit; and the location where the closure and postclosure plans can be obtained. A copy of the notation will be included in the Landfill record and the Owner will submit a copy of the recorded notation to the Central Coast Water Board Executive Officer. The notation must in perpetuity notify any potential purchaser of the property that:

- a. The land has been used as a landfill,
- b. The land use is restricted by the approved post-closure maintenance plan, pursuant to Title 27, Section 21170. The deed notation must include all information required by Section 21170,
- c. Pursuant to Title 27, Section 21090, should the Discharger default in post-

closure care, liability shifts to the new owner/operator.

28. By **October 1, 2011**, the Discharger must submit an updated Report of Waste Discharge (hereafter "ROWD") pursuant to CCR Title 27 §21710, to the Executive Officer. The ROWD may be submitted in the form of a Joint Technical Document (hereafter "JTD"), in accordance with Title 27 §21585 et al. The ROWD shall meet the following criteria:

- a. Contain information on waste characteristics, geologic and climatologic characteristics of the Unit and the surrounding region, installed features, precipitation and drainage controls, and closure and post closure maintenance plans, in accordance with CCR Title 27 §21740, §21750, §21760, and §21769.
- b. Include a completed SWRCB JTD Index, in accordance with CCR Title 27 §21585(b),
- c. Discuss whether, in the Discharger's opinion, there is any portion of this Order that is incorrect, obsolete, or otherwise in need of revision.
- d. Include any other technical documents needed to demonstrate continued compliance with this Order and all pertinent State and Federal requirements.
- e. Include detailed information regarding regulatory considerations, operating provisions, environmental monitoring, and closure and postclosure.
- f. Details on the performance of the groundwater corrective action and alternative (evapotranspirative) cover.

#### ENFORCEMENT

29. The Discharger must comply with all conditions of this Order. Non-compliance violates state law and is grounds for enforcement action or modification of the Order.

30. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of §13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.
31. The Discharger and any person who violates Waste Discharge Requirements and/or who intentionally or negligently discharges waste or causes or permits waste to be discharged into surface waters or groundwater of the state may be liable for civil and/or criminal remedies, as appropriate, pursuant to Sections 13350, 13385, and 13387 of the California Water Code.
32. Provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
33. This Order does not authorize commission of any act causing injury to the property of another, does not convey any property rights of any sort, does not remove liability under federal, state, or local laws, and does not guarantee a capacity right.
34. All technical and monitoring reports submitted pursuant to this Order are being requested pursuant to §13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order, attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to §13268 of the California Water Code.
35. The Discharger must comply with all conditions of these Waste Discharge Requirements. Violations may result in enforcement actions, including Water Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Water Board. [CWC Sections 13261, 13267, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350].

The Discharger shall comply with the following submittal and implementation schedule for all tasks and/or reports required by this Order:

### REPORT AND IMPLEMENTATION DATE SUMMARY

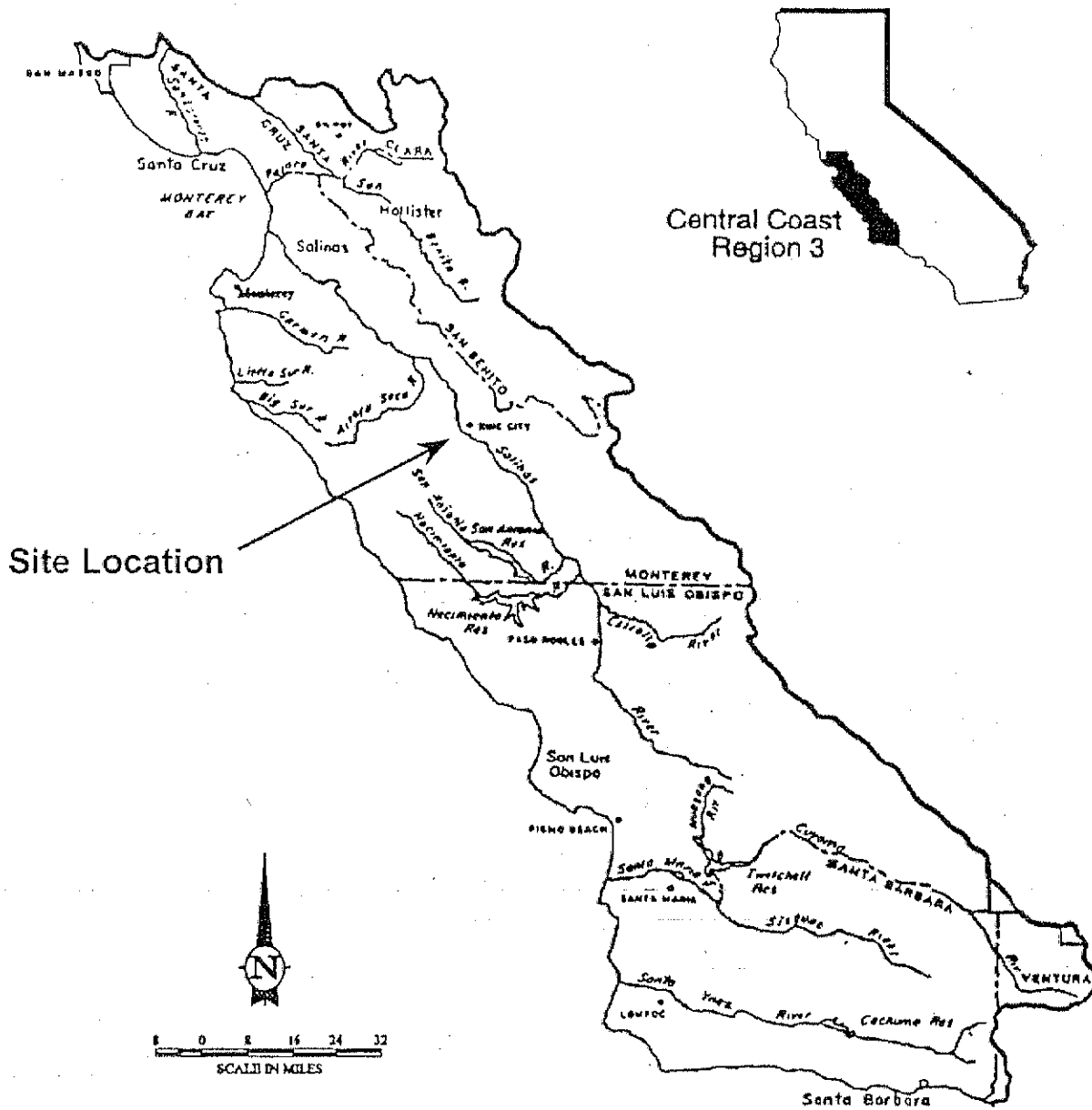
<u>TASK</u>	<u>IMPLEMENTATION DATE</u>
Runoff diversion and erosion prevention [Provision No. E.4]	October 1, of each year
Vegetation placement over entire landfill area [Provision No. E.5]	October 1, of each year
Complete Closure Construction [Provision No. E.6]	December 31, 2007
Implement Corrective Action Plan [Provision No. E. 26]	April 30, 2008
File Deed Restriction [Provision No. E.27]	August 31, 2008
<u>REPORT</u>	<u>DUE DATE</u>
Wet Weather Preparedness Report [Provision No. E.14]	October 1, of each year
Compliance Report [Provision No. E.24]	April 30, of each year
Financial Assurance Documentation [Provision E.25]	November 30, 2011
Corrective Action Progress Report(s) [Provision E.26]	April 30, 2009 and yearly thereafter
Corrective Action Plan Update [Provision E.26]	October 30, 2010
Updated ROWD [Provision No. E.28]	October 1, 2011, and every five years thereafter

**I, Roger W. Briggs, Executive Officer**, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on May 11, 2007.

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**Executive Officer**

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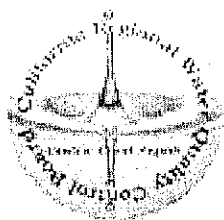


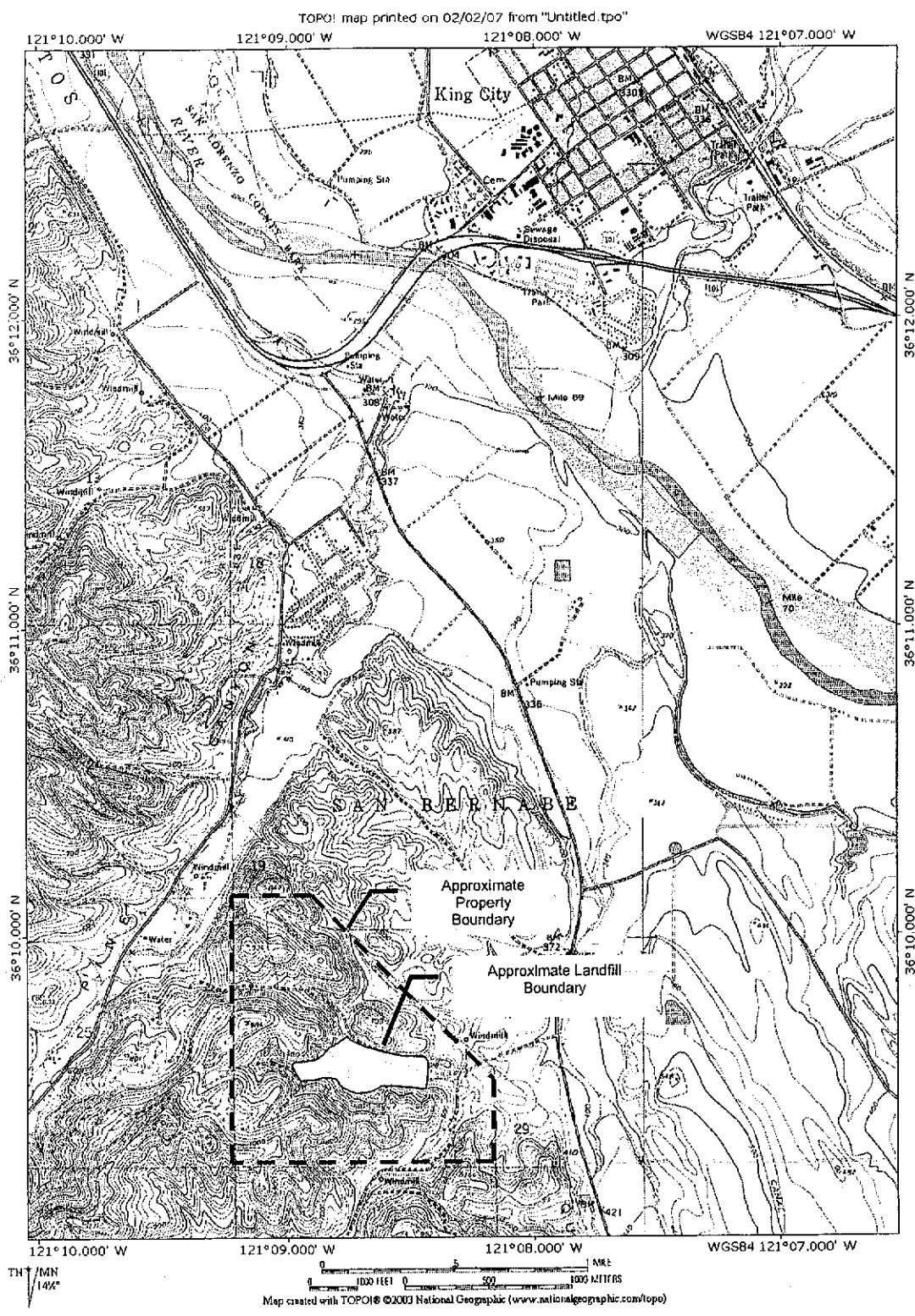
Jolon Road Closed Class III Landfill  
 Monterey, California

Regional Location Map

Figure

1

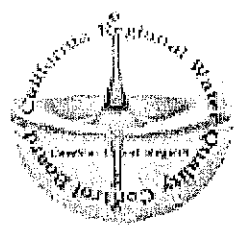




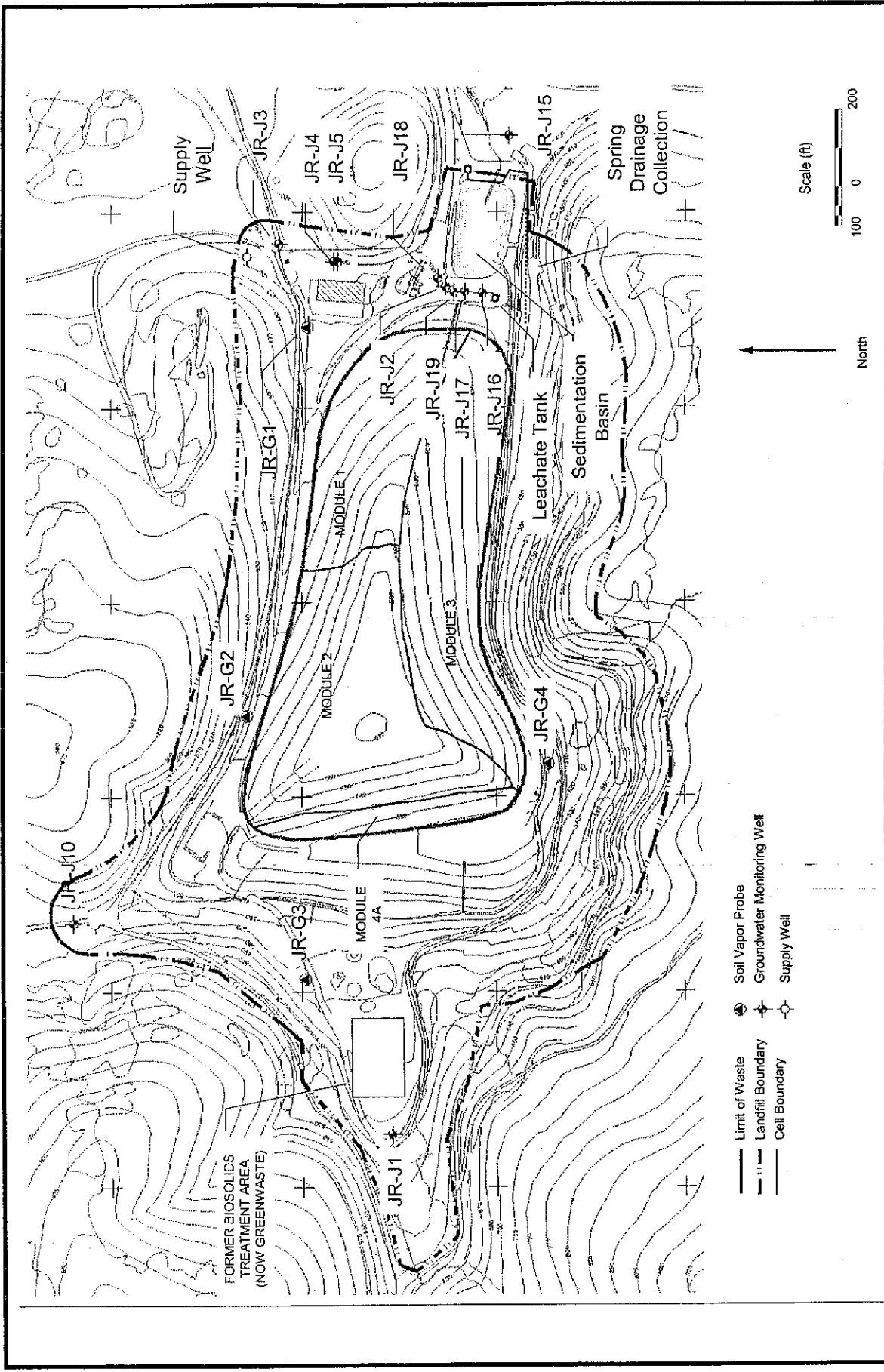
**Jolon Road Closed Class III Landfill  
Monterey, California**

**Site Location Map**

**Figure  
2**

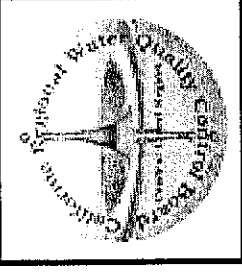


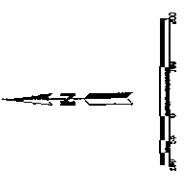
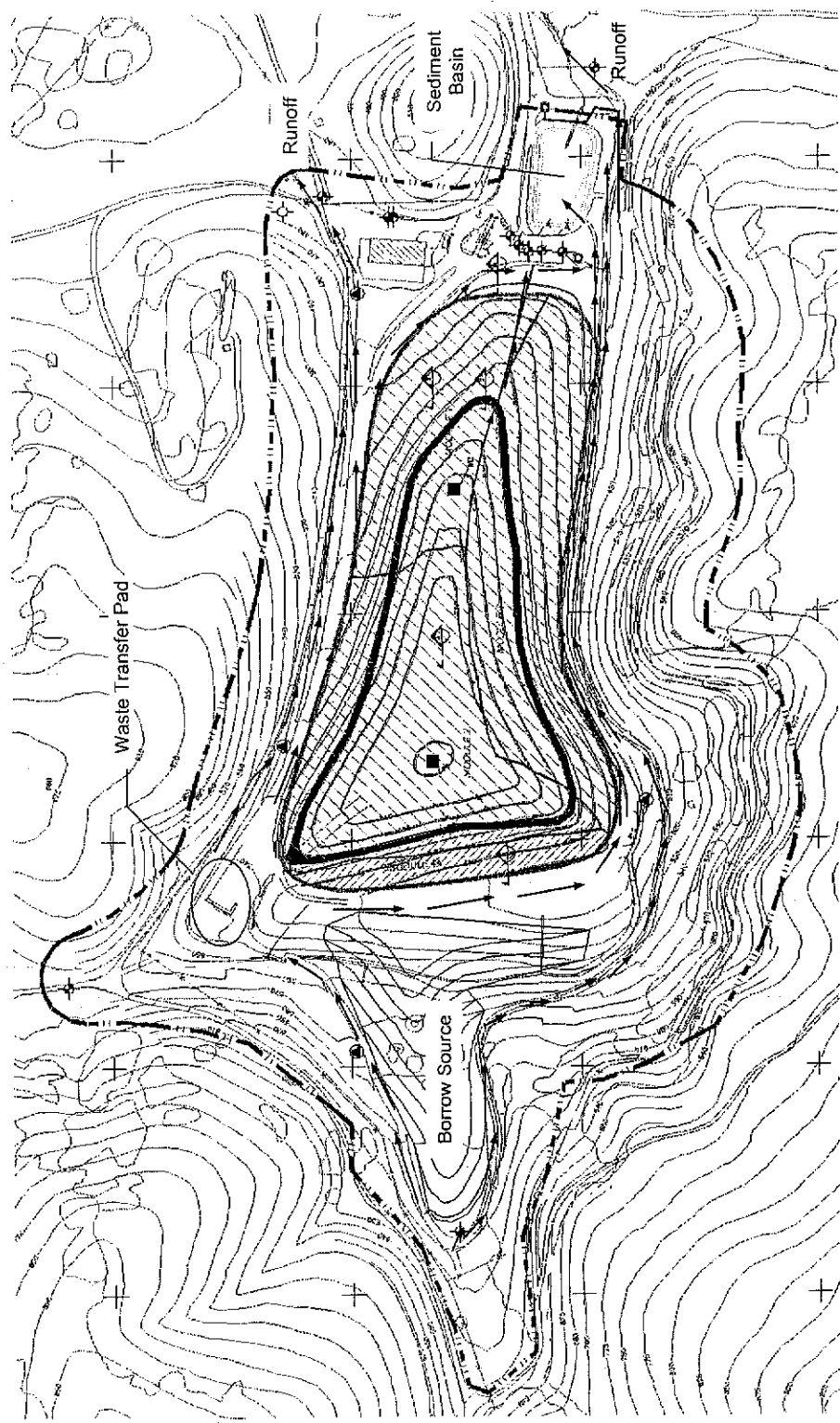




**Figure 3**

**Jolon Road Closed Class III Landfill  
Monterey, California  
Site Plan**

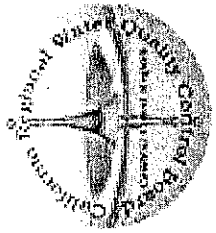




- Limit of Waste
- Site Boundary
- Module Boundary
- Lined Cell
- Unlined Cell
- Gas Probe
- Monitoring Well
- Supply Well
- Survey Monument

**Jolon Road Closed Class III Landfill  
 Monterey, California  
 Final Grading Plan**

**Figure  
 4**



STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401-7906

MONITORING AND REPORTING PROGRAM NO. R3-2007-0022  
Waste Discharger Identification No. 3 270300008

FOR  
JOLON ROAD CLOSED CLASS III LANDFILL  
Monterey County

**PART I: MONITORING AND OBSERVATION SCHEDULE**

Unless otherwise indicated, all monitoring and observations shall be reported as outlined in **Part IV**.

**A. SITE INSPECTIONS**

The Discharger shall inspect the Jolon Road Class III Landfill (hereafter "landfill"), in accordance with the following schedule, and record at a minimum, the **Standard Observations** as defined in **Part V**.

1. Site Inspection Schedule:

- a. During the wet season (October through April), following each storm that produces storm water runoff and discharge, with inspections performed at least monthly.
- b. During the dry season, a minimum one inspection each **three month period**.

2. Standard Observations

- a. At the landfill, which includes inspections at the Waste Management Units (WMUs), along the perimeter of the WMUs and the Recycle Area.
  - i. Whether storm water drainage ditches and sediment/retention basins contain liquids.
  - ii. Evidence of liquid leaving or entering the landfill.
  - iii. Evidence of odors.
  - iv. Evidence of ponding over the WMUs.
  - v. Evidence of erosion
  - vi. Evidence of waste in the drainage system (e.g., ditches and sediment basins).
  - vii. Inspection of storm water discharge locations for evidence of non-storm water discharges during dry season.
  - viii. Integrity of drainage systems during wet season.
- b. For Receiving Waters
  - i. Floating and suspended materials of waste origin.
  - ii. Discoloration and turbidity.

- iii. Evidence of odors.
- iv. Evidence of beneficial use – presence of water-associated wildlife.
- v. Flow rate to the receiving water.

## B. LEACHATE AND DRAINAGE SYSTEMS INSPECTIONS

The Discharger shall inspect all leachate collection and treatment systems and record the following information:

1. **Monthly** - Leachate containment and collection system integrity, surface water collection and drainage system integrity, cover soil and vegetation integrity, record volume of leachate collected (in gallons) and disposal method used;
2. **Annually** – Leachate collection and removal system testing and demonstration, as required by Title 27 §20340(d), results as part of the Annual Summary Report required by this Monitoring and Reporting Program (hereafter "MRP"), Part IV.B. Results of annual testing shall be developed in a manner that makes one year's test comparable to previous and subsequent test. The absence or presence of biofouling shall be specifically addressed in the inspection report.
3. **Additional Inspections**- the Discharger shall inspect all drainage control systems following each runoff-producing storm event and record the following information:
  - a. Whether stormwater storage basins and drainage ditches contain liquids; including stored volumes;
  - b. Evidence of erosion of the cover soils;
  - c. Any apparent seepage from the storage basins;
  - d. General conditions of the stormwater facilities, ditches; and
  - e. Compliance with Storm Water Pollution Prevention Plan, insuring that the terms of the General Permit are properly implemented.
  - f. Steps taken to correct any problems found during inspection and date(s) when corrective action was taken.

## C. RAINFALL DATA

The Discharger shall record the following information:

1. Total precipitation, in inches, during each **three month period**; and,
2. Precipitation, in inches, during the most intense twenty-four hour interval of each **three-month period**.

## D. EVAPOTRANSPIRATIVE COVER PERFORMANCE MONITORING

The following requirements apply during the first five years following the completion of final cover construction:

1. **Soil Moisture Analyses**- Soil moisture profiles shall be monitored at location(s) established by the final closure plan or plans and specifications as approved by the Water Board. Moisture shall be monitored using solid state electronic monitoring devices installed to report soil moisture content at six-inch vertical intervals within the cover section with one monitoring point

located at the base of the cover. Monitoring probes shall be standard of practice soil moisture monitoring instruments calibrated and installed to the manufacturer's specifications. To account for scale effects in permeability, and to minimize probe interference, the probe at each depth will be offset from the adjacent probe. A data logger shall be incorporated to collect and store soil moisture data on an hourly basis.

2. Climatological Data- A local climatological data station in King City may be used to collect daily values of solar radiation, windspeed and direction, relative humidity, temperature, and precipitation for purposes of estimating potential evapotranspiration; however, these data must correlate with local site conditions. Some parameters, such as wind speed, may not correlate such that instrumentation at the landfill is necessary to collect representative measurements.
3. Vegetation Data- On an annual basis, visually estimate the vegetation coverage and vegetative health over the finished surface and compare the observed condition to the initial model assumptions.
4. Soil Profile Data- On an annual basis, visually inspect the cover over at least three transects and describe the surface soil conditions, including any evidence of preferential pathways for percolation of moisture.
5. Runoff- Measure and log hourly runoff rates via a weir or equivalent device that is equipped with an automated logging device, located at the culmination of the landfill drainage system.

#### E. ANALYTICAL MONITORING AND MONITORING LOCATIONS

The Discharger shall monitor the landfill in accordance with the following schedule(s). Monitoring locations are shown on Attachment 1. The Discharger shall comply with the sampling, analyses, and reporting requirements discussed in Part II, III; and IV of this monitoring and reporting program. Semiannual monitoring will be performed **each March/April and September/October**.

##### 1. Analytical Parameters

The Discharger shall analyze all samples from all groundwater and surface water Monitoring Points at the landfill for the Analytical Parameters listed in Table 1, except as noted.

**Table 1. Analytical Parameters**

Parameter	USEPA Method <sup>(1)</sup>	Units
Chloride	300.0	mg/L
Dissolved Oxygen	Field	mg/L
Electrical Conductivity <sup>(2)</sup>	Field	µmhos/cm
Nitrate Nitrogen <sup>(3)</sup>	9200	mg/L
pH <sup>(2)</sup>	Field	Units
Potassium (dissolved)	6010	mg/L
Sodium (dissolved)	6010	mg/L
Sulfate	300.0	mg/L
Temperature <sup>(2)</sup>	Field	°F/C
Total Dissolved Solids	160.1	mg/L
Turbidity <sup>(2)</sup>	Field	NTU
Volatile Organic Compounds <sup>(3)</sup>	8260B	µg/L

## Footnotes:

- (1) Upon receiving prior acceptance by the Central Coast Water Board Executive Officer, an equivalent analytical method can be used.
- (2) These are field parameters as defined by CCR Title 27 §20415(e) 13.
- (3) Monitoring Parameter as defined by Title 27 §20420(e). Includes all Volatile Organic Compounds (VOCs) detectable using USEPA Method 8260B, including at least all 47 organic constituents listed in Appendix I to 40 CFR, 258 (Subtitle D), MTBE, and all unidentified peaks.

2. Description of Monitoring Points

**Groundwater:** In accordance with 40 CFR 258.40(d), and Title 27, the Point of Compliance shall be no more than 150 meters (492 feet) from the waste management unit boundary (hereafter "WMUB") and shall be located on land owned/leased by the Discharger. The nine groundwater Detection Monitoring Points (hereafter "DMP") for this landfill are described as follows (also refer to Attachment 1):

- JR-J2, JR-J17, JR-J18, and JR-J19 shall serve as Point of Compliance wells and are located at eastern end of the WMUB;
- JR-J3, JR-J4, and JR-J15 shall serve as downgradient monitoring points and are located northeastern end of the WMUB; and,
- JR-J1, and JR-J10 shall serve as background monitoring point and are located at the western and northwestern, respectively, end of the WMUB.

**Surface Water Monitoring:** Surface water samples from the spring discharge shall serve as a Monitoring Point. The spring is located at the toe of the east-facing slope of Module 1 (refer to Attachment 1). If groundwater seep(s) in and around the sediment basin show appreciable discharge, and are suspected of being impacted, the Water Board may also require sampling of the seeps.

**Landfill Gas:** Gas monitoring probes JR-G1, G2, G3 and G4 shall be monitored (refer to Attachment 1 for locations). See provision E.5.b below for landfill gas Monitoring Period and Monitoring Parameters.

3. Monitoring Frequency

Sampling and analyses of all Detection Monitoring Points shall be conducted at least once during each Monitoring Period listed in Table 2.

**Table 2. Monitoring Points and Monitoring Periods**

Detection Monitoring Point	Monitoring Purpose			Monitoring Periods		
	Monitoring Parameters	Water Levels	COCs <sup>(1)</sup>	Semiannual <sup>(2)</sup>	Annually <sup>(3)</sup>	Five Year
JR-J1	X	X	X	X		X
JR-J2	X	X	X	X		X
JR-J3	X	X	X	X		X
JR-J4	X	X	X	X		X

Detection Monitoring Point	Monitoring Purpose			Monitoring Periods		
	Monitoring Parameters	Water Levels	COCs <sup>(1)</sup>	Semiannual <sup>(2)</sup>	Annually <sup>(3)</sup>	Five Year
JR-J5	X <sup>(4)</sup>	X	X <sup>(4)</sup>	X <sup>(4)</sup>		X <sup>(4)</sup>
JR-J10	X	X	X	X		X
JR-J15	X	X	X	X		X
JR-J16		X	X	X		X
JR-J17	X	X	X	X		X
JR-J18	X	X	X	X		X
JR-J19	X	X	X	X		X
Spring	X		X	X		X
Leachate	X		X		X	X

(1) COCs are sampled once every five years as discussed in Part I.E.2, except as provided under Part III.D.

(2) Semiannual monitoring shall be performed each March/April and September/October, except as provided under Part III D.

(3) Annual monitoring shall be performed March/April of each year.

(4) Monitoring shall be performed when Concentration Limits are exceeded in JR-J4 for any Monitoring Parameters or COC.

#### 4. Constituents of Concern Monitoring

Constituents of Concern (COC) are listed in Table 3, and either directly includes or includes by reference all constituents list in Appendix II in 40 CFR, Part 258. Analysis of COCs shall be carried out **once every five years** at each of the site's groundwater monitoring points. If there is an indication of release (**Part IV.C.4**) monitoring for COC is also required. The COC monitoring shall be carried out in the fall of one year and the spring of the fifth year. The next COC sampling is scheduled for spring of 2011. DMPs that have not previously been sampled for COCs shall be sampled and analyzed for all COCs within three months of this program becoming effective.

Table 3. Constituents of Concern <sup>(1)</sup>

CONSTITUENTS	USEPA METHOD	UNITS
Antimony	7060	mg/L
Arsenic	7060	mg/L
Barium	6010	mg/L
Beryllium	6010	mg/L
Cadmium	6010	mg/L
Chromium	6010	mg/L
Cobalt	6010	mg/L
Copper	6010	mg/L

Cyanide	9010	mg/L
Lead	7421	mg/L
Mercury	7470	mg/L
Nickel	6010	mg/L
Selenium	7740	mg/L
Silver	6010	mg/L
Sulfide	9030	mg/L
Thallium	7841	mg/L
Tin	6010	mg/L
Vanadium	6010	mg/L
Zinc	6010	mg/L
Chlorophenoxy Herbicides	8150	µg/L
Nonhalogenated Volatiles	8015	µg/L
Organochlorine Pesticides and PCBs	8080	µg/L
Phthalate Esters	8060	µg/L
Organophosphorous Pesticides	8141A	µg/L
Phenols	8040	µg/L
Semi-Volatile Organic Compounds	8270C	µg/L
Volatile Organic Compounds	8260B	µg/L

(1) The Discharger shall analyze for all constituents using the USEPA analytical methods indicated above, including all constituents listed in Appendix II to 40 CFR, Part 258 (Subtitle D).

#### 5. Collection System Performance

##### a. The Leachate Collection and Removal System:

Currently, only the landfill's Module 4A is equipped with a leachate collection and removal system (LCRS). The LCRS operates under gravity. The leachate is collected in an above ground storage tank located near the landfill's scale house. The total volume of leachate collected each month since the previous monitoring report shall be recorded [per CCR Title 27 §20340(h)] and reported semiannually. Quarterly and cumulative totals shall be prepared in tabular and graphical formats semiannually. Disposal method of all collected volumes shall be reported. Leachate shall be analyzed for the Monitoring Parameters (Table 1) annually and for COCs (Table 3) every five years, **beginning in September/October 2006.**

##### b. Landfill Gas Collection System:

No landfill gas collection system exists at the landfill. However, onsite structures (i.e., Scale/Office and Maintenance shop) adjacent to the waste deposit areas shall be monitored quarterly for percent methane concentration. Gas monitoring probes JR-G1, G2, G3 and G4 shall be monitored for methane, carbon dioxide and oxygen quarterly. Monitoring results shall be submitted to the Board in semiannual reports and include information specified in Title 27, §20934.

#### 6. Storm Water Monitoring

Storm Water Monitoring shall be conducted in accordance with the site specific Storm Water Pollution Prevention Plan, under the State Water Resources Control Board's general



stormwater permit for industrial activities. Up to two stormwater samples shall be collected during the wet season, with the first sample collected after the first rainfall event of the season having an associated discharge (during normal business hours). A second sample shall be collected after a subsequent rainfall event that results in an offsite discharge. Samples are collected from a location directly below the sediment retention pond outfall. Sediment removed from the sediment retention basin must be properly characterized and disposed or returned to a location inside of the landfill drainage system.

7. Groundwater Flow Rate and Direction

The Discharger shall measure the water level in each the eleven DMP wells at least once during the monitoring period during approximate times of expected highest and lowest elevations of the water level. The Discharger shall also determine horizontal and vertical gradients, groundwater flow rate, and flow direction for each respective groundwater body.

8. Sample Procurement Limitation

For any given monitored medium, samples taken from Monitoring Points to satisfy the data analysis requirements for a given Monitoring Period shall be taken within a span not exceeding 30 days, and shall be taken in a manner that ensures sample independence to the greatest extent feasible.

## **PART II: SAMPLE COLLECTION AND ANALYSIS**

### **A. SAMPLING AND ANALYTICAL METHODS**

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard U.S. Environmental Protection Agency (USEPA) methods (USEPA publication "SW-846"), and in accordance with a sampling and analysis plan approved by the Water Board's Executive Officer. All water analyses shall be performed by a laboratory certified for these analyses by the State of California Environmental Laboratory Program. Specific methods of analysis must be identified. The director of the laboratory whose name appears in the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from Monitoring Points meets the following restrictions:

1. 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 analytical method having the lowest Method Detection Limit (MDL) shall be selected.
2. Trace results (results falling between the MDL and the Practical Quantitation Limit) shall be reported as such.
3. MDLs and Practical Quantitation Limits (PQLs) shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits are defined in Part V and 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 their 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.

4. 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:
  - a. Method, equipment, and analytical detection limits.
  - b. Recovery rates, an explanation for any recovery rate that is outside the USEPA-specified recovery rate.
  - c. Results of equipment and method blanks.
  - d. Results of spiked and surrogate samples.
  - e. Frequency of quality control analysis.
  - f. Chain of custody logs.
  - g. Name and qualifications of the person(s) performing the analyses.
5. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.
6. 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 attempt to identify and more accurately quantify the unknown analyte(s).

#### **B. CONCENTRATION LIMIT DETERMINATION**

1. For the purpose of establishing Concentration Limits for COC and Monitoring Parameters detected in greater than ten percent of a medium's samples the Discharger shall:
  - a. Statistically analyze existing monitoring data (Part III), and propose, to the Executive Officer, statistically derived Concentration Limits for each COC and each Monitoring Parameter at each Monitoring Point for which sufficient data exist.
  - b. In cases where sufficient data for statistically determining Concentration Limits do not exist, the Discharger shall collect samples and analyze for COC and Monitoring Parameter(s) as required. Once sufficient data are obtained, the Discharger shall submit proposed Concentration Limit(s) to the Executive Officer for approval. This procedure shall take no longer than two calendar years.
  - c. Sample and analyze new Monitoring Points, including any added by this Order, until sufficient data are available to establish a proposed Concentration Limit for all COC and Monitoring Parameters. Once sufficient data are obtained, the Discharger shall submit the proposed Concentration Limit(s) to the Executive Officer for approval. This procedure shall take no longer than two calendar years.
2. Once established, concentration limits shall be reviewed annually by the Discharger. The past year's data will be reviewed for application to revision of concentration limits. When appropriate, new concentration limits shall be proposed.

**C. RECORDS TO BE MAINTAINED**

Records shall be maintained in accordance with CCR Title 27 §21720(f). 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 requested by the Executive Officer. Such records shall show the following of each sample:

1. Identification of sample, Monitoring Point from which the sample was taken, and individual that obtained the sample.
2. Date and time of sampling.
3. Date and time that analyses were started and completed, and the name of personnel performing each analysis.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Results of analyses, and Method Detection Limit and Practical Quantitation Limit for each analysis.
6. A complete chain of custody log.

**PART III: STATISTICAL AND NON-STATISTICAL ANALYSIS OF DATA****A. METHOD DETERMINATION**

The most appropriate statistical method(s) shall be used to determine if there has been a release from the landfill. For each constituent of concern, the Discharger shall first determine if statistical analysis is possible based on the relative frequency the constituent is detected in background data set. Constituents for which no statistical method is appropriate shall be analyzed by the non-statistical method. If the initial analysis tentatively indicates the detection of a release, the Discharger shall implement the appropriate retest procedure in Part III.D. of this Monitoring and Reporting Program.

**B. STATISTICAL ANALYSIS**

For Detection Monitoring, the Discharger shall use statistical methods to analyze COC and Monitoring Parameters that exhibit concentrations that equal or exceed their respective MDL in at least ten percent of applicable historical samples. The Discharger may propose and use any statistical method that meets the requirements of California Code of Regulations, Title 27, §20414(e)(7). All statistical methods and programs proposed by the Discharger are subject to Executive Officer approval.

**C. NON-STATISTICAL METHOD**

The Discharger shall use the following non-statistical method for analyzing constituents, which are detected in less than 10% of applicable historical samples. This method involves a two-step process:

1. From constituents to whom the method applies, compile a specific list of those constituents, which exceed their respective MDL. The list shall be compiled based on either data from the single sample, or in cases of multiple independent samples, from the sample that contains the largest number of constituents.

2. Evaluate whether the listed constituents meet either of two possible triggering conditions: 1) Either the list from a single well contains two or more constituents above the MDL, or 2) it contains one constituent that equals or exceeds its Practical Quantitation Limit. If either condition is met, the Discharger shall conclude that a release is tentatively indicated and shall immediately implement the appropriate re-test procedure under Part III.D.

#### D. RE-TEST PROCEDURE

1. In the event that the Discharger concludes that a release has been tentatively indicated, the Discharger shall carry out the reporting requirements of Part IV.C.2 and, within 30 days of receipt of analytical results, collect two new suites of samples for the indicated COC or Monitoring Parameter(s) at each indicating Monitoring Point, collecting at least as many samples per Monitoring Point as were used for the initial test.
2. Analyze each of the two suites of re-tested data using the same statistical method (or non-statistical comparison) that provided the tentative indication of a release. If the test results of either (or both) of the re-tested data suites confirm the original indication, the Discharger shall conclude that a release has been discovered and shall carry out the requirements of Part IV.C.
3. Re-tests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the COC for Monitoring Parameter(s) which triggered the indication. When an analyte of the VOC composite parameter is re-tested, the results of the entire VOC composite shall be reported. A release is indicated if the originally detected VOC analyte(s) is confirmed in either (or both) of the re-test samples.

### PART IV: REPORTING

#### A. MONITORING REPORT

A written Monitoring Report shall be submitted semiannually by **January 31 and July 31** of each year. Monitoring Reports shall be submitted in an electronic format that is compatible with Geotracker, as stipulated by California State law. In addition, the monitoring reports will be submitted in electronic format with text, tables, figures, laboratory analytical data, and appendices placed on a compact disc in PDF format. Accompanying the electronic version of the report will be a hard copy transmittal letter, with signatures of preparers and submitters (in accordance with Provisions of Waste Discharge Requirements Order No. R3-2007-0022), along with an abstract of the report text. The Monitoring Report shall address all facets of the landfill's monitoring. Reports shall include, at a minimum, the following:

1. Letter of Transmittal

A letter transmitting the essential points shall accompany each report. The letter shall include a discussion of violations that occurred since the last such report was submitted. If no new violations have been discovered since the last submittal, this shall be stated in the transmittal letter. The monitoring report and the transmittal letter shall be signed by a principal executive officer at the level of vice president. Upon Water Board Executive Officer approval, the cited signature can be by a California Registered Civil Engineer or Certified Engineering Geologist who has been given signing authority by the cited signatories. The transmittal letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

2. Compliance Summary

The update shall contain at least:

- a. Discussion of compliance with concentration limits. Release indications and actions taken.
- b. For each monitored groundwater body, calculate groundwater velocity and, based upon water level elevations taken during the Monitoring Period, graphically present groundwater flow direction under and around the Unit.

3. Graphical Presentation of Analytical Data

For each Monitoring Point in each medium, submit, in graphical format, the complete history of laboratory analytical data. Graphs shall effectively illustrate trends and/or variations in the laboratory analytical data and physical parameters (field data). Each graph shall plot a single constituent concentration over time at one (for intra-well comparison) or more (for inter-well comparisons) monitoring points in a single medium. Maximum contaminant levels (MCL) and/or concentration limits shall be graphed along with constituent concentrations where applicable. When multiple samples are taken, graphs shall plot each datum, rather than plotting mean values.

4. Corrective Action Summary

Discuss significant aspects of any corrective action measures conducted during the monitoring period. Calculate pollutant load removed from the sites impacted media by mass (water, gas, and leachate) removal system(s). Mass removal calculations shall be based on actual analytical data as required by Part I.F. Present discussion and indications, relating mass removal data to the violation the corrective action is addressing and method of disposal. Include a graphical display of estimated capture zones in all media.

5. Laboratory Results

Laboratory results and statements demonstrating compliance with Part II and results of analyses performed at the landfill, outside the requirements of this Monitoring and Reporting Program, shall be summarized and reported.

6. Sampling Summary

- a. For each Monitoring Point addressed by the report, a description of: 1) the method and time of water level measurement; 2) the method of purging and purge rate and well recovery time; and 3) field parameter readings.
- b. For each Monitoring Point addressed by the report, a description of the type of sampling device used, its placement for sampling, and a description of the sampling procedure (number of samples, field blanks, travel blanks, and duplicate samples taken; the date and time of sampling; the name and qualification of the person actually taking the samples; description of any anomalies).

7. Standard Observations & Dewatered Sludge

A summary of Standard Observations made and dewatered sludge information collected (Part I) during the Monitoring Period.

8. Map(s)

A map or an aerial photograph showing Monitoring Points, relative physical features, and with groundwater contours overlaid on the map or the aerial photograph to the greatest degree of accuracy possible.

9. Proof of Notice to "Affected Persons"
  - a. Copy of mailing list of "Affected Persons."
  - b. Copy of letter sent to "Affected Persons."
  
10. Evapotranspirative Cover Performance Evaluation
  - a. Collect Part I.D water balance parameter data over a five-year duration following completion and acceptance of final cover construction by the Executive Officer.
  - b. Provide the Water Board Part I.D parameter data on a semiannual basis; in addition, provide tables, graphs, and preliminary performance evaluation in two biannual reports.
  - c. At the end of the five-year monitoring period, model unsaturated zone soil moisture variability using rigorous unsaturated flow software (such as UNSAT-H, or an equivalent computer code) and representative soil permeabilities and soil-moisture characteristic curves.
  - d. Use the results of Part 10.c modeling to check the integrity of the model by comparing the simulated versus actual moisture contents. If observed field conditions (moisture content, vegetation, soil permeability) are not accurately represented by the design model, or if modeling does not mimic the moisture contents observed, then the model shall be re-calibrated using updated input parameters.
  - e. Once consistency is achieved between the simulated and monitored data, compare the flux performance of the alternative to the prescriptive standard cover section, using actual water balance parameter data, and data from relative wet periods in the climatological record (if necessary). Provide the results in one final report at the end of the five-year monitoring period.
  - f. If modeling results in percolation estimates that exceed the prescriptive performance criteria, then the Discharger shall develop a final cover evaluation report including recommendations for mitigation of observed cover conditions in accordance with the submittal requirements for an evaluation monitoring program and engineering feasibility study (Section 20415, CCR Title 27).

## **B. ANNUAL SUMMARY REPORT**

The Discharger shall submit an annual report to the Board covering the previous monitoring year. The annual Monitoring Period ends on December 31 each year. This report may be combined with the first Semiannual Monitoring Report of the year and shall be submitted no later than **March 31 each year**. The annual report must include the information outlined above and the following;

1. Discussion

Include a comprehensive discussion of the compliance record, a review of the past year's 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 up-coming year.
2. Affected Persons Notification

Copy of the annual notice to Affected Persons (Part IV.C.5.c) and mailing list.
3. Statistical Limit Review

Statistically derived concentration limits shall be reviewed annually and revised as necessary. Data collected during the past year shall be discussed and considered for inclusion in, and determination of, proposed limits for the coming year. For statistical limits that are changed from the previous year, include a comprehensive discussion of the proposed limit for Executive Officer review and consideration.

4. Analytical Data  
Complete historical analytical data presented in a tabular form, on compact disk and in Excel™ format or another file format acceptable to the Executive Officer.
5. Map(s)  
A map, or set of maps, that indicate(s) the type of cover material in place (final, long-term intermediate, or intermediate) over inactive and completed areas.

### C. CONTINGENCY RESPONSE

1. Leachate Seep  
The Discharger shall, within 24 hours, report by telephone concerning the discovery of previously unreported seepage from the disposal area. A written report shall be filed with the Board within seven days, containing at least the following information:
  - a. A map showing the location(s) of seepage.
  - b. An estimate of the flow rate.
  - c. A description of the nature of the discharge (e.g., pertinent observations and analysis).
  - d. A summary of corrective measures both taken and proposed.
2. Responses to an Initial Indication of a Release  
Should the initial statistical or non-statistical comparison (under Part III. A or B) indicate that a new release is tentatively identified, the Discharger shall:
  - a. Within 24 hours, notify the Board verbally as to the Monitoring Point(s) and constituent(s) or parameter(s) involved.
  - b. Provide written notification by certified mail within seven days of such determination.
  - c. Either of the following:
    - i. Shall carry out a discrete re-test in accordance with Part III.C. 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 requirements of Part IV.C.4. In any case, the Discharger shall inform the Board of the re-test outcome within 24 hours of results becoming available, following up with written results submitted by certified mail within seven days, or;
    - ii. Make a determination, in accordance with Title 27, §20420(k)(7), that a source other than the waste management unit caused the 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.
3. Physical Evidence of a Release  
If either the Discharger or the Executive Officer determines that there is significant physical evidence of a new release pursuant to Title 27, §20385(a)(3), the Discharger shall conclude that a release has been discovered and shall:
  - a. Within seven days notify the Executive Officer of this fact by certified mail (or acknowledge the Executive Officer's determination).
  - b. Carry out the requirements of Part IV.C.4. for potentially affected medium.
  - c. Carry out any additional investigations stipulated in writing by the Executive Officer for the purpose of identifying the cause of the indication.
4. Release Discovery Response  
If the Discharger concludes that a new release has been discovered the following steps shall be carried out:

- a. If this conclusion is not based upon monitoring for COC, the Discharger shall sample for COC at Monitoring Points in the affected medium. Within seven days of receiving the laboratory analytical results but not more than 30-days from the sampling date, the Discharger shall notify the Executive Officer, by certified mail, of the concentration of COC at each Monitoring Point. This notification shall include a synopsis showing, for each Monitoring Point, those constituents that exhibit an unusually high concentration.
  - b. The Discharger shall, within 90 days of discovering the release, submit to the Executive Officer a Revised Report of Waste Discharge proposing an Evaluation Monitoring and Reporting Program that:
    - (1) Meets the requirements of Title 27, §20420 and §20425.
    - (2) Satisfies the requirements of 40 CFR §258.55(g)(1)(ii) by committing to install at least one monitoring well directly down-gradient of the center of the release.
  - c. The Discharger shall, within 180 days of discovering the release, submit to the Executive Officer a preliminary engineering feasibility study meeting the requirements of Title 27, §20420.
  - d. The Discharger shall immediately begin delineating the nature and extent of the release by installing and monitoring assessment wells as necessary to assure that the Discharger can meet the requirements of Title 27, §20425 to submit a delineation report within 90 days of when the Executive Officer directs the Discharger to begin the Evaluation Monitoring Program.
5. Release Beyond Facility Boundary  
Any time the Discharger or the Executive Officer concludes that a release from the Unit has proceeded beyond the facility boundary, the Discharger shall so notify persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons) as follows:
- a. 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.
  - b. Subsequent to initial notification, the Discharger shall provide updates to 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.
  - c. Annually, the Discharger shall notify Affected Persons concerning the status of the release and corrective action.
  - d. Each time the Discharger sends a notification to Affected Persons (under a. or b. above), the Discharger shall, within seven days of sending such notification, provide the Executive Officer with both a copy of the notification and a current mailing list of Affected Persons. In the case of annual notification to Affected Persons (c. above), notification to the Executive Officer is via the Annual Report.

## **PART V: DEFINITION OF TERMS**

### **A. AFFECTED PERSONS**

Individuals who either own or reside upon the land which directly overlies any part of that portion of a gas or liquid phase release that may have migrated beyond the facility boundary.

### **B. CONCENTRATION LIMITS**

The Concentration Limit for any given COC or Monitoring Parameter in a given monitored medium shall be either:



1. The constituent's statistically determined background value or interval limit, established using an Executive Officer approved method (Part III); or
2. In cases where the constituent's MDL is exceeded in less than 10% of historical samples, the MDL is the concentration limit defined in **Part II. A.1.**

**C. CONSTITUENTS OF CONCERN (COC)**

A broad list of constituents likely to be present at this landfill, as listed in Table 3.

**D. MATRIX EFFECT**

Any increase in the MDL or Practical Quantitation Limit for a given constituent as a result of the presence of other constituents, either of natural origin or introduced through a release, that are present in the sample being analyzed.

**E. METHOD DETECTION LIMIT (MDL)**

The lowest concentration at which a given laboratory, using a given analytical method to detect a given constituent, can differentiate with 99% reliability, between a sample which contains the constituent and one which does not. The MDL shall reflect the detection capabilities of the specific analytical procedure and equipment used by the laboratory.

**F. MONITORED MEDIUM**

Those media that are monitored pursuant to this Monitoring and Reporting Program (groundwater, surface water, liquid, leachate, gas condensate, and other as specified).

**G. MONITORING PARAMETERS**

A short list of constituents and parameters used for the majority of monitoring activities. The Monitoring Parameters for this Unit are listed in **Part I. F.**

**H. MONITORING PERIOD (frequency)**

The duration of time during which a sampling event must occur. Monitoring Period for analysis of all Constituents of Concern is five years; the Monitoring Period for the Monitoring Parameters is semiannual.

**I. MONITORING POINT**

A well, device, or location specified in the waste discharge requirements (WDR) at which monitoring is conducted.

**J. MUNICIPAL SOLID WASTE LANDFILL UNIT OR UNIT**

A discrete area of land or an excavation that receives waste and may be a new unit, an existing unit or a lateral expansion.

**K. POINT OF COMPLIANCE**

A vertical surface located at the hydraulically downgradient limit of a waste management unit (Unit) and that extends through the uppermost aquifer underlying the Unit.

**L. PRACTICAL QUANTITATION LIMIT (PQL)**

The lowest acceptable calibration standard (acceptable as defined for a linear response or by actual curve fitting) times the sample extract dilution factor times any additional factors to account for Matrix Effect. The PQL shall reflect the quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. PQLs reported by the laboratory shall not simply be restated from USEPA analytical method manuals. Laboratory derived PQLs are expected to closely agree with published USEPA estimated quantitation limits (EQL).

**M. RECEIVING WATERS**

Any surface water, which actually or potentially receives surface or groundwater, which pass over, through, or under waste materials or contaminated soils.

**N. VOLATILE ORGANIC COMPOUND (VOC) COMPOSITE MONITORING PARAMETER (VOC composite)**

VOC composite is a composite parameter that encompasses a variety of VOCs. The constituents addressed by the VOC composite Monitoring Parameter include all VOCs detectable using USEPA Methods, 8260 (water) and TO-14 (gas).

**O. WASTE MANAGEMENT UNIT OR UNIT**

An area of land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and for monitoring.

**P. WASTE MANAGEMENT UNIT BOUNDARY**

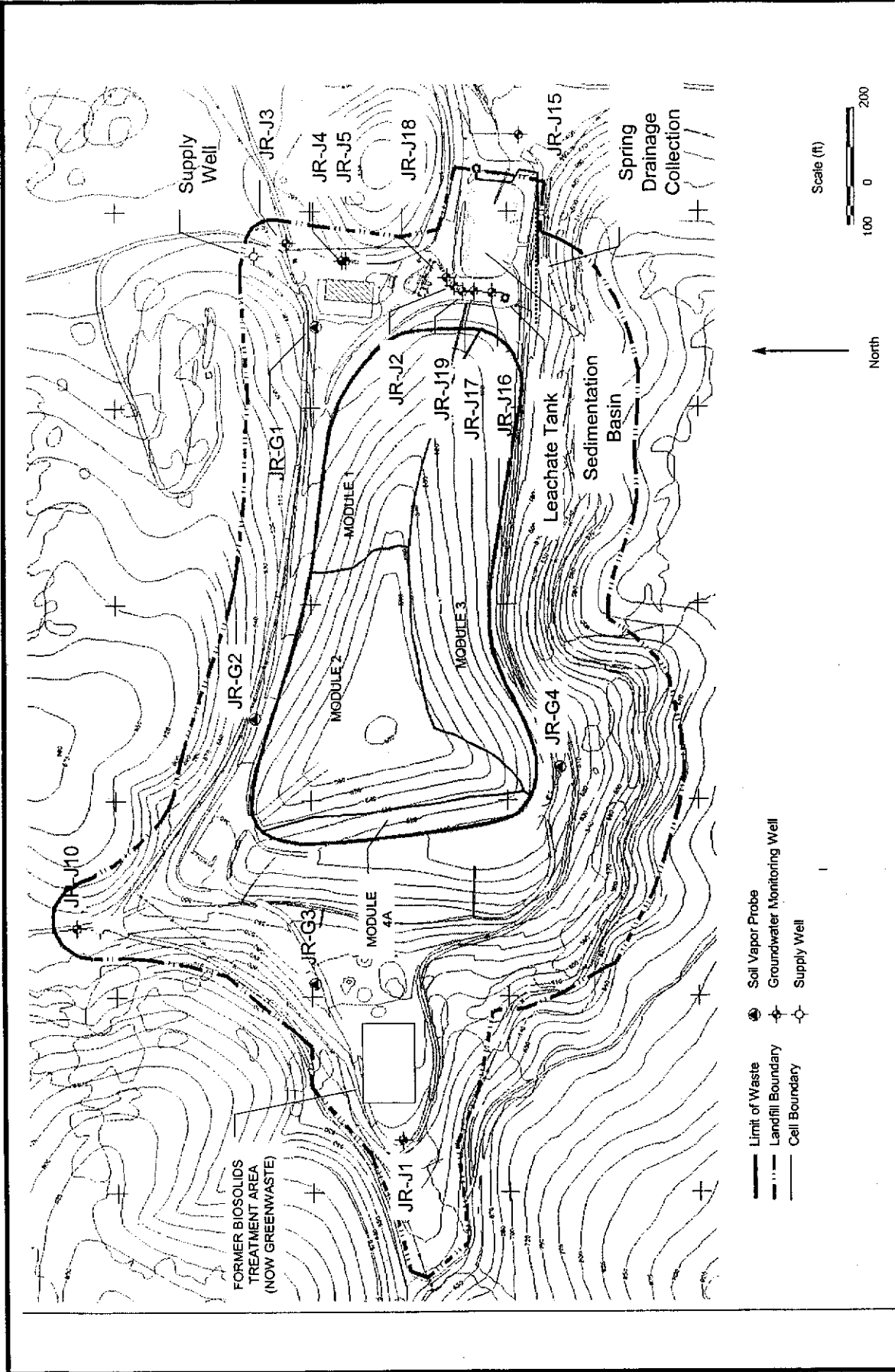
A vertical surface located at the hydraulically downgradient limit of the unit. This vertical surface extends down into the uppermost aquifer.

**Q. WASTE MANAGEMENT FACILITY**

The entire parcel of property at which waste discharge operations are conducted. Such a facility may include one or more waste management units.

ORDERED BY: \_\_\_\_\_  
Executive Officer

DATE: \_\_\_\_\_



**Figure 3**

**Jolon Road Closed Class III Landfill  
Monterey, California**

**Site Plan**

