

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER NO. 01-029

**UPDATED WASTE DISCHARGE REQUIREMENTS AND
RESCISSION OF ORDER NO. 88-059 FOR:**

**WCSJ LLC
HIGHWAY 237 LANDFILL
SAN JOSE, SANTA CLARA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

SITE OWNER AND LOCATION

1. WCSJ LLC owns the Highway 237 Landfill. The previous owner of the site, Cargill, Inc, transferred ownership of the site to WCSJ LLC on October 11, 2000. As current owner of the property, WCSJ LLC hereinafter is referred to as the discharger. WCSJ LLC's affiliate, Legacy Partners Commercial, Inc. (Legacy Partners), is currently managing the landfill redevelopment on behalf of WCSJ LLC. Because Legacy Partners has no apparent ownership interest in the landfill, it is not named as a discharger in this order. Should the ownership change, the Regional Board may reconsider who is named as a discharger.
2. The site is located in the Alviso area of San Jose, at the intersection of Highway 237 and Gold Street. The site is bound by commercial areas to the east and south, San Tomas Aquino Creek to the south and west, and by marshlands and salt evaporation ponds to the west and north (refer to Figure 1). The site encompasses an area of approximately 60 acres.

PURPOSE OF ORDER UPDATE

3. This order updates Waste Discharge Requirements to include general provisions and tasks necessary for commercial real estate development of the landfill and to bring the landfill into compliance with the appropriate portions of Title 27 of the California Code of Regulations (formerly contained in Chapter 15, Title 23), referred to hereinafter as Title 27.
4. The Discharger submitted a revised Postclosure Land Use Proposal in August 2000 which provided information demonstrating that the landfill could be utilized for

commercial development. The August 2000 submittal indicated that the site development could take place without negatively affecting waste containment, water quality, or human or ecological health. Regional Board staff approved the Postclosure Land Use Proposal on September 15, 2000. Additional technical information pertinent to the landfill design in conjunction with site development is required in the Provisions, Specifications, and Prohibitions of this Order.

SITE DESCRIPTION

5. The Highway 237 Landfill is an unlined, unreclassified Class II-2 nonhazardous solid waste landfill. The landfill operated between 1962 and 1982, and was used for the disposal of primarily construction debris, including concrete, wood, and soil. Based on numerous borings at the landfill, up to 13 percent of the landfill is composed of domestic and commercial refuse. The landfill was constructed by placing waste on the natural ground surface of a former tidal marsh. The depth of the waste and soil is up to 60 feet thick. Consistent with landfill practices at that time, no liner was installed at the site. No waste has been disposed of at the site since 1982. The landfill was covered with an interim soil cover in the 1980's. In the early 1990's a final cap was installed on only a portion of the northwestern slope of the landfill. The remainder of the landfill did not receive a cap.
6. The Discharger is planning an approximately 70 acre development that includes the Highway 237 Disposal Site. The development is to include up to five office buildings, a hotel, roadways, structured and surface parking areas, river-front commerce, landscaping, and an open space preserve. Landfill closure, including landfill design and grading and installation of a final cap, is to be completed in conjunction with site development. The conceptual development plan has been approved by the Regional Board staff, California Integrated Waste Management Board, the Local Enforcement Agency, and the City of San Jose.

REGULATORY HISTORY

7. The Regional Board first adopted Waste Discharge Requirements (WDR, Order No. 73-22) for the landfill in 1973. The WDR was revised in 1979 (Order No. 79-160) and again in 1988 (Order No. 88-059). The previous orders established tasks necessary to characterize and contain landfill waste materials and to identify, monitor and prevent water quality impacts. This Order, which updates and supercedes Order No. 88-059, is necessary to reflect the Discharger's proposal for landfill development and to insure that site development does not impair waste containment or water quality.
8. The United States Environmental Protection Agency (EPA) included the Highway 237 Landfill within the boundaries of what is referred to as the South Bay Asbestos site,

which was placed on the EPA's 1984 National Priority List update. The South Bay Asbestos Site has been placed on this list because investigations beginning in 1983 have revealed that asbestos widespread throughout the town of Alviso, and may have been related to fill material brought to the community landfills within the site boundary and potentially distributed throughout the community on individual building lots. An investigation of the South Bay Asbestos Site indicates that the Highway 237 Landfill has not been significantly impacted by asbestos, and that any associated health risk is minimal. The Environmental Protection Agency's Record of Decision for the South Bay Asbestos Area Superfund Site, Alviso District, San Jose, California (dated September 29, 1989) specifies placement of a final cap as a remedial action requirement for landfills within the South Bay Asbestos Area. The final cap proposed for the Highway 237 Landfill complies with the Record of Decision. The Discharger has prepared a Soil Management Plan, which is part of the Postclosure Land Use Proposal, that addresses potential asbestos exposure during construction activities at the Highway 237 Landfill.

LANDFILL CONSTRUCTION HISTORY

9. The landfill initially began accepting waste in 1962. At that time, no bottom liner was required. Landfill waste materials were deposited directly onto the tidal marshlands, as was consistent with industry practice at the time. Groundwater monitoring and leachate collection and containment systems were not required. Filling of the landfill continued until 1982. Fill was placed beyond the actual boundaries of the landfill into the Caltrans right-of-way along Highway 237, and into Santa Clara Valley Water District property along the San Thomas Aquino Creek levee.
10. In the mid 1980's, the soil and groundwater at the Highway 237 Landfill was characterized by sampling in 15 locations across the site. A monitoring program was initiated in 1987. Groundwater wells, leachate wells, and adjacent surface waters were sampled in order to further evaluate whether pollutants were migrating from landfill waste and groundwater or surface waters. Soil gas was also monitored in order to evaluate explosive potential at the landfill.
11. The landfill was covered with an interim soil cover in the 1980's. In the early 1990's a final soil cover was installed on a portion of the northwestern slope of the landfill. In October 2000, the Discharger began regrading of the landfill and installing a final cap over the remainder of the landfill in preparation for site development. Completion of regrading and cap installation for landfill closure is anticipated in June, 2001. The Discharger will also implement erosion controls for the San Tomas Aquino Creek levee and make necessary repairs. Completion of the levee improvements is anticipated by October 2001.

SITE GEOLOGIC AND HYDROGEOLOGIC SETTING

12. The site is located at the northern end of the Santa Clara Valley in the Niles groundwater subarea. The alluvial fill of the Santa Clara Valley is composed of a heterogeneous mixture of gravel, sand, silt, and clay. Gravel and sand were deposited in meandering stream channels draining into the San Francisco Bay. These coarser deposits are the primary aquifers or water producing zones in the San Jose area. These aquifers are interspersed within thick clay layers deposited by bay waters. Regionally, these channel deposits are grouped into upper and lower aquifer zones. In the vicinity of the Bay, these aquifers are separated from each other by an extensive clay aquitard. The upper aquifer zone generally extends to depths of 150 feet; the lower aquifer zone generally occurs below this depth. The upper aquifer zone along the bay margin in the vicinity of the site has been extensively impacted by salt water intrusion.
13. Within the mountain ranges on both sides of the Santa Clara Valley are well defined active earthquake faults. The major active fault zones in the region include the San Andreas, Hayward, and Calaveras fault zones. The site is approximately 12 miles northeast of the San Andreas fault zone, and approximately eight and nine miles southwest of the Hayward and Calaveras fault zones, respectively.

GROUNDWATER CONTAMINATION AND WATER QUALITY

14. Groundwater is encountered at shallow depths of approximately mean sea level in site borings. At depths less than ten feet below ground surface, groundwater has been found to occur within fine sand and silt layers within clay layers. At depths greater than ten feet below ground surface, increased quantities of groundwater are found in thicker sand layers. Tidal fluctuations were measured in wells at the site, indicating that groundwater at the landfill is in hydraulic connection with San Francisco Bay.
15. The primary sources of recharge to the shallow groundwater units are through direct infiltration of on-site precipitation and in upgradient areas, and tidal seepage from the Bay. Runoff from the landfill is channeled to drainage structures to the north and east, to San Tomas Aquino Creek to the southwest, to the Caltrans right-of-way along Highway 237 to the south, to salt evaporation ponds to the west, and to the Guadalupe River to the north.
16. Leachate sampled in the landfill interior contains trace to non-detectable concentrations of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Groundwater samples from perimeter wells contains concentrations of dissolved iron and other inorganic water quality parameters up to two orders of magnitude higher than secondary drinking water limits. Shallow groundwater contains high chloride and total

organic carbon levels, and generally exceeds 3000 mg/l total dissolved solids (TDS). Shallow groundwater is not reasonably expected by the Board to supply a public water supply system. Therefore, the upper aquifer zone in the vicinity of the site meets the exemption criteria of the State Water Resources Control Board's Sources of Drinking Water Policy (SWRCB Resolution 88-63).

17. Sampling in background wells indicates that dissolved metals concentrations in groundwater at the landfill are not significantly higher than metals concentrations in groundwater in the surrounding area.

BASIN PLAN

18. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The State Water Resource Control Board and the Office of the Administrative Law approved the revised Basin Plan on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.
19. Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS, high background contaminant levels, or those areas with a low-yield. Some groundwater underlying and adjacent to the site qualifies as a potential source of drinking water, though there is no current use of the site's groundwater, nor any anticipated plans for its use.

BENEFICIAL USES

20. The beneficial uses of South San Francisco Bay include:
 - a. Wildlife habitat;
 - b. Navigation;
 - c. Water contact recreation;
 - d. Non-contact water recreation;
 - e. Commercial and sport fishing;
 - f. Preservation of rare and endangered species;
 - g. Estuarine habitat;
 - h. Fish migration;
 - i. Fish habitat;
 - j. Industrial service supply; and
 - k. Shellfish harvesting.

21. The existing and potential beneficial uses for groundwater in the vicinity of the Highway 237 Landfill include municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply. Groundwater within the upper aquifer zone is brackish. There is no historical, current or planned use of the groundwater in the vicinity of the landfill as a source of drinking water. However, the deeper aquifers beneath the site are a potential source of drinking water. Groundwater beneath the landfill site discharges to San Francisco Bay has the potential to impact beneficial uses of the bay.

WATER QUALITY PROTECTION STANDARDS

22. Title 27 of the California Code of Regulations requires the RWQCB to establish a Water Quality Protection Standard (WQPS) in Waste Discharge Requirements for each waste management unit covered by that order. The four components of the WQPS are as follows:

- a. Monitoring Parameters

Title 27 defines Constituents of Concern (COCs) as "all waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit". Monitoring parameters (MPs), a subset of the COCs, are typically the most mobile and commonly detected COCs in groundwater at the site and are measured on a more frequent basis than the entire list of COCs. During a corrective action period, monitoring parameters provide a means to evaluate the effectiveness of the corrective action.

- b. Concentration Limits

Maximum Allowable Concentration Limits (MACLs) shall be established for each COC. Because it may be technologically and/or economically infeasible to clean up all landfill-related constituents in the groundwater to background concentrations (non-detect for organics), MACLs are developed to protect the beneficial uses of shallow groundwater beneath the landfill (see Finding 18 - Beneficial Uses). The applicable beneficial uses with the most stringent water quality objectives are related to shallow groundwater discharge to surface waters of San Francisco Bay and include uses involving the health of aquatic organism receptors in the bay and humans who consume aquatic organisms from the bay.

- c. Point of Compliance

Title 27 defines the Point of Compliance as the "vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit." This Order defines that the appropriate Point of Compliance for the landfill is the hydraulically downgradient perimeter of the waste fill area .

d. Monitoring Points

Monitoring points, as defined in Title 27, “means a well, device, or location specified in the waste discharge requirements at which monitoring is conducted and at which the water quality protection standard applies”. This Order requires that the monitoring points shall be located along the perimeter of the landfill.

MONITORING PROGRAMS

23. Groundwater Monitoring – Eight groundwater monitoring wells are located at the landfill perimeter (G-3, G-4, G-6, G-7, G-8, G-9, G-10, and G-11). The monitoring wells serve to indicate whether any contaminants originating on-site may be migrating beyond the site boundary. Five additional characterization wells (G-12, G-13, G-14, G-15, and G-16) are located at the perimeter of the landfill. Two additional off-site wells (BG-1 and BG-2) provided background water quality data.
24. Leachate Monitoring - Three leachate wells are located within the interior of the landfill (LR-3, LR-4, and LR-5). The leachate wells serve to determine whether landfill waste materials are leaching and impacting groundwater. These wells were recently decommissioned to facility landfill closure construction activities. The discharger will submit a plan for replacement of these wells.
25. Surface Water Monitoring –Surface water monitoring will be conducted as part of a General Industrial Storm Water Discharge Permit through Industrial and Construction Stormwater Monitoring Plans (NPDES Permit Nos. CAS000001 and CAS000002, respectively).

CALIFORNIA ENVIRONMENTAL QUALITY ACT

26. A final Environmental Impact Report (EIR) was prepared for the development. On February 8, 2000 the City of San Jose Planning Commission certified that the EIR was completed in accordance with the requirements of the California Environmental Quality Act (CEQA) and state and local guidelines. On February 15, 2000, the San Jose City Council adopted a Resolution No. 69392, which approves the development subject to the Discharger's conformance with all mitigation measures identified in the EIR and the General Development Plan for the development, dated July 14, 1999. The Board accepts the EIR and the City's Resolution, and finds that this Order protects the water resources associated with the project.

27. The environmental impact report determined that the landfill development may have potential geology and soil-related impacts to the site. Such impacts include settlement, seismic-related ground movement, subsidence, deformation of foundation piles, contamination in stormwater run-off, erosion of landfill slopes and levees adjacent to the landfill during a storm event, and potential accumulation of landfill gas. These potential impacts will be addressed by measures that include grading and compacting landfill materials, using pile-supported building foundations, installation of surface drainage structures, providing erosion protection for a 100-year flood event, and installing landfill gas control systems.
28. The report also determined that water quality impacts may also result from site development. Impacts may result from grading waste materials, installation of foundation piles, increases in stormwater run-off, alteration of the landfill cap, and landscape irrigation. These potential impacts will be addressed by installation of the final landfill cap, and if appropriate, use of landfill cap tie-ins and subdrains. The discharger is also required to implement a soil management plan and to comply with the City of San Jose Grading Ordinance, Regional Water Quality Control Board criteria for installation of piles through unlined landfills, NPDES Industrial and Construction Activity Storm Water permits, and a stormwater pollution prevention plan.
29. The Board has notified the Discharger and interested agencies and persons of its intent to adopt revised, updated Waste Discharge Requirements for the Discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
30. The Board, in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 of the California Code of Regulations and Division 7 of the California Water Code and shall comply with the following:

A. PROHIBITIONS

1. The relocation of wastes to or from waste management units shall not create a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.
2. Leachate and ponded water containing leachate or in contact with waste shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.

3. The creation of any new waste management units is prohibited without prior Regional Board approval.
4. The Discharger shall not excavate within or reconfigure any existing waste management unit without prior Regional Board approval.
5. No additional waste shall be permanently deposited or stored at this site.
6. The Discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:
 - a. Surface Waters
 - Floating, suspended, or deposited macroscopic particulate matter or foam.
 - Bottom deposits or aquatic growths.
 - Alteration of temperature, turbidity, or apparent color beyond natural background levels.
 - Visible, floating, suspended or deposited oil or other products of petroleum origin.
 - Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.
 - b. Groundwater
 - Further degradation of groundwater quality.
 - Substantial migration of groundwater impacts.

B. SPECIFICATIONS

1. All reports pursuant to this order shall be prepared under the supervision of a California registered civil engineer, California registered geologist or certified engineering geologist.
2. The site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.

3. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes during the life of the site.
4. The existing containment, drainage, and monitoring systems at the facility, shall be maintained as long as leachate is present and poses a threat to water quality.
5. The Discharger shall assure that the structures, which control leachate, surface drainage, erosion and gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.
6. The final cap system shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.
7. The Discharger shall analyze the samples from the existing groundwater wells as outlined in the Discharge Monitoring Program (Attachment A).
8. In the event of a release of a constituent of concern beyond the Point of Compliance (Section 20405, Title 27), the site begins a Compliance Period (Section 20410, Title 27). During the Compliance Period, the Discharger shall perform an Evaluation Monitoring Program and a Corrective Action Program.
9. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future Discharge Monitoring Program issued by the Executive Officer.
10. Landfill gases shall be adequately vented, removed from the landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.
11. The Discharger shall maintain all devices or designed features installed in accordance with this Order, such that they continue to operate as intended without interruption.
12. The Discharger shall provide a minimum of two surveyed permanent monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the operation and post-closure maintenance period. A licensed land surveyor or registered civil engineer shall install these monuments.
13. The Regional Board shall be notified immediately of any failure occurring in the waste management unit. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.

14. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.
15. The Discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.
16. A final cap shall be placed on the landfill that meets the post-closure maintenance requirements for solid waste landfills as detailed in Section 21090 of Title 27.

C. PROVISIONS

1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these Waste Discharge Requirements. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].
2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by 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 Section 13268 of the California Water Code.

3. ANNUAL MONITORING REPORT

COMPLIANCE DATE: January 31 of each year

The Discharger shall submit an Annual Monitoring Report, acceptable to the Executive Officer, by January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The annual report to the Board shall cover the previous calendar year as described in Part A of the Monitoring Program. In addition to the requirements outlined in Attachment A, this report shall also include the following: location and operational condition of all leachate and groundwater monitoring wells; and a site map delineating groundwater and leachate contours for each monitoring event.

4. SEMI-ANNUAL MONITORING REPORT

COMPLIANCE DATE: July 31 and January 31 of each year

The Discharger shall submit semi-annual monitoring reports, no later than July 31 and January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). January 31 semi-annual report may be combined with the annual report.

5. **ANNUAL MAINTENANCE REPORT**

COMPLIANCE DATE: July 31 of each year

The Discharger shall submit a technical report to the Board, acceptable to the Executive Officer, detailing the repair and maintenance activities that need to be completed prior to the commencement of the next rainy season. This letter report shall also include a schedule for repair and maintenance activities, and a cost analysis detailing the anticipated expense for all repairs, maintenance and monitoring during the next 12 months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the Discharge Monitoring Plan.

6. **EMERGENCY RESPONSE CONTINGENCY PLAN**

COMPLIANCE DATE: June 30, 2001

The Discharger shall submit a technical report, acceptable to the Executive Officer, outlining measures necessary in order to stop and contain the migration of pollutants to receiving waters as the result of any earthquake generating ground shaking, excessive rainfall, tidal action, or other significant events. The contingency plan shall describe the containment features, and groundwater monitoring and leachate monitoring facilities potentially impacted by such events. The plan shall also include methods of containment and cleanup of waste exposed or displaced at the site. Inspection and reporting for earthquake damage shall be mandatory for any earthquake of Richter Magnitude 7 or greater at or within 30 miles of the landfill. The plan shall provide for reporting results of the post earthquake inspection to the Board within 72 hours of the occurrence of the earthquake. Immediately after an event causing damage to the landfill structures, the corrective action plan shall be implemented and the Discharger shall give immediate notification to the Regional Board as well as the Local Enforcement Agency (LEA) of any damage, including corrective actions and cleanup activities, and the environmental impacts of such.

7. **CONSTRUCTION AND QUALITY ASSURANCE REPORT**

COMPLIANCE DATE: September 28, 2001

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, which documents pursuant to Title 27 completion of final closure of the landfill as described in the August 2000 Postclosure Land Use Proposal. The report shall include documentation that the final grading and capping of the landfill has been completed as specified in the Postclosure Land Use Proposal and shall include the results of all field-testing and measurements.

8. **FINANCIAL ASSURANCE INSTRUMENT**

COMPLIANCE DATE: October 31, 2001

The Discharger shall obtain and maintain a Financial Assurance Instrument acceptable to the Executive Officer until the end of the Post-Closure Maintenance Period for the landfill subject to the California Code of Regulations Title 27, Chapter 6, Subdivision 1, Division 2. The Discharger shall submit a report every five years that either validates the Instrument's ongoing viability or proposes and substantiates any needed changes (e.g., a documented increase in the monitoring systems' ability to provide reliable early detection of a release can cause a decrease in the Instrument's financial coverage). For the purposes of planning the amount of the fund, the Discharger shall assume a post-closure period of at least 30 years. However, the post-closure maintenance period shall extend as long as the wastes pose a threat to water quality.

9. **WATER QUALITY MONITORING PLAN**

COMPLIANCE DATE: September 28, 2001

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, pursuant to Title 27 and as required by The Self-Monitoring and Reporting Program included as Attachment A to this Order. The plan shall propose points of compliance (POCs), Contaminants of Concern (COCs), Monitoring Parameters (MPs), Maximum Allowable Concentration Limits (MACLs), and the methods for validating data and statically evaluating whether a MACL exceedence at a POC is significant. Approved MACLs shall be attached to the Self-Monitoring and Reporting Program and identified as Table B. The plan shall include a Water Quality Sampling and Analysis Plan (SAP) which gives a complete and detailed description of the physical process for obtaining field information, measurement, and water quality samples. The SAP should propose the installation of new sampling points as necessary as the result of site development. The SAP shall be usable as a stand-alone document and shall be provided to each member of the sampling team.

10. **LEACHATE ASSESSMENT REPORT**

COMPLIANCE DATE: December 31, 2002

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, that provides an evaluation of leachate buildup within the waste management unit. If excessive leachate buildup is detected, the report shall include a proposal for corrective action. The proposal shall include plans for leachate collection, extraction, and disposal. The leachate extraction system shall be designed to establish an inward or flat hydraulic gradient.

11. POST-CLOSURE DEVELOPMENT DESIGN

COMPLIANCE DATE: 120 days prior to commencement of construction

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, for the initial development or redevelopment project proposed for the landfill. The technical report shall describe the project, identify key components of the design that may impact the landfill, and specify components of the design necessary to maintain integrity of landfill cap and to prevent water quality impacts.

12. CHANGES TO POST-CLOSURE DEVELOPMENT DESIGN

COMPLIANCE DATE: 120 days prior to commencement of construction

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, describing proposed changes to site development or redevelopment projects for the landfill. The technical report shall describe the project, identify key changes to the design which may impact the landfill, and specify components of the design necessary to maintain integrity of the landfill cap and prevent water quality impacts.

13. CHANGE IN SITE CONDITIONS

NOTIFICATION DUE DATE: Immediately upon occurrence
REPORTING DUE DATE: 30 days after initial notification

The Discharger shall immediately notify the Board of any flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, or other change in site conditions that could impair the integrity of the landfill cap, waste or leachate containment facilities, and/or drainage control structures and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

14. DISCHARGE MONITORING REPORTS

COMPLIANCE DATE: As specified in Discharge Monitoring Program

The Discharger shall file with the Regional Board Discharge Monitoring Reports performed according to any Discharge Monitoring Program issued by the Executive Officer.

15. STORMWATER CONTROL PLANS

COMPLIANCE DATE: October 15 of the year of construction or prior to construction if commencing between October 15 and May 15

For each proposed development greater than 5 acres in size, the Discharger shall submit a Notice of Intent to the State Water Resources Control Board, prepare and submit a Storm Water Pollution Prevention Plan acceptable to the Executive Officer, and implement Best Management Practices (BMPs) for the control of storm water, in accordance with requirements specified in the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction Activities (NPDES Permit No. CAS000002).

16. WELL INSTALLATION REPORT

COMPLIANCE DATE: 45 days following completion of well installation activities

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all new wells installed as part of the present or future Discharge Monitoring Program (Attachment A).

17. The Discharger shall maintain a copy of these waste discharge requirements and these requirements shall be available to operating personnel at the facility at all times [CWC Section 13263].
18. This Board considers the property owner(s) and site operator(s) to have responsibility for correcting any problems that arise in the future as a result of the waste discharged or related operations on their respective parcels which each owns or controls.
19. In the event that the property adjacent to the landfill is developed into residential dwellings, the Discharger will notify prospective home purchasers of the presence of the landfill.

20. The Discharger shall permit the Regional Board or its authorized representative, upon presentation of credentials:
 - a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
 - b. Access to copy any records required under the terms and conditions of this order.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.
 - d. Sampling of any discharge or groundwater governed by this order.
21. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes.
22. In the event of any change in control or ownership of land or parcel of land, or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. The Discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
23. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics [CWC Section 13263].
24. Where the Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information [CWC Sections 13260 and 13267].

25. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from his liability under Federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge [CWC Section 13263(g)].
26. Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.
27. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order [CWC Section 13263(f)].
28. Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the Discharger is in violation of a prohibition in the applicable water Quality Control Plan [CWC Section 13271(a)].
29. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided orally to the Executive officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to

continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours [CWC Sections 13263 and 13267].

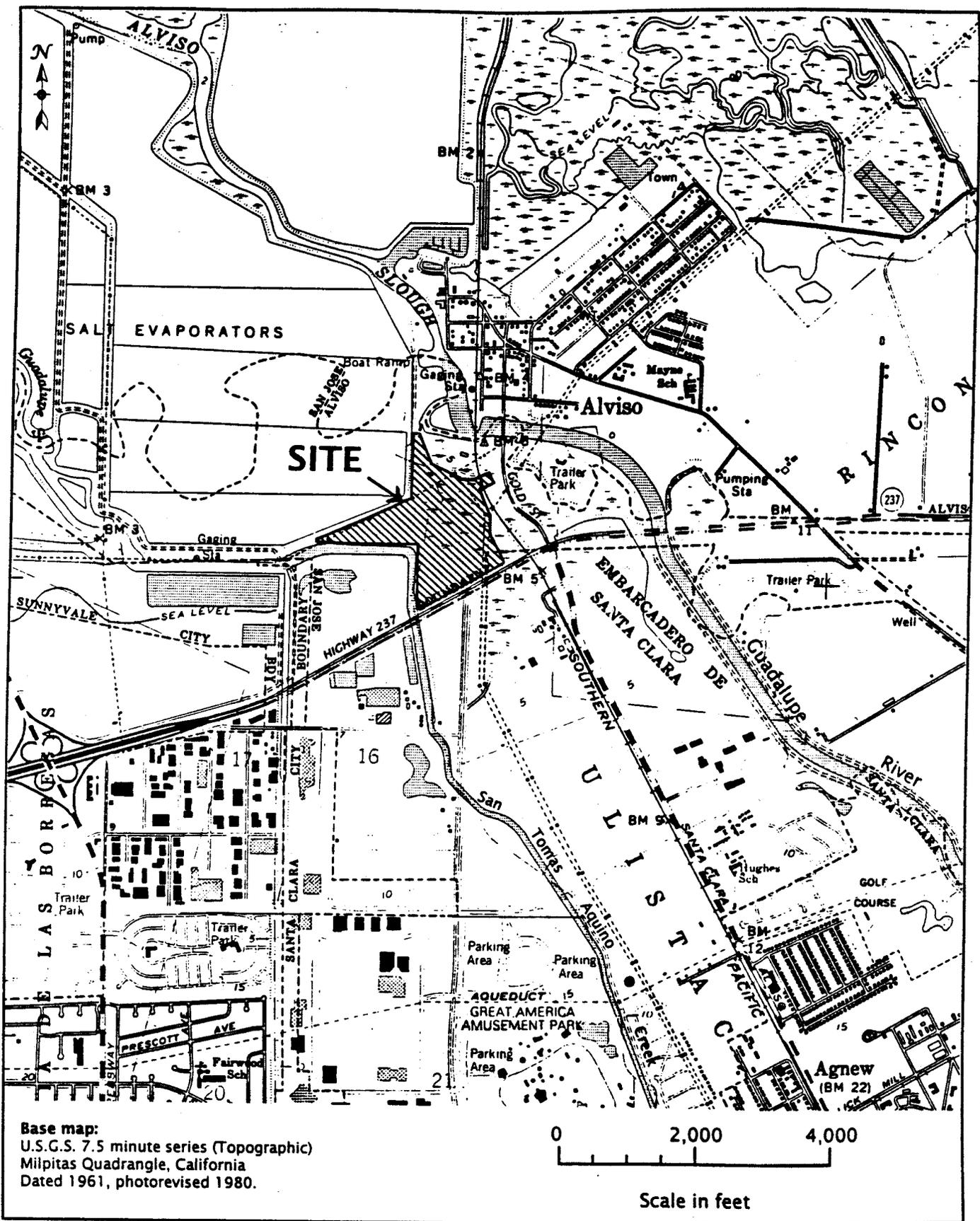
30. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
31. This Board's Order No. 88-059 is hereby rescinded.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 21, 2001.


Loretta K. Barsamian
Executive Officer

Figures: Figure 1 - Site Location Map

Attachment: Attachment A - Discharge Monitoring Program



 <p>CRAWFORD CONSULTING INC.</p>	<p>Project LP4615 Highway 237 Disposal Site, San Jose, California WCSJ LLC</p> <p>Figure 1. Site Location</p>
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ATTACHMENT A

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

DISCHARGE MONITORING PROGRAM

FOR

**HIGHWAY 237 LANDFILL
SAN JOSE, SANTA CLARA COUNTY**

ORDER NO. 01-029

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Title 27 of the California Code of Regulations.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the discharger in complying with the requirements of Title 27.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Regional Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters refers to any surface that actually or potentially receives surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, and the San Francisco Bay are considered receiving waters.

3. Standard observations refer to:
 - a. Receiving Waters
 - 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
 - 2) Discoloration and turbidity: description of color, source, and size of affected area.
 - 3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 4) Evidence of beneficial use: presence of water associated wildlife.
 - 5) Flow rate
 - 6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.
 - b. Perimeter of the waste management unit.
 - 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion and/or daylighted refuse.
 - c. The waste management unit.
 - 1) Evidence of ponded water at any point on the waste management facility.
 - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
 - 3) Evidence of erosion, slope or ground movement, and/or daylighted refuse.
 - 4) Adequacy of access road
 - 5) Condition of site drains, silt basin capacity
 - 6) Standard Analysis and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analyses, and observations in the following media:

1. Storm drain discharges per Section 20415
2. Groundwater and leachate per Section 20415

and per the general requirements specified in Section 20415(e) of Title 27.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Calculation of results.
6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written detection monitoring reports shall be filed by January 31 and July 31 of each year. In addition an annual report shall be filed by January 31 of each year. The reports shall be comprised of the following:

- a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The 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.

- b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:
- 1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.
 - 2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.
 - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.
- c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.
- d. Laboratory statements with the results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.
- 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.
 - 2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that are outside laboratory control limits; the results of equipment and



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method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

- e. An evaluation of the effectiveness of the leachate monitoring facilities, which includes an evaluation of leachate buildup within the disposal units.
- f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

2. CONTINGENCY REPORTING

A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

- 1) a map showing the location(s) of discharge if any;
- 2) approximate flow rate;
- 3) nature of effects; i.e. all pertinent observations and analyses; and
- 4) corrective measures underway, proposed, or as specified in the Waste Discharge Requirements.

3. REPORTING

By January 31 of each year the Discharger shall submit an annual report to the Board covering the previous calendar year. The annual report may incorporate the second semi-annual report of the previous year. The annual report shall contain:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a computer data disk, tabulating the year's data in Microsoft Excel.
- b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
- c. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.
- d. An evaluation of the effectiveness of the leachate monitoring/control facilities, which includes an evaluation of leachate buildup within the disposal units.

4. WELL LOGS

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 45 days after well installation.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. ON-SITE OBSERVATIONS – Observe quarterly, Report Semi-annually

<u>STATION</u>	<u>DESCRIPTION</u>	<u>OBSERVATIONS</u>	<u>FREQUENCY</u>
A-1 to A-'n'	Located on the area as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	Quarterly
L-1 thru L-'n'	At each point of discharge. Include a map indicating locations of discharge(s)	Standard Test as outlined in Table A. Grab sample taken from seeps with flow rates exceeding 5 gpm.	Quarterly
P-1 thru P-'n'	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit.	Standard observations for the perimeter.	Quarterly
S-1 thru S-'n'	At any point(s) at which seepage is found occurring from the disposal area	Standard test as outlined in Table A (perform analysis) once per seep)	Daily until remedial action is taken and seepage ceases.

B. SURFACE, GROUNDWATER AND LEACHATE MONITORING - Report Semi-annually

- i. Surface and Stormwater: Surface water shall be monitored as outlined below and in Table A (Attached). These monitoring points are also shown on Figure 2 (Attached). The results of the additional monitoring conducted as part of the General Permit for stormwater discharge shall be submitted as part of the annual report.

Monitoring Points:

Surface Water	Comply with the requirements of the General Industrial Storm Water Runoff Program
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- ii. Groundwater: Groundwater samples shall be analyzed as outlined below and in Table A (Attached).

Monitoring Points:

Groundwater	G-3, G-4, G-6, G-7, G-8, G-9, G-10, G-11, G-12, G-13, G-14, G-15, G-16, BG-2, and any new wells
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- iii. Leachate: Leachate samples shall be analyzed as outlined below and in Table A (Attached).

Monitoring Points:

Leachate	Replacement wells for LR-3, LR-4, LR-5, and any new wells
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C. FACILITIES MONITORING

The Discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report semi-annually.

- D. Reports shall be due on the following schedule:

First semi-annual report:	July 31 of each year
Second semi-annual Report:	January 31 of each year
Annual Report:	Combined with the second semi-annual report, due January 31 of each year

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 01-029.
2. Is effective on the date shown below.
3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.


Loretta K. Barsamian
Executive Officer

Date Ordered: March 21, 2001

Attachment: Table A - Schedule for Sampling, Measurement, and Analysis

Figure 2 - Monitoring Locations

Table A - Discharge Monitoring Plan, List of Analytical Parameters, Surface, Stormwater, Leachate and Groundwater

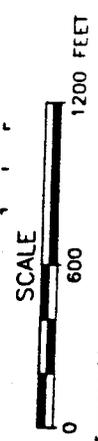
Parameters	Method*	Frequency
pH	Field	Quarterly
pH	150.1	Quarterly
Chloride	300.0	Quarterly
Ammonia (un-ionized)	350.3	Quarterly
Nitrate as Nitrogen	353.2	Quarterly
COD	410.1	Quarterly
Electrical conductivity	Field	Quarterly
Electrical conductivity	120.1	Quarterly
Volatile Organic Compounds (8010 list)	8260	Quarterly
BTXE/MTBE (5 wells only)**	8021	Quarterly
MTBE	8021	Quarterly
Leachate Elevation	Field	Quarterly
Groundwater Elevation	Field	Quarterly
Arsenic	7060	Quarterly
Chromium	6010	Quarterly
Copper	6010	Quarterly
Lead	7421	Quarterly
Nickel	6010	Quarterly
Zinc	6010	Quarterly
Iron	6010	Quarterly
Phenols, total	420.1	Quarterly
Total Kjeldahl Nitrogen	351.4	Quarterly
Turbidity	Field	Quarterly

Notes:

- * Test methods per Methods for Chemical Analysis of Water and Waste, USEPA 600/4/79/029, revised March 1983, or Test Methods for Evaluating Solid Wastes Physical/Chemical Methods, USEPA SW-846, 3rd edition, November 1986 and revisions.
- ** Wells G-12, G-13, G-14, G-15, and G-16



- EXPLANATION**
- ⊙ GROUNDWATER MONITORING WELL SCREENED IN SHALLOW ZONE
 - GROUNDWATER MONITORING WELL SCREENED IN MINUS-30-FOOT SAND
 - ▲ PIEZOMETER SCREENED IN SHALLOW ZONE
 - ▲ GAS PROBE/PIEZOMETER SCREENED IN SHALLOW ZONE
 - LEACHATE CHARACTERIZATION WELL
 - ⊠ LEACHATE RISER
 - / INDICATES DECOMMISSIONED OR DESTROYED



CRAWFORD CONSULTING INC.

Topographic base compiled from survey by Kier & Wright Civil Engineers & Surveyors, Inc., Santa Clara, California 95054.
Date of drawing: January 18, 1999.

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Number	Date	Drawn By	Approved By	Project No.

**HIGHWAY 237 DISPOSAL SITE
SAN JOSE, CALIFORNIA
WCSJ LLC**

**GROUNDWATER AND LEACHATE
MONITORING LOCATIONS**

Project No.
174618

Page No.
2