CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

MONITORING AND REPORTING PROGRAM NO. R3-2006-0018
Waste Discharger Identification No. 3 440301001
Proposed for Consideration at the May 12, 2006 Board Meeting

For

SANTA CRUZ CLASS III LANDFILL
SANTA CRUZ COUNTY

PART I: MONITORING AND OBSERVATION SCHEDULE

Unless otherwise indicated all required monitoring and observations shall be reported in the Detection Monitoring Report and/or the Annual Summary Report, as outlined in Part IV of this Monitoring and Reporting Program.

A. SITE INSPECTIONS

The Discharger shall inspect the Landfill site, in accordance with the following schedule, recording, at a minimum, the Standard Observations as defined in Part V.

Site Inspection Schedule:

1. During the wet season (October through April) and following each storm which produces storm water discharge, with inspections performed at least monthly.
2. During the dry season a minimum one inspection each Monitoring Period

B. INTAKE MONITORING

The Discharger shall maintain a daily record of the waste stream. The record shall include the following:

1. Weight and volume of waste received.
2. Running totals of volume received, volume remaining for waste placement, and site life expectancy.
3. Current fill area.
4. Waste type and diversion quantities.
5. Log of random load checking program. The log shall contain a record of refused loads, including the type of refused waste, and the date, name, address, and phone number of the party attempting to dispose of the waste.

C. LEACHATE COLLECTION AND DISPOSAL SYSTEM INSPECTIONS

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

1. *Record Weekly*; leachate containment system integrity, volume of leachate collected and disposal method utilized.
2. *Record Quarterly*; pumping system operational check.
3. *Record Annually*; leachate collection and removal system testing as required by CCR Title 27,

Section 20340 (d), reporting the results as part of the Annual Summary Report required by Part IV.B., below.

Additionally the Discharger shall inspect all drainage control systems following each storm and record the following information:

1. Whether storm storage basins and drainage ditches contain liquids.
2. Any apparent seepage from storage basins.
3. General conditions of facilities and liners.
4. Steps taken to correct any problems found during inspection and when taken.

D. RAINFALL DATA

The Discharger shall record the following information:

1. Total precipitation during the Monitoring Period;
2. Precipitation during the most intense twenty-four hour interval of the Monitoring Period.
3. Return rating of most intense storm [25 year, 100 year, and so on].

E. WATER MONITORING

The Discharger shall monitor water bearing media in accordance with the following schedule. Sampling, analyses, and reporting shall follow Parts II, III, and IV of this Monitoring and Reporting Program. The Discharger shall insure enough samples are taken, at each monitoring point, to qualify for the most appropriate statistical analysis method outlined under Part III of this Monitoring and Reporting Program.

1. *Monitoring Points and Background Monitoring Points*: The Discharger shall sample the following Monitoring Points and Background Monitoring Points, as shown in **Figure 1**, in accordance with the schedule outlined below in Table 1.

2. *Monitoring Frequency:* Beginning August 21, 2003, monitoring of each monitored medium, all Monitoring Points and all Background Monitoring Points, shall be carried out at least once each Monitoring Period. The monitoring frequency for each Monitoring Point is shown in Table 1, below. The Monitoring Period for Constituents of Concern is every five years or anytime a release is discovered. Therefore, the next scheduled COC monitoring event shall occur during **2006** and every five years thereafter.

Table 1
Detection and Corrective Action Monitoring

UNIT	POSITION	SAMPLE LOCATION[2]	MONITORING PROGRAM		MONITORING FREQUENCY
			Detection	Corrective Action	
Alluvium	Upgradient	W-1SR, W-2SR		X	Yearly
	POC[1]	W-3S		X	Semi-annually

UNIT	POSITION	SAMPLE LOCATION[2]	MONITORING PROGRAM		MONITORING FREQUENCY
			Detection	Corrective Action	
Marine Terrace	POC	W-4T		X	Semi-annually
	POC	W-12T[2]		X	Quarterly
Santa Cruz Mudstone	Upgradient	W-1DR, W- 11D, W-8D		X	Yearly
	POC	W-4S, W-9D, W-10D[2]		X	Semi-annually
	POC	W-12D[2], W-13D, W-14D, W-15D[2]		X	Quarterly
Santa Margarita Sandstone	Upgradient	W-2DR, W-7D			Yearly
	POC	W-3DR		X	Semi-annually
Landfill Gas	POC	W-1G, W-2G, W-3G, W-4G, W-7G, W-8G, W-11G,		X	Quarterly[3]
	POC	W-4G, W-14G, W-15G, W-17G, W-18G		X	Monthly[4]
Leachate	System	RP-1	X		Yearly
Surface Water	Upstream	US-1, US-2	X		Quarterly
	Downstream	DS-1,	X		Quarterly

1. Point of Compliance.
2. Groundwater elevations shall be monitored quarterly. Wells W-10D, W-12D, W-12T and W-15D shall only be monitored for groundwater elevations.
3. If methane measurements equal or exceed three percent then a gas sample will be collected from the monitoring probe.
4. Corrective action monitoring probe. A gas sample will be collected from each monitoring probe that equals or exceeds three percent methane.

Table 2
Media Monitoring Points

MONITORING POINT	MEDIA MONITORED
W-2SR, W-3S, W-4T, W-12T, W-1DR, W- 11D, W-8D, W-4S, W-9D, W-10D, W-12D, W-13D, W-14D, W-15D, W-2DR, W-7D, W-3DR, W-1SR	Groundwater
W-1G, W-2G, W-3G, W-4G, W-7G, W-8G, W-11G, W-4G, W-14G, W-15G, W-17G, W-18G	Landfill Gas
US-1, US-2, DS-1	Surface Water
RP-1	Leachate

3. *Monitoring Parameters*
   a. Groundwater: The Discharger shall analyze all samples from all groundwater Monitoring Points[4] for the following monitoring parameters:

Table 3
Groundwater Monitoring Parameters

PARAMETER	USEPA METHOD[2]	UNITS
Laboratory Parameters:		
Manganese	6010b	mg/l
Total Dissolved Solids (TDS)	160.1	mg/l
Nitrate (as Nitrogen)	9200	mg/l
Sodium	6010b	mg/l
Volatile Organic Compounds[1]	8260b	µg/l
Sulfate	9038	mg/l
Chloride	9252	mg/l
Chromium (Total)	6010b	µg/l
Chromium VI[3]	7199	µg/l
Stabilized Field Parameters:		
pH	Field	pH Unit
Dissolved Oxygen	Field	mg/l
Electronic Conductivity	Field	µmhos/cm
Turbidity	Field	NTU
Temperature	Field	°F

1. The VOC Monitoring Parameter includes all Volatile Organic Compounds detectable using USEPA Method 8260,

including at least all 47 organic constituents listed in Appendix I to 40 CFR, 258 (Subtitle D), fuel oxygenates (i.e. MtBE), 1,4 dioxane, and all unidentified peaks. Defined in Part V.

2. Use the USEPA method listed or most current approved USEPA method.
3. Use most appropriate method for determining Chromium VI concentrations with the lowest practicable detection limits.
4. Wells W-10D, W-12D, W-12T and W-15D shall be tested for groundwater elevations only.

Statistical and non-statistical assessment methods, as required by Part III, below, shall be used to evaluate the sampling results.

b. *Surface water monitoring*: The Discharger shall analyze all samples from all surface water monitoring points for the following monitoring parameters:

Table 4
Surface Water Monitoring Parameters

PARAMETER	USEPA METHOD[1]	UNITS
Chloride	9252	mg/l
Sulfate	9038	mg/l
Sulfide	9215	mg/l
Nitrate (as Nitrogen)	9200	mg/l
TDS	160.1	mg/l
Iron	6010b	mg/l
Chromium (Total)	6010b	µg/l
Chromium VI	7199	µg/l
Lead	6010b	µg/l
Manganese	6010b	mg/l
Sodium	6010b	mg/l
Total Oil and Grease	9070	mg/l
Field Parameters		
pH	Field	pH Unit
Dissolved Oxygen	Field	mg/l
Electronic Conductivity	Field	µmhos/cm
Turbidity	Field	NTU
Temperature	Field	°F

1. Use the USEPA method listed or most current approved USEPA method.

c. *Soil Pore Gas Monitoring:* The Discharger shall monitor the soil pore gas and unsaturated zone gas at all monitoring locations for the following monitoring parameters:

Table 5
Gas Monitoring Parameters

PARAMETER	USEPA METHOD[2]	UNITS
VOC	TO-14b	ppbv
Methane	PID or FID	ppbv

4. *Groundwater Flow Rate and Direction:* For each monitored groundwater body, the Discharger shall measure the water level in each well before purging, at least quarterly, including the times of expected highest and lowest elevations of the water level, and determine the presence of vertical gradients, and groundwater flow rate and direction for the respective groundwater body. Groundwater elevations for all wells in a given groundwater body shall be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction (40 CFR §258.53(d)). The Discharger shall compare observed groundwater characteristics with those from previous determinations, noting the appearance of any trends and of any indications that a change in the hydrogeologic conditions beneath the site has occurred. This information shall be reported in the Detection Monitoring Report required under Part IV (A) of this Monitoring and Reporting Program.

5. *Constituents of Concern (COC:* All COCs are included in Appendix II to 40 CFR, Part 258. Monitoring for COCs shall encompass all listed Constituents of Concern and all Monitoring Parameters. The regularly scheduled sampling of monitoring wells for monitoring parameters listed in Table 3 may be combined with a COC monitoring event.

Table 6
Constituents of Concern

CONSTITUENTS	METHOD[1]	UNITS
Antimony, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Nickel, Silver, Tin, Vanadium, Zinc	6010b	mg/l
Arsenic	7060	mg/l
Cyanide	9010	mg/l
Lead	7421	mg/l
Mercury	7470	mg/l
Selenium	7740	mg/l
Sulfide	9030	mg/l
Thallium	7841	mg/l
Chlorophenoxy Herbicides	8150	µg/l
Organochlorine Pesticides	8081	µg/l
PCBs	8082	µg/l

CONSTITUENTS	METHOD [1]	UNITS
Organophosphorus Pesticides	8141	µg/l
Semi-Volatile Organic Compounds	8270	µg/l
Volatile Organic Compounds, Appendix II*	8260b	µg/l

[1] The Discharger shall analyze for all constituents using the USEPA analytical methods indicated above or the most recently approved SW-846 USEPA method or other equivalent USEPA method.
* Includes fuel oxygenates, 1-4 dioxane

6. *Thirty-Day Sample Procurement Limitation:* For any given monitored medium, the samples taken from all Monitoring Points and Background Monitoring Points to satisfy the data analysis requirements for a given Monitoring Period shall all be taken within a span not exceeding 30 days, and shall be taken in a manner that insures sample independence to the greatest extent feasible [CCR Title 27, Section 20415(e)(12)(B].

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 US EPA Methods (USEPA publication "SW-846"), and in accordance with an approved sampling and analysis plan. Water and waste analysis shall be performed by a State of California certified laboratory. Specific methods of analysis must be identified. For each laboratory were samples are analyzed, the laboratory director shall supervise the laboratory analytical work and shall sign all reports submitted to the Regional Board. The Discharger is responsible to ensure that the laboratory maintains and calibrates all monitoring instruments and equipment to ensure accuracy and precision of measurements. In addition, the Discharger is responsible for seeing that the laboratory analysis of all samples from Monitoring Points and Background 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 SW-846 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 (PQL)) shall be reported as such.

3. Method Detection Limits and Practical Quantitation Limits 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 other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-

derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included. The Method Detection Limit shall always be calculated such that it represents a concentration associated with a 99% reliability of a non-zero result.

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. The method, equipment, and analytical detection limits.
   b. The recovery rates, an explanation for any recovery rate that is outside the USEPA-specified recovery rate.
   c. The results of equipment and method blanks.
   d. The results of spiked and surrogate samples.
   e. The frequency of quality control analysis.
   f. The name and qualifications of the person(s) performing the analyses.

5. Upon receiving written approval from the Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Monitoring Period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Regional Board Staff.

6. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte. When unknown peaks are encountered, second column or second method confirmation procedures shall be performed to attempt to identify and more accurately quantify the unknown analyte.

7. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.

B. CONCENTRATION LIMITS

1. For the purpose of establishing Concentration Limits for COC and Monitoring Parameters detected in greater than ten percent of a medium's historical samples the Discharger shall:

   a. Statistically analyze existing monitoring data (Part III), and propose, to the Executive Officer, statistically derived Concentration Limits for each Constituent of Concern and each Monitoring Parameter at each Monitoring Point for which sufficient data exists.
   b. In cases where sufficient data for statistically determining Concentration Limits does not exist the Discharger shall collect samples and analyze for Monitoring Parameter(s) which require additional data. Once sufficient data is 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 Detection Monitoring Points, including any added by this Order, until sufficient data is available to establish a proposed Concentration Limit for all COC and Monitoring Parameters. Once sufficient data is 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. The Discharger shall review Concentration limits annually. The past years data will be reviewed for application to revision of concentration limits. When appropriate, new concentration limits shall be proposed

C. INITIAL BACKGROUND DETERMINATION

For the purpose of establishing an initial pool of background data for each Constituent of Concern and each Monitoring Parameter at each Background Monitoring Point in each monitored medium the Discharger shall:

1. Collect at least one sample quarterly for at least one year from each Background Monitoring Point in each monitored medium and analyze for all newly-added Constituent(s) of Concern and Monitoring Parameter(s), including any added by the adoption of this Order.
2. Sample new Background Monitoring Points, including any added by this Order, at least quarterly for at least one year, analyzing for all Constituents of Concern and Monitoring Parameters.

Once this reference set of background data is collected, the Discharger shall include it as a separate identified item in the ensuing monitoring report submittal.

D. RECORDS TO BE MAINTAINED

Written records 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 of the Monitoring Point or Background Monitoring Point from which it was taken, along with the identity of the individual who obtained the sample.
2. Date and time of sampling.
3. Date and time that analyses were started and completed, and the name of the personnel performing each analysis.
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 the Method Detection Limit and Practical Quantitation Limit for each analysis.

PART III: STATISTICAL AND NON-STATISTICAL ANALYSIS OF DATA

A. METHOD DETERMINATION

The Discharger subject to this section shall use the most appropriate method(s) to determine if there has been a release from the Unit. For any given data set, the Discharger shall first decide if statistical analysis is possible, by reference to the relative frequency with which the constituent is detected in background samples. Those 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 METHODS

For Detection and Corrective Action 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 all constituents that are detected in less than 10% of applicable background samples. This method involves a two-step process:

1. From all constituents to which the method applies, compile a list of those constituents which exceed their respective Method Detection Limit (Method Detection Limit) in the sample of a given Monitoring Point.
2. Evaluate whether the listed constituents meet either of two possible triggering conditions. Either, the list contains two or more constituents, or contains one constituent that equals or exceeds its Practical Quantitation Limit. If either condition is met the Discharger shall conclude a release is tentatively indicated and shall immediately implement the appropriate retest procedure under Part III.D.

D. DISCRETE RETEST

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-test analytical results 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.
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 or 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.

PART IV: REPORTING

A. GENERAL

A written Monitoring Report shall be submitted semi-annually by January 31 and July 31 of each year. Monitoring Reports will be submitted in an electronic format, with text, tables, figures, laboratory analytical data (MS Excel Format), Graphs, and appendices placed on a **CDROM** in PDF or Microsoft Word format. Accompanying the electronic version of the report will be a hard copy transmittal letter, with signatures of preparers and submitters (in accordance with requirements stated in Waste Discharge Requirements Order No. 94-62), along with an executive summary of the report text. The Monitoring Report shall address all facets of the Landfill's monitoring. Reports shall include, but should not be limited to, the following:

1. *Letter of Transmittal*: A letter transmitting the essential points shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the 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 above, or by his/her duly authorized representative, if such a 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.

2. *Compliance Evaluation Summary*: The summary shall contain at least:

    a. For each monitored groundwater body, a description and graphical presentation of the velocity and direction of groundwater flow under/around the Unit, based upon water level elevations taken during the collection of the water quality data submitted in the report.
    b. For each monitoring well addressed by the report: a description of the method and time of water level measurement, the type of pump used for purging and the placement of the pump in the well, and the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of the field equipment, results of the pH, temperature, conductivity, and turbidity testing, the well recovery time, and the method of disposing of the purge water).
    c. For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump, or other 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 type of containers and preservatives used; the date and time of sampling; the name and qualifications of the person actually taking the samples; description of any anomalies).

3. *Map*: A map or aerial photograph showing the locations of observation stations, Monitoring Points, and Background Monitoring Points. Groundwater contours shall be indicated to the greatest degree of accuracy possible.

4. *Laboratory Results*: Laboratory statements, concerning the results of all analyses, demonstrating compliance with Part II of this Monitoring and Reporting Program. Additionally results of all sampling and analyses performed at the site, out side the requirements of this Monitoring and Reporting Program, shall be reported and summarized.

5. *Graphical Presentation of Analytical Data*: For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within the previous two calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point or Background Monitoring Point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data.

6. *Standard Observations*: A summary and certification of completion of all Standard Observations (Part V.I.) for the Unit, for the perimeter of the Unit, and for the Receiving Waters.

B. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual report to the Board covering the previous monitoring year. The annual Monitoring Period ends December 31. This report may be combined with the Second Semi-annual Monitoring Report of the year and shall be submitted no later than January 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, constituent mass removal totals from landfill gas and leachate, corrective action system discussion, 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. *Graphical Presentation of Analytical Data*: For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples collected. Each graph shall plot the concentration of one or more constituents over time for a given Monitoring Point or Background Monitoring Point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data.

4. *Analytical Data*: All monitoring analytical data obtained during the previous year, presented in tabular form as well as on CDROM, in MS-EXCEL format or in another file format acceptable to the Executive Officer. Additionally, complete data histories of each well shall be submitted on CDROM.

5. *Leachate Results*: Results of annual leachate collection and leachate detection system testing, as required by Part I.C. Where leachate is used for dust control, testing that shows the leachate is non-hazardous shall be submitted annually.

6. *Map(s)*: A map showing the areas where filling has taken place during the previous calendar year. Indicate areas, if any, in which filling has been completed or intermediate cover has been placed.

C. CONTINGENCY RESPONSE

1. *Leachate Seep*: The Discharger shall, within 24 hours report by telephone concerning the discovery any 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. Map - A map showing the location(s) of seepage.
   b. Flow rate - An estimate of the flow rate.

c. Description - A description of the nature of the discharge (e.g., all pertinent observations and analyses).
d. Location – Location of sample(s) collected for laboratory analysis, as appropriate.
e. Corrective measures - approved (or proposed for consideration) by the Regional Water Board Executive Officer.

2. *Response to an Initial Indication of a Groundwater Release:* Should the initial statistical or non-statistical comparison (under Part III. A. or B. of this Monitoring and Reporting Program) indicate that a release is tentatively identified, the Discharger shall implement the Requirements of CCR Title 27, Section 20420 (i)(j)(1) thru (m) as appropriate.

3. *Groundwater Release Beyond Facility Boundary*: Any time the Discharger concludes (or the Regional Board Executive Officer directs the Discharger to conclude) that a release from the Unit has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons).

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 all Affected Persons, including any persons newly affected by a change in the boundary of the release, within **14 days** of concluding there has been any material change in the nature or extent of the release.
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 Regional Board 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.

D. RESPONSE TO VOC DETECTION IN BACKGROUND

1. Any time the laboratory analysis of a sample from a Background Monitoring Point shows either (1) two or more VOCs above their respective Method Detection Limit, or (2) one VOC above its respective Practical Quantitation Limit, the Discharger shall implement the Requirements of CCR Title 27, Section 20420 (i)(j)(1) thru (m) as appropriate.

2. If the Executive Officer determines, after reviewing the report submitted under Part IV.D.1., that the detected VOC(s) most likely originated from the Unit, the Discharger shall assume that a release has been detected and shall immediately begin carrying out the requirements of Part IV.C.3.

PART V: DEFINITION OF TERMS

A. AFFECTED PERSONS

All individuals who either own or reside upon the land that directly overlies any part of that portion of a gas- or liquid-phase release that has migrated beyond the facility boundary.

B. CONSTITUENTS OF CONCERN (COC)

Those constituents which are likely to be in the waste in the Unit or which are likely to be derived from waste constituents, in the event of a release. The Constituents of Concern for this Unit are listed in Part I.E.5.

C. METHOD DETECTION LIMIT

The lowest concentration at which a given laboratory, using a given analytical method, to detect a given constituent, (in spite of any Matrix Effect) can regularly differentiate, with 99% reliability, between a sample which contains the constituent and one which does not.

D. PRACTICAL QUANTITATION LIMIT

The lowest constituent concentration a given laboratory, using a given analytical method, to determine the concentration of a given constituent (in spite of any Matrix Effect), can regularly quantify within specified limits of precision acceptable to the Regional Board Executive Officer.

E. MATRIX EFFECT

Any increase in the Method Detection Limit 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.

F. MONITORED MEDIA

Those water bearing media that are monitored pursuant to this Monitoring and Reporting Program. The Monitored Media may include: (1) groundwater in the uppermost aquifer, in any other portion of the zone of saturation (§2601 of Chapter 15) in which it would be reasonable to anticipate that waste constituents migrating from the Unit could be detected, and in any perched zones underlying the Unit, (2) any bodies of surface water that could be measurably affected by a release, and (3) soil pore liquid beneath and/or adjacent to the Unit.

G. MONITORING PARAMETERS

A short list of constituents and parameters used for the majority of monitoring activity. The Monitoring Parameters for this Unit are listed in Part I.E.3. of this Monitoring and Reporting Program.

H. MONITORING PERIOD

The database duration separating the submittal of a monitoring report and the time of the next report submittal. The Monitoring Period for analysis of all Constituents of Concern s five years; the Monitoring Period for the Monitoring Parameters is quarterly]. Quarterly monitoring will be performed within the following time frames: [Winter (January 1 to March 31), Spring (April 1 to June 30), Summer (July 1 to September 30), Fall (October 1 to December 31)]. The due date for any given report will be 30 days after the end of its Monitoring Period, unless otherwise stated.

I. STANDARD OBSERVATIONS

1. *For Receiving Waters*:

    a. Floating and suspended materials of waste origin; presence or absence, source, and size of affected area.
    b. Discoloration and turbidity; description of color, source, and size of affected area.
    c. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.

d. Evidence of beneficial use; presence of water-associated wildlife.
e. Flow rate to the receiving water.

2. *Along the perimeter of the Unit*:

a. Evidence of liquid leaving or entering the Unit, estimated size of affected area, and flow rate (show affected area on map).
b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
c. Evidence of erosion and/or of exposed refuse.
d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

3. *For the Unit*:

a. Evidence of ponded water at any point on the waste management facility (show on map).
b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
c. Evidence of erosion and/or of daylighted refuse.
e. Compliance with Storm Water Pollution Prevention Plan, insuring that the terms of the general permit are properly implemented.
f. Integrity of all drainage systems.

J. RECEIVING WATERS

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

K. VOLATILE ORGANICS COMPOSITE MONITORING PARAMETER FOR WATER (VOC)

VOC – A composite parameter that encompasses a variety of VOCs. The constituents addressed by the VOC Composite Monitoring Parameter include all Appendix I to 40 CFR 258, and all unidentified peaks.

All reports required in this MRP are required pursuant to California Water Code Section 13267. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Resources Control Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

ORDERED BY: _____
Executive Officer

DATE: _____

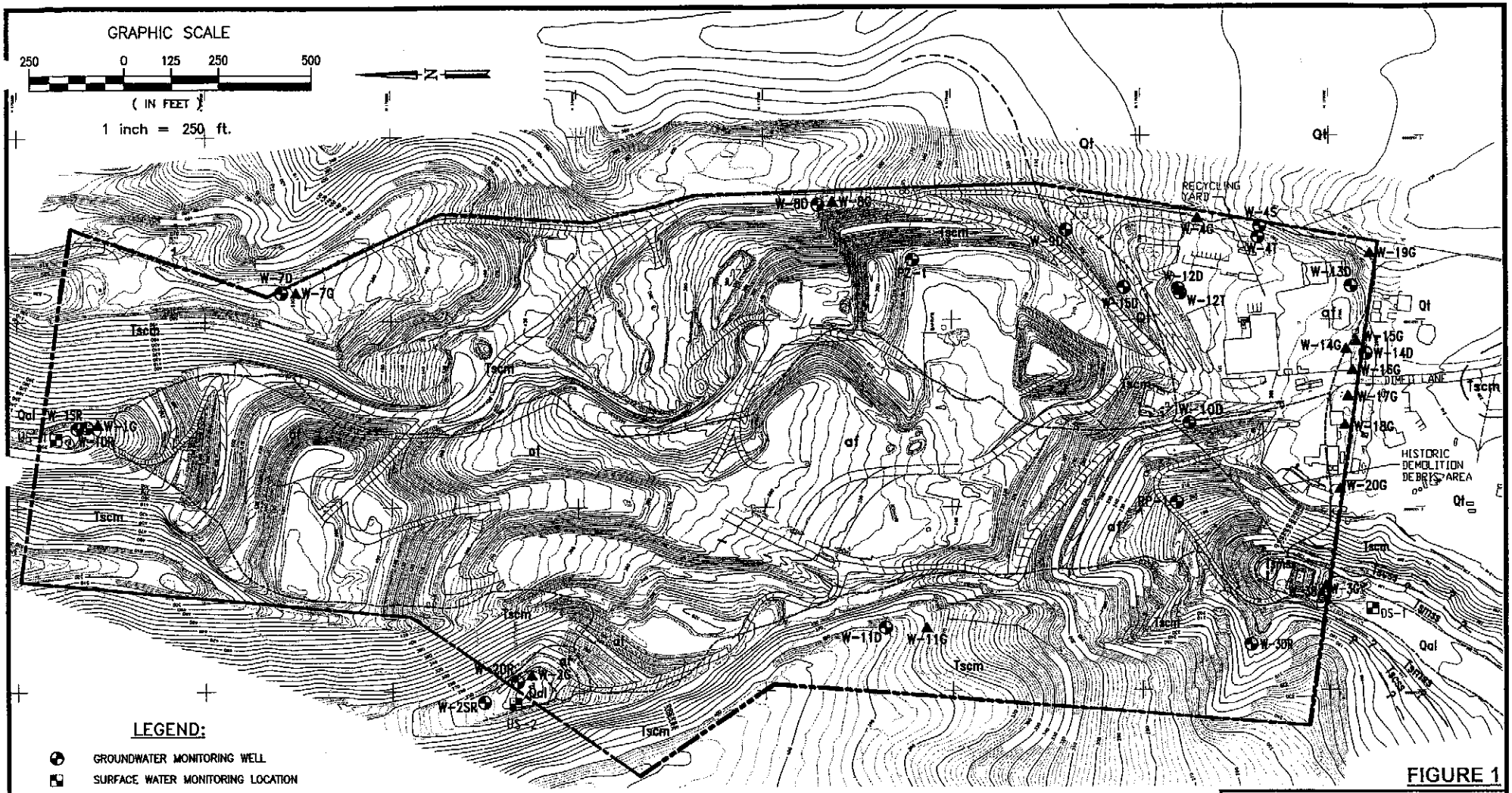

FIGURE 1

GEOLOGIC MAP AND MONITORING STATION LOCATION PLAN

DETECTION MONITORING PROGRAM
SANTA CRUZ RESOURCE RECOVERY FACILITY
SANTA CRUZ, CALIFORNIA

GeoLogic Associates
Geologists, Hydrogeologists, and Engineers

DRAWN BY:	DATE:	JOB NO.
VL	JANUARY 2006	2005-157