CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0046

WASTE DISCHARGE REQUIREMENTS
FOR
FORWARD INC.
ALLIED WASTE INDUSTRIES, INC.
FOR
POST-CLOSURE MAINTENANCE OF
FRENCH CAMP MUNICIPAL SOLID WASTE LANDFILL
SAN JOAQUIN COUNTY

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

1. Forward Inc. a subsidiary of Allied Waste Industries Inc., (hereafter jointly referred to as Discharger) owns the French Camp Landfill which is a closed municipal solid waste landfill about one mile south of downtown Stockton, in Section 11, T1N, R6E, MDB&M, as shown in Attachment A, which is incorporated herein and made part of this Order by reference.

2. The facility is an unlined landfill on a 72-acre site, as shown in Attachment B, which is incorporated herein and made part of this Order by reference. The facility is comprised of Assessor's Parcel Numbers (APN) 163-070-13 and 163-070-14.

3. The Discharger closed the landfill according to California Code of Regulations (CCR) Title 27 (hereafter Title 27).

4. The landfill was initally owned and operated by the City of Stockton. Operations began in 1938 as a burn dump accepting Groups 2 and 3 (old classification) wastes. After 1957, the facility no longer accepted Group 2 wastes and accepted only demolition and garden wastes. Group 2 wastes consist of or contain chemically or biologically decomposable material which does not include toxic substances nor those capable of significantly impairing the quality of usable waters. Group 3 wastes consist entirely of non-water soluble non-decomposable inert solids.

5. On 28 October 1994, the Regional Water Board issued Waste Discharge Requirements (WDRs) Order No. 94-304, in which the facility was classified as a limited Class III waste disposal site for the discharge of residential street sweepings and garden wastes, park trimmings, clean fill dirt, concrete free of reinforcing steel, asphaltic concrete, and wood wastes. That Order classified the Unit as a Class III landfill in accordance with Title 27.

6. In 1999, the facility was acquired by Forward Inc. from the City of Stockton as part of a deal involving multiple properties. The facility stopped accepting waste in the second quarter of 1999. In October 2001, Forward Inc. submitted an initial Closure Plan and in February 2004 and in February 2006 final amendments to complete the plan were submitted. On 15 October 2004, the Regional Water Board adopted WDRs Order No. R5-2004-0159 to regulate closure of the landfill.

7. In September 2006 closure construction of the landfill was completed and on 14 November 2006 the Final Construction Quality Assurance Report was submitted. These WDRs prescribe requirements for post-closure maintenance and monitoring at the French Camp facility.

SITE DESCRIPTION

8. Soils immediately underlying the landfill are lenticular deposits of clay, silt and sand with minor gravel. A hydraulic conductivity of 0.014 cm/sec has been commonly used for soils at this site. However, the source of this value is uncertain, there is no record of aquifer testing to measure the hydraulic conductivity.

9. The peak bedrock horizontal acceleration (corresponding to the maximum credible acceleration) for the French Camp Landfill is estimated to be 0.20 g., according to the USGS seismic maps (Frankel et al. 1997).

10. Land uses within 1,000 feet of the facility are residential, recreation, and agricultural.

11. The facility receives an average of 14 inches of precipitation per year as reported by the National Weather Service. The mean pan evaporation is 101 inches per year as measured at the Tracy Pumping Plant.

12. The 100-year, 24-hour precipitation event is estimated to be 3.8 inches, based on Department of Water Resources' bulletin entitled *Rainfall Depth-Duration-Frequency for California*, revised November 1982, updated August 1986.

13. The waste management facility is within a 100-year flood plain. The landfill is located on a triangular piece of low lying ground at the intersection of French Camp Slough and Walker Slough. The Walker Slough levee and the French Camp Slough levee form the north and south landfill boundaries respectively.

14. Some waste is located outside the landfill footprint beyond the levees in French Camp and Walker Sloughs. Stream sediment samples in the affected areas indicate that this fugitive waste is not hazardous and has not released significant pollutants into the two sloughs. Test pits and field observations of the levee slopes

indicate that the waste is widespread but thinly deposited and likely represents waste that tumbled down the levee slopes during operation of the landfill. Complete removal of this waste would involve extensive disturbance of dense riparian vegetation on the margins of the sloughs and lower levee slopes. The Discharger removed those wastes that could be removed without damaging the outer levee slopes or the riparian vegetation cover. To avoid disproportionate disturbance of the mature riparian vegetation, some wastes were left in place outside the landfill footprint.

WASTE AND SITE CLASSIFICATION

15. The landfill accepted nonhazardous solid wastes, which are defined in Title 27 CCR Section 20164. Nonhazardous solid wastes include municipal solid wastes, as referred to in the Code of Federal Regulations, Title 40, Part 258.2.

16. The site characteristics (see Finding No. 13) do not meet the siting criteria for a new Class III landfill contained in Title 27 CCR Sections 20260(a) and (b)(1). As such, the site is not suitable for operating new Units or lateral expansions of existing Units for the discharge and containment of Class III wastes.

SURFACE AND GROUND WATER CONDITIONS

17. The Water Quality Control Plan, Fourth Edition for the Sacramento River Basin and the San Joaquin River Basin (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.

18. Surface drainage is toward French Camp Slough in the Sacramento - San Joaquin Delta Hydrologic Area (544.00) of the San Joaquin River Basin, San Joaquin Hydrologic Basin Planning Area Map, RWQCB, Central Valley Region (1986).

19. The landfill is on the floor of the San Joaquin Valley near the Sacramento - San Joaquin River Delta. The designated beneficial uses of San Joaquin Delta, as specified in the Basin Plan, are municipal and domestic supply, agricultural supply, industrial service, process, and power supply, water contact and non-contact water recreation, warm fresh water habitat, preservation of rare, threatened and endangered species, and groundwater recharge.

20. The first encountered water under the landfill is a perched groundwater zone two to five feet below mean sea level (bmsl). This zone is likely water that percolated through the waste or fill material and now is contained in the fill and waste at the bottom of the landfill footprint. The intermediate zone occurs beneath the perched zone and is usually eight to twelve feet bmsl. However, the intermediate zone

groundwater is unconfined and water levels may fluctuate seasonally as much as seven feet. A deep zone occurs at about 100 feet bmsl and is a significant local source of municipal and industrial water supply.

21. The bottom of the landfill is below the seasonal high groundwater level. Therefore, the groundwater rises into the bottom portion of the waste.

22. The direction of groundwater flow is toward the east. The average groundwater gradient is approximately 0.005 feet per foot. The average groundwater velocity in the intermediate zone is 124 feet per year.

23. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal water supply, agricultural supply, industrial service supply and industrial process supply.

GROUNDWATER MONITORING

24. The groundwater detection monitoring system consists of three intermediate zone background wells (MW -6A, -7A and –7B) and five intermediate zone detection wells (MW-8A -9A, -9B, and 10A). The facility is unlined and there is no vadose zone detection monitoring system.

25. The Discharger's detection monitoring program for groundwater at this Unit satisfies the requirements contained in Title 27.

26. Volatile organic compounds (VOCs) are often detected in a release from a landfill, and are the primary waste constituents detected in groundwater beneath a municipal solid waste landfill. Since volatile organic compounds are not naturally occurring and thus have no background value, they are not amenable to the statistical analysis procedures contained in Title 27 for the determination of a release of wastes from a Unit.

27. Title 27 CCR Sections 20415(e)(8) and (9) provide for the non-statistical evaluation of monitoring data that will provide the best assurance of the earliest possible detection of a release from a Unit in accordance with Title 27 CCR Section 20415(b)(1)(B)2.-4. However, Title 27 CCR does not specify a specific method for non-statistical evaluation of monitoring data.

28. The Regional Water Board may specify a non-statistical data analysis method pursuant to Title 27 CCR Section 20080(a)(1). Section 13360(a)(1) of the California Water Code allows the Regional Water Board to specify requirements to protect underground or surface waters from leakage from a solid waste site, which includes

a method to provide the best assurance of determining the earliest possible detection of a release.

29. In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a Unit, this Order specifies a non-statistical method for the evaluation of monitoring data.

30. The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a release of non-naturally occurring waste constituents from a Unit. The presence of two non-naturally occurring waste constituents above their respective method detection limit (MDL), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL), indicates that a release of waste from a Unit has occurred. Following an indication of a release, verification testing will be conducted to determine whether there has been a release from the Unit, or there is a source of the detected constituents other than the landfill, or the detection was a false detection. Although the detection of one non-naturally occurring waste constituent above its MDL is sufficient to provide for the earliest possible detection of a release, the detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.

GROUNDWATER DEGRADATION

31. Monitoring data collected since 1998 indicates background groundwater quality has an electrical conductivity (EC) ranging between 884 and 1,300 micromhos/cm, with total dissolved solids (TDS) ranging between 450 and 660 mg/l. Downgradient groundwater (at MW-9A and MW-10A) often contains elevated concentrations of TDS, chloride, sulfate and nitrate. The Stockton area has a history of salt water intrusion due to over pumping that may have contributed to the problem. Staff anticipates that closing the landfill will mitigate any contribution to groundwater impacts from the landfill.

32. One downgradient detection monitoring well (MW-9B) has a history of intermittent low-level detections of the VOC 1,2 dichloroethane. Initial result from installing the cover may be an increase of VOC gases in the landfill, because of the reduced venting of these gases to the air. This may cause increases in VOCs in groundwater. Post-closure installation of a landfill gas extraction system is required in these WDRs if gases increase significantly in the landfill or increases are detected in groundwater. The decision to install a landfill gas extraction system will depend on groundwater and soil pore gas monitoring results.

CLOSURE CONSTRUCTION

33. The facility was closed in September 2006 with the installation of a final landfill cover. The cover consists of (from bottom to top): a two-foot thick soil foundation layer; overlain by a one-foot thick compacted clay low permeability barrier layer with a maximum hydraulic conductivity of 1×10^{-6} cm/sec; and a one-foot thick protective/vegetative soil layer. The final cover complies with the cover requirements in Title 27.

34. Stormwater is collected in a system of lined drainage ditches and is discharged to a sedimentation pond located at the southeast corner of the landfill.

CEQA AND OTHER CONSIDERATIONS

35. The Integrated Waste Management Board certified the final negative declaration for the facility on 13 August 2004. The Regional Water Board considered the negative declaration and incorporated mitigation measures from the negative declaration into these waste discharge requirements designed to prevent potentially significant impacts to design facilities and to water quality.

36. This Order implements:

    a. The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition;

    b. The prescriptive standards and performance goals of Chapters 1 through 7, Subdivision 1, Division 2, Title 27, of the California Code of Regulations, effective 18 July 1997, and subsequent revisions;

    c. The prescriptive standards and performance criteria of RCRA Subtitle D, Part 258; and

    d. State Water Resources Control Board Resolution No. 93-62, *Policy for Regulation of Discharges of Municipal Solid Waste*, adopted 17 June 1993.

37. Section 13267(b) of California Water Code provides that: *"In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board*

requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports." The monitoring and reporting program required by this Order is necessary to assure compliance with these waste discharge requirements. The Discharger owns this facility and is responsible for post-closure maintenance and monitoring.

PROCEDURAL REQUIREMENTS

38. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.

39. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

40. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

41. Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review the action in accordance with Sections 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812, within 30 days of the date of issuance of this Order. Copies of the laws and regulations applicable to the filing of a petition are available on the Internet at http://www.waterboards.ca.gov/water_laws/index.html and will be provided on request.

IT IS HEREBY ORDERED, pursuant to Sections 13263 and 13267 of the California Water Code, that Order No. R5-2004-0159 is rescinded, and that Forward Inc. and Allied Waste Inc., their agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The French Camp Landfill is closed, and therefore the discharge of any additional wastes to the French Camp Landfill is prohibited.

2. The discharge of 'hazardous waste' or 'designated waste' is prohibited. For the purposes of this Order, the term 'hazardous waste' is as defined in Title 23,

California Code of Regulations, Section 2510 et seq., and 'designated waste' is as defined in Title 27.

3. The discharge of wastes outside of a Unit or portions of a Unit specifically designed for their containment is prohibited, except for existing waste as described in Finding 14.

4. Future activities at the French Camp Landfill shall not cause the release of pollutants, or waste constituents, in a manner which could cause a condition of nuisance, degradation, contamination, or pollution of groundwater to occur, as indicated by the most appropriate statistical or nonstatistical data analysis method and retest method listed in this Order, the Monitoring and Reporting Program, or the Standard Provisions and Reporting Requirements.

5. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or groundwater is prohibited.

6. Future activities shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the Unit if such waste constituents could migrate to waters of the State — in either the liquid or the gaseous phase — and cause a condition of nuisance, degradation, contamination, or pollution.

B. DISCHARGE SPECIFICATIONS

1. The further discharge of any wastes to this facility is prohibited.

2. All wastes shall remain within the designated disposal area at all times.

C. FACILITY SPECIFICATIONS

1. The Discharger shall, in a timely manner, remove and relocate any wastes discharged at this facility in violation of this Order.

2. The Discharger shall immediately notify the Regional Water Board of any flooding, unpermitted discharge of waste off-site, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.

3. Water used for facility maintenance shall be limited to the minimum amount necessary for dust control.

4. The Discharger shall maintain in good working order any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.

5. Methane and other landfill gases shall be adequately vented, removed from the Unit, or otherwise controlled to prevent the danger of adverse health effects, nuisance conditions, or the impairment of the beneficial uses of surface water or groundwater due to migration through the unsaturated zone.

6. Landfill gases shall be monitored quarterly for one year starting the First Quarter 2007 and semi-annually thereafter in compliance with Monitoring and Reporting Program No. R5-2007-0046. Beginning the second year (ie. the first semi-annual event of 2008), landfill gas monitoring shall be conducted with a methane field screening instrument. If field screening detects greater than 2.5% methane, then a sample shall be collected and submitted for analysis of VOCs. Landfill gas monitoring results and an evaluation of the results shall be included as part of the regular facility monitoring reports. Should VOC concentrations in gas be assessed as significant (see Specification 7. below), an evaluation-monitoring report must be completed. If the evaluation-monitoring report concludes that gas concentrations pose a threat to groundwater or surface water quality, then phased construction of a Gas Collection and Control System must be implemented.

7. Significant landfill gas detections are defined as concentrations of any VOC in landfill gas such that the Henry's Law predicted fractionation in water exceeds the detection limit.

8. Surface drainage within the waste management facility shall either be contained on-site or be discharged in accordance with applicable storm water regulations.

9. The Discharger shall maintain a *Storm Water Pollution Prevention Plan* and *Monitoring Program and Reporting Requirements* in accordance with State Water Resources Control Board Order No. 97-03-DWQ, or retain all storm water on-site.

10. Prior to construction, the Discharger shall submit design plans and specifications for any on-site construction or major repairs to landfill structures.

11. The Discharger shall perform periodic monitoring of site security systems, final soil cover, drainage system, vegetative cover, final grading, groundwater monitoring system and landfill soil-pore gas monitoring system in compliance with Monitoring and Reporting Program No. R5-2007-0046.

12. The Discharger shall perform periodic monitoring to identify and address cover problems, including at least:

    a. Areas of the vegetative cover requiring replanting;

    b. Eroded portions of the erosion-resistant layer requiring regrading, repair, or increased erosion resistance;

    c. Eroded portions of the low-hydraulic conductivity layer needing repair or replacement;

    d. Areas lacking free drainage;

    e. Areas damaged by equipment operation; and

    f. Localized areas identified in the iso-settlement survey as having sustained repeated or severe differential settlement.

13. The Discharger shall repair forthwith any breach or other cover problem discovered by periodic monitoring.

14. Annually, prior to 1 October, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding and to prevent surface drainage from contacting or percolating through wastes.

15. The Discharger shall maintain the vegetative cover, including fertilization, elimination of species whose roots would be expected to damage the low conductivity layer (trees and deep rooted shrubs) , and replanting.

16. At least every five years (beginning in 2011) the Discharger shall produce and submit to the Regional Water Board an iso-settlement map accurately depicting the estimated total change in elevation of each portion of the final cover.

17. Prior to conducting any periodic grading operations on the closed landfill, the Discharger shall note on a map of the landfill the approximate location and outline of any areas where differential settlement is visually obvious.

18. Construction shall precede only after all applicable construction quality assurance plans have been approved.

19. Following the completion of any landfill construction, the final documentation required in §20324(d)(1)(C) of Title 27 shall be submitted. The report shall be certified by a registered civil engineer or a certified engineering geologist. It shall contain sufficient information and test results to verify that construction was in accordance with the design plans and specifications, and with the prescriptive standards and performance goals of Title 27.

20. A third party independent of both the Discharger and the construction contractor shall oversee the performance of all of the construction quality assurance monitoring and testing.

D. DETECTION MONITORING SPECIFICATIONS

1. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone, in accordance with Monitoring and Reporting Program No. R5-2007-0046.

2. The Discharger shall provide Regional Water Board staff a minimum of **one week** notification prior to commencing any field activities related to the installation, repair, or abandonment of monitoring devices, and a minimum **48 hour** notification prior to the collection of samples associated with a detection monitoring program, evaluation monitoring program, or corrective action program.

3. The Discharger shall comply with the Water Quality Protection Standard as specified in Monitoring and Reporting Program No. R5-2007-0046, and the Standard Provisions and Reporting Requirements, dated April 2000.

4. The Water Quality Protection Standard for organic compounds which are not naturally occurring and not detected in background groundwater samples shall be taken as the detection limit of the analytical method used (i.e., US-EPA methods 8260 and 8270). The repeated detection of one or more non-naturally occurring organic compounds in samples above the Water Quality Protection Standard from detection monitoring wells is evidence of a release from the Unit.

5. The concentrations of the constituents of concern in waters passing the Point of Compliance shall not exceed the concentration limits established pursuant to Monitoring and Reporting Program No. R5-2007-0046.

6. For each monitoring event, the Discharger shall determine whether the landfill is in compliance with the Water Quality Protection Standard using procedures specified in Monitoring and Reporting Program No. R5-2007-0046 and Title 27 CCR Section 20415(e).

7. 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 reporting period shall all be taken **within a span not to exceed 30 days**, unless the Executive Officer approves a longer time period, and shall be taken in a manner that ensures sample independence to the greatest extent feasible. Specific methods of collection and analysis must be identified. Sample collection, storage, and analysis shall be performed according to the most recent version of USEPA Methods, such as the latest editions, as applicable, of: (1) Methods for the Analysis of Organics in Water and Wastewater (USEPA 600 Series), (2) Test Methods for Evaluating Solid Waste (SW-846, latest edition), and (3) Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and in accordance with the approved Sample Collection and Analysis Plan.

8. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology shall be submitted for review and approval by the Executive Officer prior to use.

9. The **methods of analysis and the detection limits** used must be appropriate for the expected concentrations. For the monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., "trace" or "ND") in data from background monitoring points for that medium, the analytical method having the lowest method detection limit (MDL) shall be selected from among those methods which would provide valid results in light of any matrix effects or interferences.

10. **"Trace" results** - results falling between the MDL and the practical quantitation limit (PQL) - shall be reported as such, and shall be accompanied both by the estimated MDL and PQL values for that analytical run.

11. **MDLs and PQLs** shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being quoted from USEPA analytical method manuals. In relatively interference-free water, laboratory-derived MDLs and PQLs are expected to closely agree with published USEPA MDLs and PQLs.

12. 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 MDL/PQL values, the results shall be flagged accordingly, along with estimates of the detection limit and quantitation limit actually achieved. The **MDL shall always be calculated such that it**

represents the lowest achievable concentration associated with a 99% reliability of a nonzero result. The PQL shall always be calculated such that it represents the lowest constituent concentration at which a numerical value can be assigned with reasonable certainty that it represents the constituent's actual concentration in the sample. Normally, PQLs should be set equal to the concentration of the lowest standard used to calibrate the analytical procedure.

13. All **QA/QC data** shall be reported, along with the sample results to which they apply, including the method, equipment, analytical detection and quantitation limits, the percent recovery, an explanation for any recovery that falls outside the QC limits, the results of equipment and 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. Sample results shall be reported unadjusted for blank results or spike recoveries. 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.

14. Unknown chromatographic peaks shall be reported, flagged, and tracked for potential comparison to subsequent unknown peaks that may be observed in future sampling events. Identification of unknown chromatographic peaks that recur in subsequent sampling events may be required.

15. The statistical method shall account for data below the practical quantitation limit (PQL) with one or more statistical procedures that are protective of human health and the environment. Any PQL validated pursuant to Title 27 CCR Section 20415(e)(7) that is used in the statistical method shall be **the lowest concentration (or value) that can be reliably achieved** within limits of precision and accuracy specified in the WDRs for routine laboratory operating conditions that are available to the facility. The Discharger's technical report, pursuant to Title 27 CCR Section 20415(e)(7), shall consider the PQLs listed in Appendix IX to Chapter 14 of Division 4.5 of Title 22, CCR, for guidance when specifying limits of precision and accuracy. For any given constituent monitored at a background or downgradient monitoring point, an indication that falls between the MDL and the PQL for that constituent (hereinafter called a "trace" detection) shall be identified and used in appropriate statistical or nonstatistical tests. Nevertheless, for a statistical method that is compatible with the proportion of censored data (trace and ND indications) in the data set, the Discharger can use the laboratory's concentration estimates in the trace range (if available) for statistical analysis, in order to increase the statistical power by decreasing the number of "ties".

16. Background for water samples shall be represented by the data from all samples taken from applicable background monitoring points during that reporting period (at least one sample from each background monitoring point). The Discharger may propose an alternate statistical method [to the methods listed under Title 27 CCR Section 20415(e)(8)(A-D)] in accordance with Title 27 CCR Section 20415(e)(8)(E), for review and approval by the Executive Officer.

17. The Discharger may propose an alternate statistical method [to the methods listed under Title 27 CCR Section 20415(e)(8)(A-D)] in accordance with Title 27 CCR Section 20415(e)(8)(E), for review and approval by the Executive Officer. Upon receiving written approval from the Executive Officer, alternate statistical procedures may be used for determining the significance of analytical results for common laboratory contaminants (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate). Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Regional Water Board staff.

18. The Discharger shall use the following non-statistical method for all analytes that are detected in less than 10% of the background samples. The non-statistical method shall be implemented as follows:

    a. From the constituent of concern or monitoring parameter list, identify each analyte in the **current** sample that exceeds either its respective MDL or PQL. The Discharger shall conclude that the exceedance provides a preliminary indication of a release or a change in the nature or extent of the release, at that monitoring point, if ***either:***

        1) The data contains two or more analytes that are detected in less than 10% of background samples that equal or exceed their respective MDLs; or

        2) The data contains one or more analyte that equals or exceeds its PQL.

    b. **Discrete Retest** [Title 27 CCR Section 20415(e)(8)(E)]:

        1) In the event that the Discharger concludes (pursuant to paragraph 19.a., above) that there is a preliminary indication of a release, then the Discharger shall immediately notify Regional Water Board staff by phone or e-mail and, within 30 days of such indication, shall collect two new (retest) samples from the monitoring point where the release is preliminarily indicated.

2) For any given retest sample, the Discharger shall include, in the retest analysis, **only the laboratory analytical results for those analytes detected in the original sample**. As soon as the retest data are available, the Discharger shall conclude that there is measurably significant evidence of a release if two or more analytes equal or exceed their respective MDLs or if one or more analyte equals or exceeds its PQL and shall:

   a) **Immediately** notify the Regional Water Board about any constituent or constituents verified to be present at the monitoring point, and follow up with written notification submitted by certified mail **within seven days** of validation; and

   b) Comply with ¶19, below if any constituent or constituents were verified to be present.

3) Any analyte that triggers a discrete retest per this method shall be added to the monitoring parameter list such that it is monitored during each regular monitoring event.

19. If the Discharger determines that there is measurably significant evidence of a release from the Unit at any monitoring point, the Discharger shall **immediately** implement the requirements of **XI. Response To A Release, C. Release Has Been Verified**, contained in the Standard Provisions and Reporting Requirements.

E. REPORTING REQUIREMENTS

1. In the event the Discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the Discharger shall notify the appropriate Regional Water Board office by telephone **as soon as** it or its agents have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing **within two weeks**. The written notification shall state the nature, time, and cause of noncompliance, and shall describe the measures being taken to prevent recurrences and shall include a timetable for corrective actions.

2. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained throughout the facility's postclosure period.

Such legible records shall show the following for each sample:

a. Sample identification and the monitoring point or background monitoring point from which it was taken, along with the identity of the individual who obtained the sample;

b. Date, time, and manner of sampling;

c. Date and time that analyses were started and completed, and the name of the personnel and laboratory performing each analysis;

d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;

e. Calculation of results; and

f. Results of analyses, and the MDL and PQL for each analysis.

3. A transmittal letter explaining the essential points shall accompany each report. At a minimum, the transmittal letter shall identify any violations found since the last report was submitted, and if the violations were corrected. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. The transmittal letter shall also state that a discussion of any violations found since the last report was submitted, and a description of the actions taken or planned for correcting those violations, including any references to previously submitted time schedules, is contained in the accompanying report.

4. Each monitoring report shall include a compliance evaluation summary. The summary shall contain at least:

   a. For each monitoring point and background monitoring point addressed by the report, a description of:

      1) The time of water level measurement;

      2) The type of pump - or other device - used for purging and the elevation of the pump intake relative to the elevation of the screened interval;

      3) 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; and the method of disposing of the

purge water) to remove all portions of the water that was in the well bore while the sample was being taken;

4) The type of pump - or other device - used for sampling, if different than the pump or device used for purging; and

5) A statement that the sampling procedure was conducted in accordance with the approved Sampling and Analysis Plan.

b. A map or aerial photograph showing the locations of observation stations, monitoring points, and background monitoring points.

c. For each groundwater body, a description and graphical presentation of the gradient and direction of groundwater flow under/around the Unit, and the groundwater flow rate, based upon water level elevations taken prior to the collection of the water quality data submitted in the report.

d. Laboratory statements of results of all analyses evaluating compliance with requirements.

e. An evaluation of the effectiveness of the leachate monitoring and control facilities, and of the run-off/run-on control facilities.

f. A summary and certification of completion of all **Standard Observations** for the Unit(s), for the perimeter of the Unit, and for the receiving waters. The Standard Observations are a part of every Quarterly, Semi-annual and Annual Monitoring Report. The Standard Observations shall include:

1) For the Unit:

a) Evidence of ponded water at any point on the facility (show affected area on map);

b) Evidence of odors - presence or absence, characterization, source, and distance of travel from source; and

c) Evidence of erosion and/or of day-lighted refuse.

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; and

c) Evidence of erosion and/or of day-lighted refuse.

3) 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 water uses - presence of water-associated wildlife;

e) Flow rate; and

f) Weather conditions - wind direction and estimated velocity, total precipitation during recent days and on the day of observation.

5. The Discharger shall report by telephone any seepage (release of landfill leachate) from the disposal area **immediately** after it is discovered. A written report shall be filed with the Regional Water Board **within seven days**, containing at least the following information:

a. A map showing the location(s) of seepage;

b. An estimate of the flow rate;

c. A description of the nature of the discharge (e.g., all pertinent observations and analyses);

d. Verification that samples have been submitted for analyses of the Constituents of Concern and Monitoring Parameters, and an estimated date that the results will be submitted to the Regional Water Board; and

e. Corrective measures underway or proposed, and corresponding time schedule.

6. The Discharger shall submit an **Annual Monitoring Summary Report** to the Regional Water Board covering the reporting period of the previous monitoring year. This report shall contain:

    a. All monitoring parameters and constituents of concern shall be graphed so as to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years. Each such graph shall plot the concentration of one or more constituents for the period of record for a given monitoring point or background monitoring point, at a scale appropriate to show trends or variations in water quality. The 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. Graphical analysis of monitoring data may be used to provide significant evidence of a release.

    b. Unless otherwise exempted by the Executive Officer, all monitoring analytical data obtained during the previous five years if available, shall be submitted in tabular form as well as in a digital file format acceptable to the Executive Officer. The Regional Water Board regards the submittal of data in hard copy and in digital format as "...the form necessary for..." statistical analysis [Title 27 CCR Section 20420(h)], in that this facilitates periodic review by the Regional Water Board.

    c. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.

    d. A written summary of the monitoring results, indicating any changes made or observed since the previous annual report.

F. PROVISIONS

1. The Discharger shall maintain a copy of this Order at the Forward Landfill and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.

2. The Discharger shall comply with all applicable provisions of Title 27 and 40 Code of Federal Regulations Part 258 (Subtitle D) that are not specifically referred to in this Order.

3. The Discharger shall comply with Monitoring and Reporting Program No. R5-2007-0046, which is incorporated into and made part of this Order.

4. The Discharger shall comply with the applicable portions of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Title 27 and/or Subtitle D (Title 27 CCR Section 20005 et seq. and 40 CFR 258 et seq.), dated April 2000, which are hereby incorporated into this Order.

5. All reports and transmittal letters shall be signed by persons identified below:

   a. For a corporation: by a principal executive officer of at least the level of senior vice-president.

   b. For a partnership or sole proprietorship: by a general partner or the proprietor.

   c. For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected or appointed official.

   d. A duly authorized representative of a person designated in a, b or c above if;

      1) The authorization is made in writing by a person described in a, b, or c of this provision;

      2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a Unit, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

      3) The written authorization is submitted to the Regional Water Board.

   e. Any person signing a document under this Section shall make the following certification:

      "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

6. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with this Order. Such steps

shall include accelerated or additional monitoring as necessary to determine the nature, extent, and impact of the noncompliance.

7. The owner of the waste management facility shall have the continuing responsibility to assure protection of waters of the state from discharged wastes and from gases and leachate generated by discharged waste during the active life, closure, and postclosure maintenance period of the Unit(s) and during subsequent use of the property for other purposes.

8. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order shall not be regarded as a defense for the Discharger's violations of the Order.

9. To assume ownership or operation under this Order, the succeeding owner or operator must apply in writing to the Regional Water Board requesting transfer of the Order within 14 days of assuming ownership or operation of this facility. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Water Board, and a statement. The statement shall comply with the signatory requirements contained in Provision F.5. and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer of this Order shall be approved or disapproved by the Regional Water Board.

10. The Discharger shall establish cost estimates for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill, and submit these estimates to the Regional Water Board by **30 April** each year. Based on those estimates, the Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill in an amount approved by the Executive Officer, and shall submit the financial assurance mechanism to the Financial Assurances Section of the California Integrated Waste Management Board.

11. The Discharger is required to maintain financial assurance mechanisms for post-closure maintenance costs as specified in Chapter 6 of Title 27. The Discharger is required to submit the financial assurance mechanism to the Financial Assurances Section of the California Integrated Waste Management Board, which determines if the mechanism meets the requirements of Chapter 6, Title 27, and if the amount of coverage is adequate. In addition, the Discharger

shall conduct an annual review of the post closure maintenance costs and compare them to the financial assurance amounts. The review shall be submitted to the Regional Water Board by **30 April** each year.

12. By **30 May 2007**, the Discharger shall provide proof to the Regional Water Board that the deed to the landfill facility property, or some other instrument that is normally examined during a title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:

    a. the parcel has been used as a landfill;

    b. non-hazardous wastes have been discharged at this site;

    c. use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the landfill; and

    d. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.

13. By **30 May 2007**, the Discharger shall submit a surface water monitoring plan that complies with Section D.3. of the Monitoring and Reporting Program No. R5-2007-0046 and Title 27. This plan shall include a map showing all surface water monitoring locations, sampling procedures and analysis to be performed, and the frequency of the sampling that at a minimum is consistent with Monitoring and Reporting Program No. R5-2007-0046. The surface water monitoring system shall be installed 45 days after concurrence of the plan by the Regional Water Board staff.

In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

I, PAMELA C. CREEDON Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 4 May 2007.

_____
PAMELA C. CREEDON, Executive Officer

RDA: 05/04/2007

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0046
FOR
FORWARD INC.
ALLIED WASTE INDUSTRIES, INC.
FOR POST-CLOSURE MAINTENANCE OF
FRENCH CAMP MUNICIPAL SOLID WASTE LANDFILL
SAN JOAQUIN COUNTY

Compliance with this Monitoring and Reporting Program, with Title 27, California Code of Regulations, Section 20005, et seq. (hereafter Title 27), and with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Title 27 and/or Subtitle D (27 CCR §20005 et seq. and 40 CFR 258)*, dated April 2000, is ordered by Waste Discharge Requirements Order No. R5-2007-0046.

A. REQUIRED MONITORING REPORTS

	Report	Frequency
1.	Groundwater Monitoring (Section D.1)	**Semiannual**
2.	Annual Monitoring Summary Report (Order No. R5-2007-0046, F.6.)	**Annually**
3.	Landfill Gas Monitoring (Section D.2)	**Semiannual**
4.	Surface Water Monitoring (Section D.4)	**Semiannual**
5.	Facility Monitoring (Section D.5)	**As necessary**
6.	Response to a Release (Standard Provisions and Reporting Requirements)	**As necessary**

B. REPORTING

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in Order No. R5-2007-0046 and the Standard Provisions and Reporting Requirements. Reports which do not comply with the required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the waste discharge requirements. In reporting the monitoring data required by this program, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The data shall be

summarized in such a manner so as to illustrate clearly the compliance with waste discharge requirements or the lack thereof. Data shall also be submitted annually in a digital format acceptable to the Executive Officer.

Each monitoring report shall include a compliance evaluation summary as specified in F. Reporting Requirements, of Order No. R5-2007-0046.

Field and laboratory tests shall be reported in each monitoring report. Monthly, quarterly, semiannual, and annual monitoring reports shall be submitted to the Board in accordance with the following schedule for the calendar period in which samples were taken or observations made.

Sampling Frequency	**Reporting Frequency**	**Report Period Ends**	**Report Due**
Monthly	Quarterly	Last Day of Month	**30 April** **31 July** **31 October** **31 January**
Quarterly	Quarterly	31 March 30 June 30 September 31 December	**30 April** **31 July** **31 October** **31 January**
Semiannually	Semiannually	30 June 31 December	**31 July** **31 January**
Annually	Annually	31 December	**31 January**

The Discharger shall submit an **Annual Monitoring Summary Report** to the Board covering the previous monitoring year. The annual report shall contain the information specified in F. Reporting Requirements, of Order No. R5-2007-0046, and a discussion of compliance with the waste discharge requirements and the Water Quality Protection Standard.

The results of **all monitoring** conducted at the site shall reported to the Board in accordance with the reporting schedule above for the calendar period in which samples were taken or observations made.

C. WATER QUALITY PROTECTION STANDARD AND COMPLIANCE PERIOD

1. Water Quality Protection Standard Report

Water Quality Protection Standards have previously been established for the French Camp Landfill and a revised Water Quality Protection Standard Report is not required at this time. If conditions change requiring a revision to the Water Quality Protection Standards the Executive Officer may request submittal of a revised report.

For each waste management unit (Unit), the Water Quality Protection Standard shall consist of all constituents of concern, the concentration limit for each constituent of concern, the point of compliance, and all water quality monitoring points.

The Water Quality Protection Standard for naturally occurring waste constituents consists of the constituents of concern, the concentration limits, and the point of compliance and all monitoring points. The Water Quality Protection Standard, or any modification thereto, for each monitored medium shall be submitted in a report when requested by the Executive Officer.

The report shall:

a. Identify **all distinct bodies of surface and ground water** that could be affected in the event of a release from a Unit or portion of a Unit. This list shall include at least the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the facility.

b. Include a map showing the monitoring points and background monitoring points for the surface water monitoring program, groundwater monitoring program, and the landfill gas monitoring program. The map shall include the point of compliance in accordance with §20405 of Title 27.

c. Evaluate the perennial direction(s) of groundwater movement within the uppermost groundwater zone(s).

If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at the site, the Discharger may request modification of the Water Quality Protection Standard.

2. Constituents of Concern

The constituents of concern include all the waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the Unit. The constituents of concern for all Units at the facility are those listed in Tables I through III for the specified monitored medium, and Table IV. The Discharger shall monitor all constituents of concern every five years, or more frequently as required in accordance with a Corrective Action Program.

a. Monitoring Parameters

Monitoring parameters are constituents of concern that are the waste constituents, reaction products, hazardous constituents, and physical parameters that provide a reliable indication of a release from a Unit. The monitoring parameters for all Units are those listed in Tables I through III for the specified monitored medium.

3. Concentration Limits

For a naturally occurring constituent of concern, the concentration limit for each constituent of concern shall be determined as follows:

a. By calculation in accordance with a statistical method pursuant to §20415 of Title 27; or

b. By an alternate statistical method acceptable to the Executive Officer in accordance with §20415 of Title 27.

Concentration Limits have previously been established for Detection Monitoring Wells. The established Concentration Limits are as follows:

ESTABLISHED CONCENTRATION LIMITS
FOR NATURALLY OCCURING CONSTITUENTS

Constituent	Concentration Limit
Field Parameter	
pH	6.9 – 10.21 pH units
Specific Conductance	2500 umhos/cm
Temperature	21.69 ^{o}C
Turbidity	1000 NTU

Constituent	Concentration Limit
Monitoring Parameter	
Chloride	249 mg/l
Nitrate as N	19.3 mg/l
Sulfate	358 mg/l
Total Dissolved Solids	1600 mg/l

4. Point of Compliance

The point of compliance for the water standard at each Unit is a vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit.

5. Compliance Period

The compliance period for each Unit shall be equal to the closure period, a minimum of 30 years. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the Unit. The compliance period shall begin anew each time the Discharger initiates an evaluation monitoring program.

D. MONITORING

The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and landfill gas, in accordance with Detection Monitoring Specification E.2 and E.4 of Waste Discharge Requirements, Order No. R5-2007-0046. All monitoring shall be conducted in accordance with a Sample Collection and Analysis Plan, which includes quality assurance/quality control standards.

All point of compliance monitoring wells established for the detection monitoring program shall constitute the monitoring points for the groundwater Water Quality Protection Standard. All detection monitoring program groundwater monitoring wells, landfill gas monitoring devices, and surface water monitoring points shall be sampled and analyzed for monitoring parameters and constituents of concern as indicated and listed in Tables I through III.

Method detection limits and practical quantitation limits shall be reported. All peaks shall be reported, including those which cannot be quantified and/or specifically identified. Metals shall be analyzed in accordance with the methods listed in Table IV.

The Discharger may, with the approval of the Executive Officer, use alternative analytical test methods, including new USEPA approved methods, provided the methods have method detection limits equal to or lower than the analytical methods specified in this Monitoring and Reporting Program.

1. Groundwater

The Discharger shall operate and maintain a groundwater detection monitoring system that complies with the applicable provisions of §20415 and §20420 of Title 27 in accordance with a Detection Monitoring Program. The Discharger shall collect, preserve, and transport groundwater samples in accordance with the approved Sample Collection and Analysis Plan.

The groundwater detection monitoring system shall consist of background wells MW-6A, and -7A; and monitor wells MW-8A, -9A, -9B and –10A.

The Discharger shall determine the groundwater flow rate and direction in the uppermost aquifer and in any zones of perched water and in any additional zone of saturation monitored pursuant to this Monitoring and Reporting Program, quarterly, including the times of highest and lowest elevations of the water levels in the wells. Quarterly water levels potentiometric surface maps will be reported in the detection monitoring report.

Hydrographs of each well shall be submitted showing the elevation of groundwater with respect to the elevations of the top and bottom of the screened interval and the elevation of the pump intake. Hydrographs of each well shall be prepared quarterly and submitted annually.

Groundwater samples shall be collected from the point-of-compliance wells, background wells, and any additional wells added as part of the approved groundwater monitoring system. Samples shall be collected quarterly beginning the first quarter of 2007 for one year and semi-annually there after. Samples will be analyzed for the monitoring parameters in accordance with the methods specified in Table I.

The monitoring parameters shall be evaluated each reporting period. Annually, the results shall be graphed to show historical trends at each sample location and graphically presented using a Stiff diagram, Piper graph, or Schuller Plot. Monitoring parameters for groundwater are listed in Table I below. Samples for the constituents of concern specified in Table I shall be collected and analyzed in accordance with the methods listed in Table IV every five years beginning in 2011.

TABLE I

GROUNDWATER DETECTION MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Groundwater Elevation	Ft. & hundredths, M.S.L.	Quarterly
Temperature	^{o}C	Semiannual
Electrical Conductivity	µmhos/cm	Semiannual
pH	pH units	Semiannual
Turbidity	Turbidity units	Semiannual
Monitoring Parameters		
Total Dissolved Solids (TDS)	mg/L	Semiannual
Chloride	mg/L	Semiannual
Carbonate	mg/L	Semiannual
Bicarbonate	mg/L	Semiannual
Nitrate - Nitrogen	mg/L	Semiannual
Sulfate	mg/L	Semiannual
Calcium	mg/L	Semiannual
Magnesium	mg/L	Semiannual
Potassium	mg/L	Semiannual
Sodium	mg/L	Semiannual
Volatile Organic Compounds (USEPA Method 8260, see Table IV)	µg/L	Semiannual
Constituents of Concern (see methods in Table IV)		
Total Organic Carbon	mg/L	5 years
Inorganics (dissolved)	mg/L	5 years
Volatile Organic Compounds (USEPA Method 8260B, extended list)	µg/L	5 years
Semi-Volatile Organic Compounds (USEPA Method 8270C)	µg/L	5 years
Chlorophenoxy Herbicides (USEPA Method 8151A)	µg/L	5 years
Organophosphorus Compounds (USEPA Method 8141A)	µg/L	5 years

2. Landfill Gas Monitoring

The Discharger shall operate and maintain a landfill gas detection monitoring system in accordance with the *Landfill Gas Detection Monitoring Plan, French Camp Landfill* dated 28 December 2006. The Discharger shall collect, preserve, and transport samples in accordance with the quality assurance/quality control standards contained in the Landfill Gas Detection Monitoring Plan.

Soil-pore gas monitoring points shall be SGP-1A, -2A, -3, -4A, -5A, -6A, -7A and –8A. For one year beginning first quarter 2007, on a quarterly basis each probe will be measured for methane, oxygen, and carbon dioxide with a field instrument and a gas sample shall be collected and analyzed for VOCs by EPA method TO-15 and for methane by ASTM method D1946. In subsequent years on a semi-annual basis, each probe shall be measured for methane, oxygen, and carbon dioxide with a field instrument. If field screening detects methane concentrations equal to or greater than 2.5% a soil-pore gas sample shall be collected and submitted for analysis from that monitoring point and analyzed for VOCs by EPA method TO-15 and for methane by ASTM method 1946. All monitoring parameters shall be graphed annually so as to show historical trends at each monitoring point. Monitoring parameters for soil pore gas analysis are listed in Table II.

TABLE II

LANDFILL GAS DETECTION MONITORING PROGRAM

SOIL-PORE GAS

Parameter	Units	Frequency
Monitoring Parameters		
Volatile Organic Compounds (USEPA Method TO-15)	µg/cm^3	Semiannual
Methane (ASTM Method 1946)	%	Semiannual

3. Surface Water Monitoring

The Discharger shall install and operate a surface water detection monitoring system that complies with the applicable provisions of §20415 and §20420 of Title 27.

The surface water monitoring system shall consists of three monitoring points for surface water detection monitoring. For all monitoring points

and background monitoring points assigned to surface water detection monitoring, samples shall be collected and analyzed for the monitoring parameters in accordance with the methods specified in Table IV. Surface water detection monitoring samples shall be collected quarterly for one year beginning the first quarter of 2007 and semi-annually thereafter. The Discharge shall submit a plan to monitor water levels in the sloughs or in the landfill with a piezometer. Water levels shall be collected at least quarterly, and reported in the semi-annual reports. All surface water monitoring samples shall be collected and analyzed for the constituents of concern specified in Table III every five years. All monitoring parameters shall be graphed annually so as to show historical trends at each sample location. Monitoring parameters for surface water are shown in Table III.

TABLE III

SURFACE WATER DETECTION MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Temperature	^{o}C	Semiannual
Electrical Conductivity	µmhos/cm	Semiannual
pH	pH units	Semiannual
Turbidity	Turbidity units	Semiannual
Monitoring Parameters		
Total Dissolved Solids (TDS)	mg/L	Semiannual
Carbonate	mg/L	Semiannual
Bicarbonate	mg/L	Semiannual
Chloride	mg/L	Semiannual
Nitrate - Nitrogen	mg/L	Semiannual
Sulfate	mg/L	Semiannual
Calcium	mg/L	Semiannual
Magnesium	mg/L	Semiannual
Potassium	mg/L	Semiannual
Sodium	mg/L	Semiannual
Volatile Organic Compounds (USEPA Method 8260B, see Table IV)	µg/L	Semiannual
Constituents of Concern (see methods in Table IV)		
Total Organic Carbon	mg/L	5 years
Inorganics (dissolved)	mg/L	5 years
Volatile Organic Compounds (USEPA Method 8260B, extended list)	µg/L	5 years
Semi-Volatile Organic Compounds (USEPA Method 8270C)	µg/L	5 years
Chlorophenoxy Herbicides (USEPA Method 8151A)	µg/L	5 years
Organophosphorus Compounds (USEPA Method 8141A)	µg/L	5 years

4. Facility Monitoring

a. **Facility Inspection**

Annually, prior to the anticipated rainy season, but no later than **30 September**, the Discharger shall conduct an inspection of the facility. The inspection shall assess damage to the drainage control system, groundwater monitoring equipment (including wells, etc.), and shall include the Standard Observations contained in section F.4.f. of Order No. R5-2007-0046. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. By **15 November** of each year, the Discharger shall submit an annual report describing the results of the inspection and the repair measures implemented, including photographs of the problem and the repairs.

b. **Storm Events**

The Discharger shall inspect all precipitation, diversion, and drainage facilities for damage **within 7 days** following *major storm events*. A major storm event is any storm that causes or threatens to cause local flooding in the French Camp – Stockton area. Necessary repairs shall be completed **within 30 days** of the inspection. The Discharger shall report any damage and subsequent repairs within 45 days of completion of the repairs, including photographs of the problem and the repairs.

The Discharger shall implement the above monitoring program on the effective date of this Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

_____
(Date)

RDA: 04/10/07

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Inorganics (dissolved):	**USEPA Method**
Aluminum	6010
Antimony	7041
Barium	6010
Beryllium	6010
Cadmium	7131A
Chromium	6010
Cobalt	6010
Copper	6010
Silver	6010
Tin	6010
Vanadium	6010
Zinc	6010
Iron	6010
Manganese	6010
Arsenic	7062
Lead	7421
Mercury	7470A
Nickel	7521
Selenium	7742
Thallium	7841
Cyanide	9010B
Sulfide	9030B

Volatile Organic Compounds:

USEPA Method 8260

Acetone
Acetonitrile (Methyl cyanide)
Acrolein
Acrylonitrile
Allyl chloride (3-Chloropropene)
Benzene
Bromochloromethane (Chlorobromomethane)
Bromodichloromethane (Dibromochloromethane)
Bromoform (Tribromomethane)
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane (Ethyl chloride)
Chloroform (Trichloromethane)
Chloroprene
Dibromochloromethane (Chlorodibromomethane)

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Continued

1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (Ethylene dibromide; EDB)
o-Dichlorobenzene (1,2-Dichlorobenzene)
m-Dichlorobenzene (1,3-Dichlorobenzene)
p-Dichlorobenzene (1,4-Dichlorobenzene)
trans- 1,4-Dichloro-2-butene
Dichlorodifluoromethane (CFC 12)
1,1 -Dichloroethane (Ethylidene chloride)
1,2-Dichloroethane (Ethylene dichloride)
1,1 -Dichloroethylene (1, l-Dichloroethene; Vinylidene chloride)
cis- l ,2-Dichloroethylene (cis- 1,2-Dichloroethene)
trans- l ,2-Dichloroethylene (trans- 1,2-Dichloroethene)
1,2-Dichloropropane (Propylene dichloride)
1,3-Dichloropropane (Trimethylene dichloride)
2,2-Dichloropropane (Isopropylidene chloride)
1,1 -Dichloropropene
cis- 1,3-Dichloropropene
trans- l ,3-Dichloropropene
Di-isopropylether (DIPE)
Ethanol
Ethyltertiary butyl ether
Ethylbenzene
Ethyl methacrylate
Hexachlorobutadiene
Hexachloroethane
2-Hexanone (Methyl butyl ketone)
Isobutyl alcohol
Methacrylonitrile
Methyl bromide (Bromomethane)
Methyl chloride (Chloromethane)
Methyl ethyl ketone (MEK; 2-Butanone)
Methyl iodide (Iodomethane)
Methyl t-butyl ether
Methyl methacrylate
4-Methyl-2-pentanone (Methyl isobutyl ketone)
Methylene bromide (Dibromomethane)
Methylene chloride (Dichloromethane)
Naphthalene
Propionitrile (Ethyl cyanide)
Styrene
Tertiary amyl methyl ether
Tertiary butyl alcohol
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Continued

Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)
Toluene
1,2,4-Trichlorobenzene
1,1,1 -Trichloroethane, Methylchloroform
1,1,2-Trichloroethane
Trichloroethylene (Trichloroethene; TCE)
Trichlorofluoromethane (CFC- 11)
1,2,3-Trichloropropane
Vinyl acetate
Vinyl chloride (Chloroethene)
Xylene (total)

Semi-Volatile Organic Compounds:

USEPA Method 8270 - base, neutral, & acid extractables

Acenaphthene
Acenaphthylene
Acetophenone
2-Acetylaminofluorene (2-AAF)
Aldrin
4-Aminobiphenyl
Anthracene
Benzo[a]anthracene (Benzanthracene)
Benzo[b]fluoranthene
Benzo[k]fluoranthene
Benzo[g,h,i]perylene
Benzo[a]pyrene
Benzyl alcohol
Bis(2-ethylhexyl) phthalate
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether (Dichloroethyl ether)
Bis(2-chloro-1-methyethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)
4-Bromophenyl phenyl ether
Butyl benzyl phthalate (Benzyl butyl phthalate)
Chlordane
p-Chloroaniline
Chlorobenzilate
p-Chloro-m-cresol (4-Chloro-3-methylphenol)
2-Chloronaphthalene
2-Chlorophenol

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Continued

4-Chlorophenyl phenyl ether
Chrysene
o-Cresol (2-methylphenol)
m-Cresol (3-methylphenol)
p-Cresol (4-methylphenol)
4,4'-DDD
4,4'-DDE
4,4'-DDT
Diallate
Dibenz[a,h]anthracene
Dibenzofuran
Di-n-butyl phthalate
3,3'-Dichlorobenzidine
2,4-Dichlorophenol
2,6-Dichlorophenol
Dieldrin
Diethyl phthalate
p-(Dimethylamino)azobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
2,4-Dimehtylphenol (m-Xylenol)
Dimethyl phthalate
m-Dinitrobenzene
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
Diphenylamine
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Hexachloropropene
Indeno(1,2,3-c,d)pyrene

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Continued

Isodrin
Isophorone
Isosafrole
Kepone
Methapyrilene
Methoxychlor
3-Methylcholanthrene
Methyl methanesulfonate
2-Methylnaphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
o-Nitroaniline (2-Nitroaniline)
m-Nitroaniline (3-Nitroaniline)
p-Nitroaniline (4-Nitroaniline)
Nitrobenzene
o-Nitrophenol (2-Nitrophenol)
p-Nitrophenol (4-Nitrophenol)
N-Nitrosodi-n-butylamine (Di-n-butylnitrosamine)
N-Nitrosodiethylamine (Diethylnitrosamine)
N-Nitrosodimethylamine (Dimethylnitrosamine)
N-Nitrosodiphenylamine (Diphenylnitrosamine)
N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine)
N-Nitrosomethylethylamine (Methylethylnitrosamine)
N-Nitrosopiperidine
N-Nitrosospyrrolidine
5-Nitro-o-toluidine
Pentachlorobenzene
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenanthrene
Phenol
p-Phenylenediamine
Polychlorinated biphenyls (PCBs; Aroclors)
Pronamide
Pyrene
Safrole
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol
o-Toluidine
Toxaphene
2,4,5-Trichlorophenol
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene

TABLE IV

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Continued

Chlorophenoxy Herbicides:

USEPA Method 8l51A
2,4-D (2,4-Dichlorophenoxyacetic acid)
Dinoseb (DNBP; 2-sec-Butyl-4,6-dinitrophenol)
Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)

Organophosphorus Compounds:

USEPA Method 8141A
Atrazine
Chlorpyrifos
0,0-Diethyl 0-2-pyrazinyl phosphorothioate (Thionazin)
Diazinon
Dimethoate
Disulfoton
Ethion
Methyl parathion (Parathion methyl)
Parathion
Phorate
Simazine

INFORMATION SHEET

ORDER NO. R5-2007-0046
WASTE DISCHARGE REQUIREMENTS
FORWARD INC. AND ALLIED WASTE INDUSTRIES INC.
FOR POST-CLOSURE MAINTENANCE OF FRENCH CAMP LANDFILL
SAN JOAQUIN, COUNTY

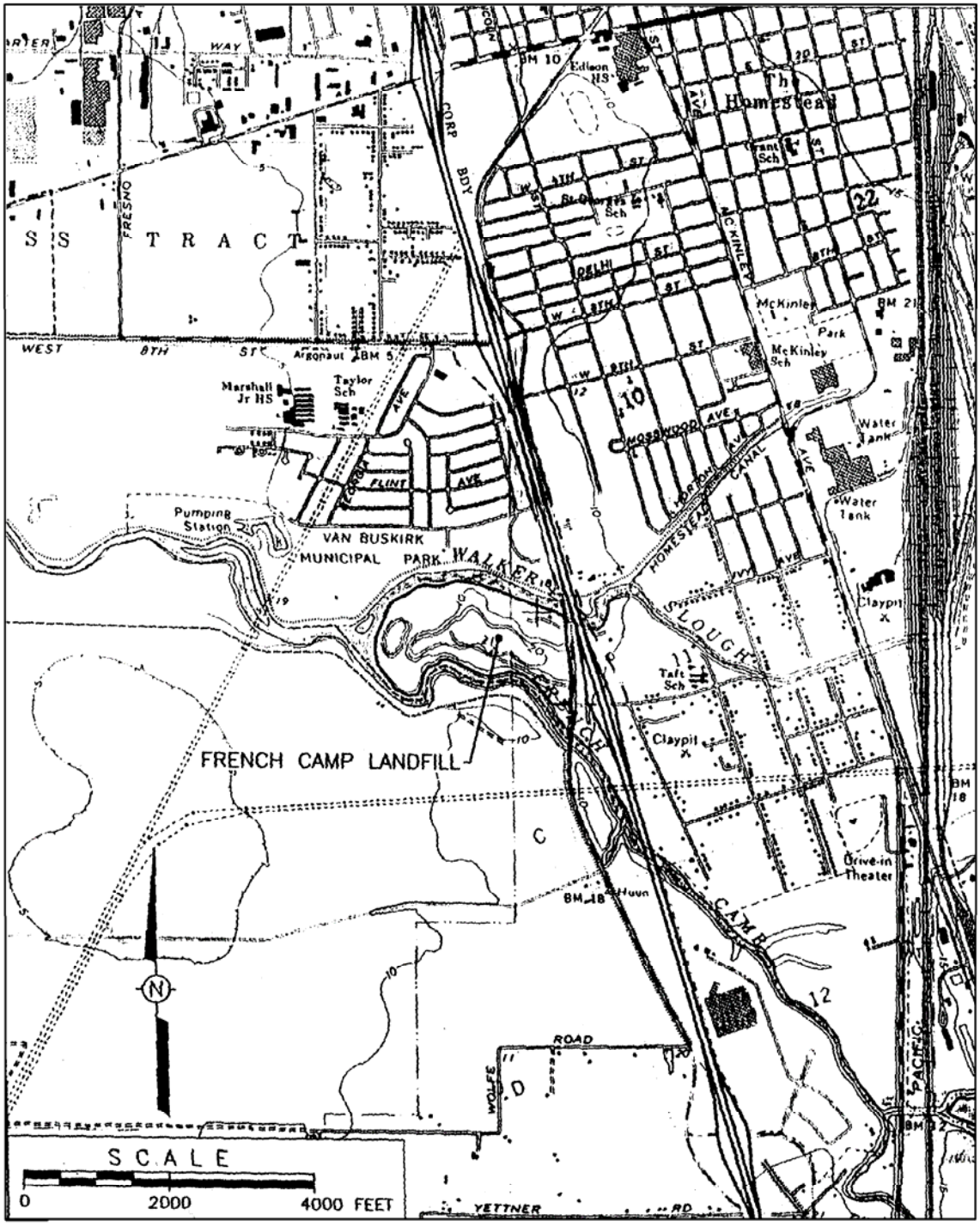
Forward Inc. (a subsidiary of Allied Waste Industries Inc.) (jointly hereafter referred to as Discharger) owns the French Camp Landfill, a closed unlined Class III landfill approximately one mile south of downtown Stockton. The Discharger closed the facility with a soil cover in compliance with California Code of Regulations Title 27.

The landfill began operations in 1938, as a burn dump accepting Groups 2 and 3 (old classification) wastes. Group 2 wastes consist of or contain chemically or biologically decomposable material which does not include toxic substances nor those capable of significantly impairing the quality of usable waters. Group 3 wastes consist entirely of non-water soluble non-decomposable inert solids. After 1957, the facility accepted only demolition and garden wastes. Wastes were not accepted after 1999. The facility was originally owned and operated by City of Stockton and was acquired by Forward Inc. in 1999 as part of a deal involving multiple properties.

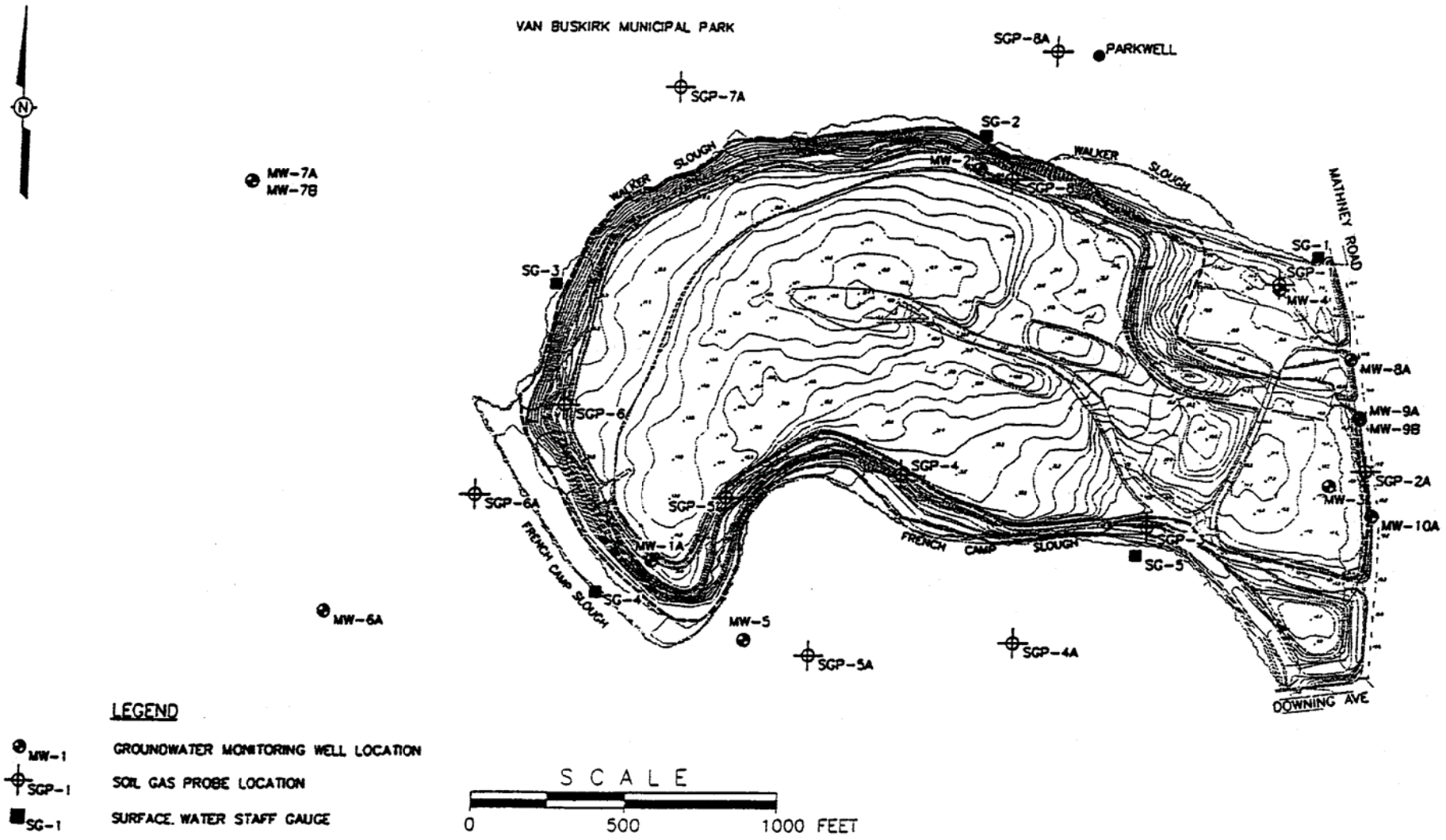
The facility has been closed with a final landfill cover that complies with the cover requirements in Title 27. These Waste Discharge Requirements regulate the post-closure maintenance and environmental monitoring at this closed facility.

Groundwater down-gradient of the landfill contains elevated concentrations of total dissolved solids, chloride, sulfate and nitrate. Intermittent low levels of Volatile Organic Compounds (VOCs) are often detected in groundwater samples. Low level VOC detections in groundwater are characteristic of releases due to landfill gas. Closure of the landfill may cause a temporary VOC increase in groundwater. A new landfill cover often traps gas that migrates to groundwater. In the long run the cover will prevent infiltration of water into the waste and generation of new gas will stop. This process often takes several years. If VOC concentrations in groundwater increase, the Discharger will implement its contingency gas extraction plan to mitigate this increase.

RDA:9 March 2007



Attachment A
FRENCH CAMP LANDFILL
Site Location Map



Attachment B
FRENCH CAMP LANDFILL
Site Layout Map