



**FORWARD LANDFILL  
9999 SOUTH AUSTIN ROAD MANTECA, CALIFORNIA 95336  
HAZARDOUS WASTE POST CLOSURE FACILITY PERMIT**

**TABLE OF CONTENTS**

PART I. DEFINITIONS.....	3
PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP.....	4
1. OWNER OF FACILITY.....	4
2. OWNER OF REAL PROPERTY.....	4
3. OPERATOR OF FACILITY.....	4
4. LOCATION.....	4
5. DESCRIPTION OF FACILITY OPERATIONS.....	4
6. FACILITY HISTORY.....	5
7. FACILITY SIZE AND TYPE FOR FEE PURPOSES.....	5
PART III. GENERAL CONDITIONS.....	6
1. PERMIT APPLICATION DOCUMENTS.....	6
2. EFFECT OF PERMIT.....	6
3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA).....	7
4. ENVIRONMENTAL MONITORING.....	7
5. ACCESS.....	8
PART IV. PERMITTED UNITS AND ACTIVITIES.....	9
PART V. SPECIAL CONDITIONS.....	11
PART VI. CORRECTIVE ACTION.....	13
APPENDIX A: FOWARD LANDFILL, SITE LOCATION MAP	
APPENDIX B: WMU-SITE MAP	
APPENDIX C: WMU-A GROUNDWATER MONITORING SYSTEM MAP	

## **PART I. DEFINITIONS**

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, division 20, chapter 6.5 and California Code of Regulations, title 22, division 4.5, unless expressly provided otherwise by this Permit.

1. **“DTSC”** as used in this Permit means the California Department of Toxic Substances Control.
  
2. **“Facility”** as used in this Permit means all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage resource recovery, and disposal or recycling of hazardous waste. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

For the purpose of implementing corrective action under California Code of Regulations, title 22, division 4.5, a hazardous waste facility includes all contiguous property under the control of the owner or operator required to implement corrective action.

3. **“Permittee”** as used in this Permit means the Owner and Operator.
  
4. **“RCRA”** as used in this Permit means the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.).

**PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP**

1. Owner of Facility

Forward, Incorporated  
1145 West Charter Way  
Stockton, California 95206

2. Owner of Real Property

Forward, Incorporated  
1145 West Charter Way  
Stockton, California 95206

3. Operator of Facility

Forward Landfill  
9999 South Austin Road  
Stockton, California 95336

4. Location

Forward Landfill is located at 9999 South Austin Road in San Joaquin County, Stockton, California, seven miles south of Stockton, California in Sections 3 and 10 T1S, R7E and Section 34, T1N, R7E, Mount Diablo Base and Meridian. The coordinates of the property are: Longitude 121<sup>o</sup> 52' 59", Latitude 37<sup>o</sup> 52" 94". The Assessor's Parcel Numbers (APN) for the Facility are 181-150-07, 181-150-08, 181-150-09, 181-150-10, 201-060-01, 201-060-02, 201-060-03, and 201-060-05 A Site Location Map of Forward Landfill is in the Appendix A. The Waste Management Unit A (WMU-A) is located in the central north east portion of the site near the facilities entrance. A WMU-A Site Map is in the Appendix B.

5. Description of Facility Operations

The Facility occupies approximately 567 acres and is currently authorized to receive non-hazardous and municipal solid wastes. The current operating disposal site includes: 1) landfill waste management areas for waste treatment and disposal, 2) a transfer station/resource recovery facility for separating, sorting and recycling activities, and 3) storage and support areas. At the present, the Facility is comprised of several non-hazardous waste management units (WMUs) in various stages (operating, proposed to be constructed, inactive, and closed).

WMU-A is a former hazardous waste disposal unit, within the Facility, that is undergoing post-closure monitoring, inspection, and maintenance (as

necessary). WMU-A occupies approximately 8 acres and contains approximately 320,000 cubic yards of hazardous waste. The primary waste material found in WMU-A is a barium/strontium sludge from mining operations in addition to other wastes such as drilling muds and contaminated soils. This post-closure permit is for WMU-A.

The closure of WMU-A consisted of construction of an impermeable clay cover system, a groundwater monitoring system, a surface drainage control system, and leachate collection and removal system, and a landfill gas collection and detection system.

6. Facility History

The original Forward Landfill operated on 157 acres since 1973, and in 2000 the Owner purchased the adjacent Austin Road Sanitary Landfill on 410 acres for a total of 567 acres. The current active landfill's footprint is approximately 388 acres, of which the current constructed WMUs comprise 288 acres. The remainder is used for other ancillary activities such as soil borrow and/or storage. Existing landfill units consist of unlined landfills covering 15 acres and lined landfills covering 273 acres. Onsite facilities at the Forward Landfill include an office, a scale house, maintenance areas, an active landfill gas extraction system, a landfill gas-to-energy plant, a landfill gas flare, a materials recovery facility, and a groundwater remediation system.

WMU-A is a former hazardous waste disposal unit that was constructed in 1973. It covers approximately 8 acres and contains approximately 320,000 cubic yards of waste. No waste was placed in WMU-A after 1984. A closure plan for WMU-A was approved by DTSC in 1988. In 1989, closure construction was completed. The construction included a cap with a two foot thick clay barrier layer, with a permeability specification of  $\leq 1 \times 10^{-6}$  cm/sec. In January 1990, DTSC issued the first post-closure permit for WMU-A with minor modifications in groundwater monitoring being approved in 1994, 1995, and 1999. The post-closure permit was renewed on June 30, 2003.

7. Facility Size and Type for Fee Purposes

The Facility is categorized as a large post-closure facility pursuant to Health and Safety Code section 25205.7(d)(5). For the purpose of Health and Safety Code section 25205.4, the post-closure period for the facility shall be deemed to have started from the effective date of this Post-Closure Permit. DTSC may extend the post-closure monitoring period beyond 30 years to protect human health and the environment.

### **PART III. GENERAL CONDITIONS**

#### **1. PERMIT APPLICATION DOCUMENTS**

The DTSC-approved Application dated **January 30, 2013** and its revisions on **March 10, 2015, July 6, 2015, September 30, 2015 and December 7, 2015** (Approved Application) is hereby made a part of this Permit by reference. The Approved Application for WMU-A at Forward Landfill also includes by reference the Revised Post-Closure Maintenance Plan WMU-A of Forward Landfill, dated November 4, 1994 and the Preliminary Closure and Post-Closure Maintenance Plan, dated May 2002.

#### **2. EFFECT OF PERMIT**

- (a) The Permittee shall comply with the terms and conditions of this Permit and the provisions of the Health and Safety Code and California Code of Regulations, title. 22, division 4.5. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, those required by the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the Facility.
- (b) The Permittee is permitted to monitor and maintain this Facility for post closure activities in accordance with the terms and conditions of this Permit and the Approved Application. Any management of hazardous wastes not specifically authorized in this Permit is strictly prohibited.
- (c) Compliance with the terms and conditions of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.

- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible enforcement action including but not limited to penalties pursuant to Health and Safety Code section 25187.
- (f) Failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit California Code Regulations, title 22, §66270.43.
- (g) In case of conflicts between the Approved Application and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements (WDR) issued to the Facility by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Notice of Exemption has been prepared in accordance with the requirements of Public Resources Code section 21000 et seq. and the CEQA Guidelines of California Code of Regulations, title 14, §15061(b)(3) et seq.

4. ENVIRONMENTAL MONITORING

The Permittee shall comply with the applicable environmental monitoring and response program requirements of California Code of Regulations, title 22, division 4.5, chapter 14, articles 6 and 7.

- a) For the purpose of California Code of Regulations, title 22, §66264.91(b), the elements of the Groundwater Monitoring and Response Program for the Facility are those described in Section G of the Approved Application.
- b) For the purpose of California Code of Regulations, title 22, §66264.92, the Water Quality Protection Standard for the Facility is described in Section G of the Approved Application.
- c) For the purpose of California Code of Regulations, title 22, §66264.93, the Constituents of Concern (COCs) for the Facility are described in Section G of the Approved Application.

- d) For the purpose of California Code of Regulations, title 22, §66264.94, the Concentration Limits for the Facility are in Section G of the Approved Application.
- e) For the purpose of California Code Regulations, title 22, §66264.95, the Monitoring Points and Points of Compliance for each authorized unit at the Facility are described in Section G of the Approved Application.
- f) For the purpose of California Code Regulations, title 22, §66264.117 and §66264.90(c) the Post Closure Care Period for the authorized unit at the Facility is 30 years. DTSC may extend the Post Closure monitoring period beyond 30 years to protect human health and the environment.
- g) For the purpose of California Code Regulations, title 22, §66270.31, the monitoring, recording, and reporting program for the Facility is described in Section G of the Approved Application.

5. ACCESS

- (a) DTSC, its contractors, employees, agents, and/or any United States Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code Regulations, title 22, division 4.5 et. seq. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5 et seq., and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements. DTSC acknowledges that the Facility is not manned 24-hours a day. DTSC will provide reasonable notice when requiring access to the Facility.
- (b) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable State or federal laws and regulations.

#### **PART IV. PERMITTED UNITS AND ACTIVITIES**

This Permit only authorizes the monitoring and maintenance of the facility's hazardous waste management unit and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit not specified in this Part IV. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

This Facility has one Hazardous Waste Management Unit (WMU-A). This unit is described in detail in the Approved Application as follows:

##### **UNIT NAME:**

The unit name is the Forward Landfill Waste Management Unit A (WMU-A). This is a closed hazardous waste disposal unit.

##### **LOCATION:**

The WMU-A is located ~~in the north east corner~~ on the eastern side of the site near the Facility's entrance as shown in Exhibit B.

##### **ACTIVITY TYPE:**

The post-closure operations include: groundwater monitoring, cover/drainage system inspection and maintenance, landfill gas collection and leachate removal.

##### **ACTIVITY DESCRIPTION:**

The Facility has been monitoring the groundwater quality up gradient and down gradient of WMU-A through a series of 19 monitoring wells that make up the groundwater monitoring network (see Appendix C.) Each monitoring well in the WMU-A groundwater monitoring network is sampled on a quarterly basis (four times a year). Each monitoring well in the groundwater monitoring network is inspected when the groundwater samples are collected. If a problem is encountered during an inspection, it is documented in an inspection log by the sampling technician. Maintenance activities include: 1) redevelopment of monitoring wells, 2) retrofitting well heads, locking system and marks or other features [1 & 2 are conducted on an as needed basis], 3) removal of standing water/condensation in the annulus between the protective casing and well casing, and 4) removal of tall or overhanging vegetation in the vicinity of the wells.

The vegetative cover, which is there to reduce erosion of the impermeable clay cover, is inspected on a monthly basis. Once a year aerial photographs are taken to generate topographical maps. These maps are annually compared to previously taken aerial photographs to determine whether settlement is occurring within WMU-A. Settlement findings are reported in an annual monitoring report submitted to DTSC. Damages to the cover are documented during inspections. The damages are repaired and recorded into the Facility's Operating Record. The leachate collection and recovery system, which consists of three access ports with sumps, is inspected twice a year for the presence of leachate. If damage to the surface vaults leading to the access ports occurs, repairs will be made and noted on a maintenance report.

#### PHYSICAL DESCRIPTION:

WMU-A is a closed hazardous waste disposal unit that covers approximately eight acres. The closed WMU-A consists of an impermeable clay cover system, groundwater monitoring system, surface drainage control system, a leachate collection and removal system, and a landfill gas collection and detection system.

#### MAXIMUM CAPACITY:

WMU-A no longer receives hazardous waste. WMU-A contains approximately 320,000 cubic yards of hazardous waste.

#### WASTE TYPES:

The approximately 320,000 cubic yards of hazardous waste in WMU-A contains barium/strontium from mining sludge operations, zinc, lead, copper, cadmium, silver and chloride from drilling muds, and contaminated soil.

#### AIR EMISSION STANDARDS

WMU-A is not subject to the applicable requirements of California Code of Regulations, title 22, §66264.1030 et. seq.

## **PART V. SPECIAL CONDITIONS**

### GROUNDWATER MONITORING CONDITIONS

~~Based upon the groundwater data submitted in the approved Application, barium has consistently been detected at levels above the concentration limits at wells at the point-of-compliance at least once in a four consecutive quarter period.~~ Pursuant to California Code of Regulations, title 22, §66264.100(f) and 66264.100(g), corrective action measures cannot be terminated until the facility has demonstrated to the satisfaction of DTSC that all constituents of concern are reduced to levels below their respective concentration limits and remain below concentration limits for a period of one year. DTSC has determined that the Facility's corrective action measures have not satisfied the requirements of California Code of Regulations, title 22, §66264.100. Therefore, pursuant to California Code of Regulations, title 22, §66264.100(j), the Facility is required, as conditions of this permit, to make changes to their corrective action program. The requirements to meet the permit conditions are listed below.

1. The Permittee, within 180-days of the issuing of the permit, shall submit to DTSC a draft engineering feasibility study to evaluate and select an alternative remedy to change its corrective action program. Pursuant to California Code Regulations, title 22, §66264.100 et seq, the feasibility study, shall at a minimum, contain the following: 1) a detailed description of the corrective action measures that will be implemented to achieve the established water quality protection standards (WQPS), 2) performance metrics of the alternative remedy that the Permittee and DTSC will use to determine their effectiveness, and 3) all additional information specific to the corrective action detailed in Section M-5 of the approved Application.
2. The Permittee, within 180-days of DTSC's approval of the final engineering feasibility study, shall submit to DTSC an application for a permit modification to change its current corrective action program to the proposed remedy as part of the Facility's engineering feasibility study. A workplan describing any installation activities necessary to implement the new corrective action measures approved as part of the Facility's engineering feasibility study shall be included in the permit modification application. The proposed changes to the corrective action program are to meet the requirements pursuant to California Code of Regulations, title 22, §66264.100(j).
3. The Permittee, within 1-year of DTSC's approval of the permit modification application, which includes the workplan, shall complete any installation activities for the new corrective action measures described in the approved workplan.
4. The Permittee shall comply with the Post Closure Care requirements in accordance with California Code of Regulations, title 22, §66264.117, the Facility's approved Revised Post-Closure Maintenance Plan dated November 4, 1994, and the

Preliminary Closure and Post-Closure Maintenance Plan, dated May 2002, which are incorporated by reference in the approved Application.

5. The Permittee shall continue to comply with Monitoring and Reporting Program Order (M&RP) No. R5-2014-0006 adopted in 2014 by the Central Valley Regional Water Quality Control Board (CVRWQCB) and subsequent amendments. Should the CVRWQCB amend the M&RP, these changes may only be considered part of this permit if changes in the M&RP are implemented via a permit modification in accordance with California Code of Regulations, title 22, division 4.5.

#### LAND USE COVENANT

The Permittee, within 1 year of the issuing of the permit, shall sign and record a land use covenant (LUC) as approved by DTSC, pursuant to California Code of Regulations, title 22, §67391.1 to restrict use of the WMU-A Unit. DTSC has determined that the land use covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on land of hazardous materials as defined in Health and Safety Code 25260. The Permittee shall reimburse DTSC for its costs incurred in implementing and enforcing the LUC, including costs incurred in conducting inspections, preparing inspection reports, and reviewing any Soil Management Plan or Health and Safety Plan as may be required by the LUC. The Permittee's payments of DTSC's costs shall be made within 60 days of the date of the billing statement by check payable to the Department of Toxic Substances Control, P.O. Box 806, Sacramento, California 95812-0806. All checks shall reference the name and address of the Facility.

#### FINANCIAL ASSURANCE

The Permittee requested that DTSC consider financial assurance currently in place for the operating Class II landfill that surrounds WMU-A as well as for postclosure costs associated with the WMU-A. DTSC has determined that many of the activities and associated costs for WMU-A post-closure activities are adequately covered by the cost estimate for the Class II landfill. However, any costs not included in the Class II estimate shall be included in the financial responsibility for WMU-A. DTSC reserves the right to review the adequacy of the financial mechanism for the Class II cost estimate at any time.

## **PART VI - CORRECTIVE ACTION**

### FORWARD GROUNDWATER—ONGOING CORRECTIVE ACTION MONITORING

1. The Permittee shall continue to operate and maintain a groundwater monitoring system as defined in California Code of Regulations, title 22, §66264.90 et. seq. to §66264.100 and described in the Water Quality Sampling and Analysis Plan included in the Approved Application.
2. The Permittee shall continue to submit an annual Groundwater Monitoring Report on ~~February~~ March 1 of each year. The Annual Report will contain tables of the historic data as well as describing the specific monitoring activities that were conducted between January and December of the preceding year. The report will include graphical and statistical trend analysis of the groundwater monitoring data. The report will evaluate the effectiveness of the monitoring system and make recommendations for modifications when appropriate. The report will be signed by a California Registered Geologist or Professional Engineer. In addition, a quarterly monitoring report will be submitted ~~January April~~ May 1, ~~July~~ August 1, ~~November 1~~ and, ~~October~~ March 1 of each year and will include summaries of data collected during the reporting period.

### POTENTIAL OR IMMEDIATE THREATS/NEWLY IDENTIFIED RELEASES/NEWLY IDENTIFIED SWMUs

1. In the event the Permittee identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new Solid Waste Management Units (SWMUs) not previously identified, the Permittee shall notify DTSC orally within 48 hours of discovery and notify DTSC in writing within 10 days of such discovery summarizing the findings including the immediacy and magnitude of any potential threat to human health and/or the environment.
2. DTSC may require the Permittee to investigate, mitigate, and/or take other applicable action to address any immediate or potential threats to human health and/or the environment and newly identified SWMUs or releases of hazardous waste and/or hazardous constituents. If and when corrective action is required at the Facility, the Permittee shall conduct corrective action under either a Corrective Action Consent Agreement or an Enforcement Order for Corrective Action issued by DTSC pursuant to Health and Safety Code sections 25187 and 25200.10.
3. To the extent that work being performed pursuant to Part VI of the Permit must be done on property not owned or controlled by the Permittee, the Permittee shall use its best efforts to obtain access agreements necessary to complete

work required by this Part of the Permit from the present owner(s) of such property within 30 days of approval of any workplan for which access is required. "Best efforts" as used in this paragraph shall include, at a minimum, a certified letter from the Permittee to the present owner(s) of such property requesting access agreement(s) to allow the Permittee and DTSC and its authorized representatives access to such property and the payment of reasonable sums of money in consideration of granting access. The Permittee shall provide DTSC with a copy of any access agreement(s). In the event that agreements for the access are not obtained within 30 days of approval of any workplan for which access is required, or of the date that the need for access becomes known to the Permittee, the Permittee shall notify DTSC in writing within 14 days thereafter regarding both efforts undertaken to obtain access and its failure to obtain such agreements. In the event DTSC obtains access, the Permittee shall undertake approved work on such property. If there is any conflict between this permit condition on access and the access requirements in any agreement entered into between DTSC and the Permittee, this permit condition on access shall govern.

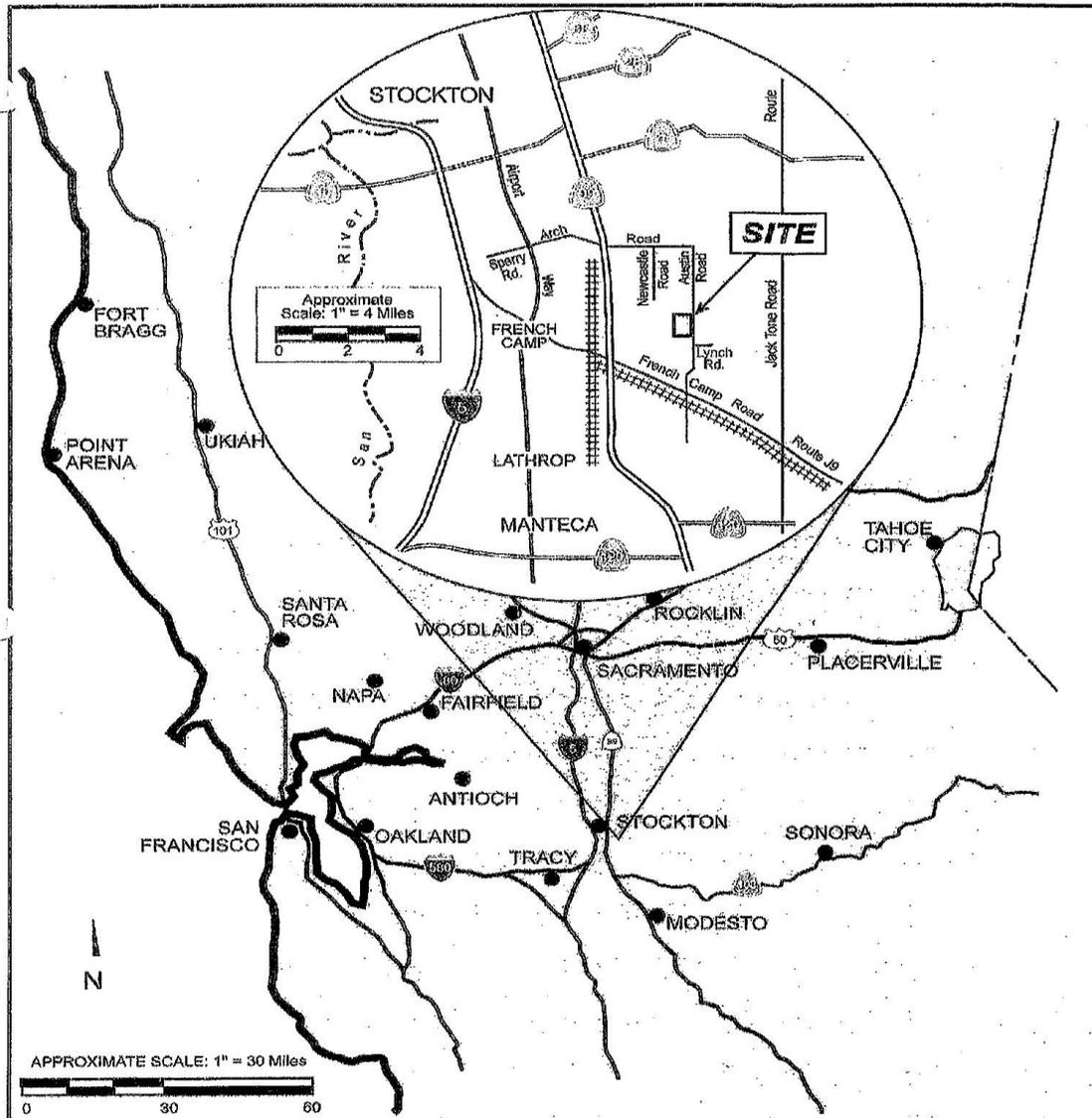
4. Nothing in Part VI of the Permit shall be construed to limit or otherwise affect the Permittee's liability and obligation to perform corrective action including corrective action beyond the facility boundary, notwithstanding the lack of access. DTSC may determine that additional on-site measures must be taken to address releases beyond the Facility boundary if access to off-site areas cannot be obtained.

**APPENDIX A:  
FORWARD LANDFILL SITE LOCATION MAP**

**APPENDIX B:  
WMU-A UNIT SITE MAP**

**APPENDIX C:  
WMU-A UNIT GROUNDWATER MONITORING SYSTEM MAP**

APPENDIX A



		SITE LOCATION MAP	PLATE
		FORWARD LANDFILL SAN JOAQUIN COUNTY, CALIFORNIA	1
Drawn By: JPITMAN Project No.: 23-483849-E02	Date: 09/07/00 Filename: 2234F.DWG		

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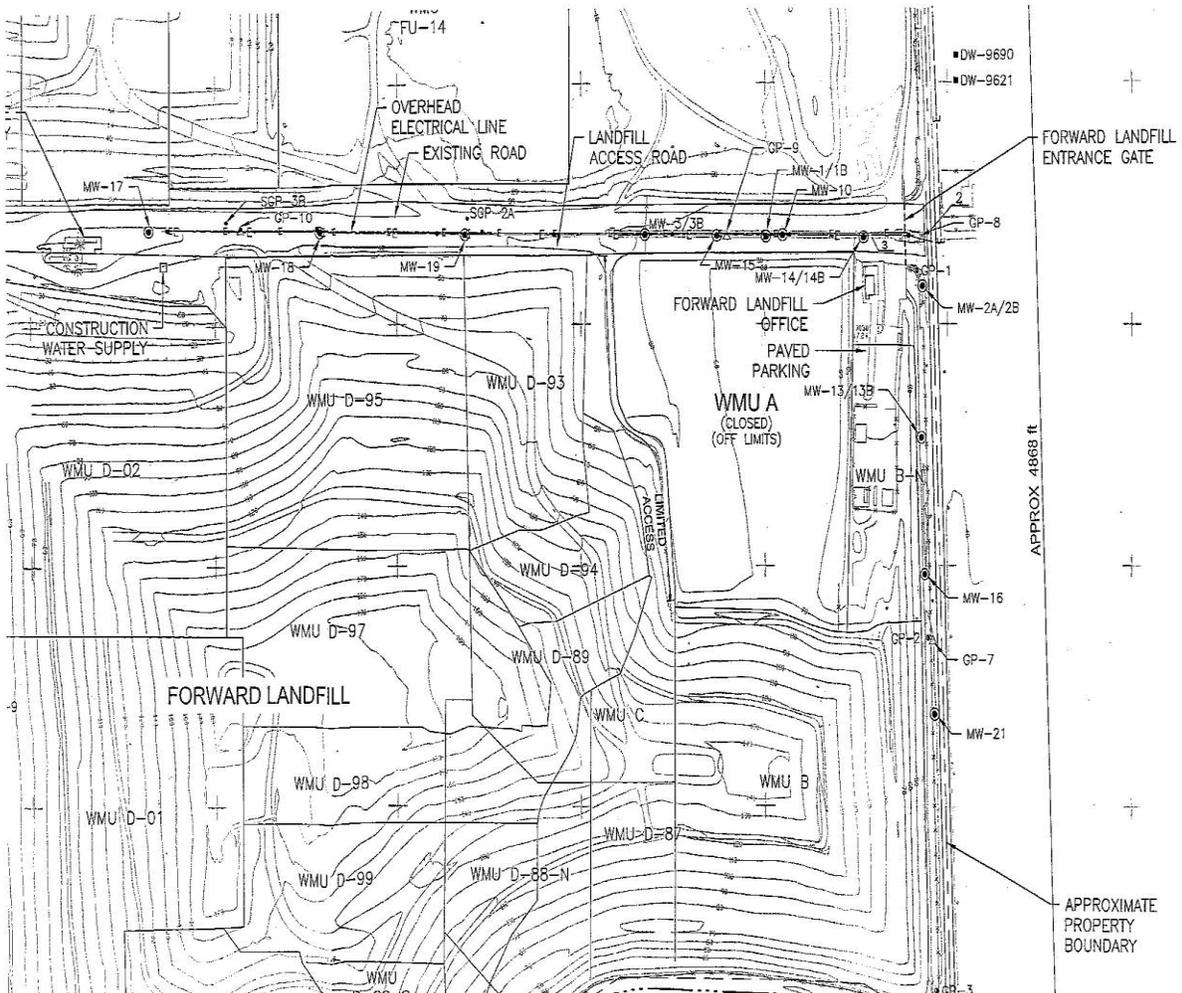
**APPENDIX B**



**WMU-A SITE MAP**



APPENDIX C



**WASTE MANAGEMENT UNIT A (WMU-A)  
GROUNDWATER MONITORING SYSTEM MAP  
(NOT TO SCALE)**