

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2008-0008
WDID NO. 6B260300001

REVISED WASTE DISCHARGE REQUIREMENTS
FOR

MONO COUNTY WASTE SYSTEMS DIVISIONS
BENTON CLASS III LANDFILL

Mono County

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Discharger

For the purpose of this Water Board Order (Order), the County of Mono is referred to as the "Discharger."

2. Facility

For the purposes of this Order, the Benton Class III Landfill is referred to as the "Facility." The Facility, established in 1973, is a municipal solid waste landfill located on 10 acres approximately 2,000 feet east of the junction of U.S. Route 6 and State Highway 120, near the community of Benton, and is located at the NW ¼, NW ¼, SE ¼ of section 32, T1S, R32E, MDB&M as shown on Attachment A, which is made part of this order.

3. Order History

The Water Board previously adopted Waste Discharge Requirements (WDRs) for the Facility under Board Order No. 6-72-51, which was adopted on August 10, 1972. Board Order No. 6-93-100-30 was adopted on September 9, 1993, and amended the WDRs to incorporate the requirement of Title 40, Code of Federal Regulations, part 257 and 258 (Subtitle D) as implemented in California under State Water Resources Control Board (State Board) Resolution No. 93-62. Board Order No. 6-72-51-A1 amended Board Order No. 6-72-51 and was adopted on September 14, 1995. The last revised Board Order No. 6-01-57 was adopted on October 10, 2001, as part of a periodical review to achieve compliance with California Code of Regulation (CCR) requirements in Title 27.

4. Reason for Action

The Water Board is revising these WDRs to reflect the closure of the Facility and to require the Discharger to achieve compliance with the requirements of Section 20385, Section 20415, Section 20420, Section 20950, and Section 21090, Title 27, CCR. The site stopped receiving waste in September of 2003. Also the Discharger submitted a Final Closure and Post Closure Maintenance Plan to the Water Board on March 5, 2007, California Integrated Waste Management and the Local Enforcement agency (Mono County Environmental Health Program). The Plan is a Joint Technical document and is considered equivalent to a Report of Waste Discharge. This Order will prescribe proper closure requirements, which differ from the present requirements.

This Order will remain in effect until it is determined there are no water quality problems or threat to water quality, or until new regulatory requirements are issued.

5. Description of the Facility

Since established in 1973, the disposal practice at the Facility was to place waste in 15-foot deep trenches and subsequently cover the waste with soil. Approximately 17,500 cubic yards of waste and cover soils are buried at the site. When the last trench reached its capacity in September 2003, Mono County ceased accepting waste for disposal at the Facility.

6. Waste Classification

The Facility received waste derived from the community of Benton. The waste is defined in Sections 20220 and 20230, Title 27, CCR, as inert and non-hazardous solid waste, respectively.

7. Waste Management Unit Classification

Pursuant to Section 20260, Title 27, CCR, the Facility is classified as a Class III waste management unit.

8. Water Quality Protection Standard

The Water Quality Protection Standard (WQPS) consists of constituents of concern (including monitoring parameters), concentration limits, monitoring points, and the point of compliance. The standard applies over the active life of the Facility, closure and post-closure maintenance period, and the compliance period. The constituents of concern, monitoring points, and point of compliance are described in Monitoring and Reporting Program R6V-2007-0008, which is attached to and made a part of this Order.

9. Data Analysis Methods

A data analysis method of reviewing the collected monitoring data is necessary for the earliest possible detection of a significant release of waste from the Facility. Section 20420, Title 27, CCR requires a method to analyze the monitoring data. Monitoring and Reporting Program No. R6V-2008-0008 requires the Discharger to submit a method to review the collected monitoring data.

10. Detection Monitoring

Pursuant to Section 20385, Title 27, CCR, the Discharger has been conducting a Detection Monitoring Program (DMP). The current DMP is designed to monitor the ground water for evidence of a release.

11. Evaluation Monitoring

An Evaluation Monitoring Program (EMP) is required, pursuant to Section 20425, Title 27, CCR, to evaluate evidence of a release if detection monitoring and/or verification procedures indicate evidence of a release.

12. Corrective Action

A Corrective Action Program (CAP) to remediate detected releases from the Facility may be required pursuant to Section 20430, Title 27, CCR, if results of an EMP warrant a CAP.

13. Site Geology

The Facility is situated in a valley between the Sierra Nevada mountain range to the west and the White Mountains to the east and is underlain by coalescing Quaternary alluvial fan deposits that extend to more than 200 feet below ground surface (bgs). Sediments beneath the Facility consist of sandy gravel, sand and silty sand. The topography slopes west toward the community of Benton.

14. Site Hydrogeology

The ground water beneath the Facility is found in unconsolidated sandy gravel to gravely sand materials ranging in depth from approximately 116 to 166 feet bgs. Ground water beneath the Facility flows southwest at a gradient of 0.01 feet per feet.

15. Site Surface Hydrology and Storm Water Runoff

There is no perennial surface water flow at the site. All storm water up gradient of the Facility is to be routed around the Facility. All storm water from the Facility is to be regulated under the State Amended General Industrial Activities Storm Water NPDES Permit.

16. Site Topography

The land generally slopes to the west. Site topography is shown on Attachment B, which is made a part of this Order.

17. Climate

The annual precipitation in the area of the Facility is approximately 8 inches and the annual evaporation rate is approximately 70 inches as reported in the Report of Waste Discharge.

18. Land Uses

The land uses surrounding the Facility consists of open space with no residence or commercial building within 1000 feet of the Facility. The community of Benton is located approximately 2,000 feet west of the Facility.

19. Closure and Post-Closure Maintenance

On March 5, 2007, the Discharger submitted a Final Closure and Post-Closure Monitoring Plan (CPCMP). The Final CPCMP proposes in-place closure of the waste and an extended period of site monitoring. The Final CPCMP for the Facility consists of an alternative cover system to the prescriptive standard. In May 2005, the Discharger's consultant submitted an Alternative Final Cover Demonstration Report. Water Board staff accepted the alternative cover as adequate to protect water quality (primarily due to the low rainfall and high evaporation rates of the area) in a letter dated October 18, 2005. The cover system is composed of a one-foot thick foundation layer composed of select soil materials, and a three and a half-foot thick layer of select soil that comprises the vegetative cover layer. The alternative cover will meet or exceed the prescribed performance criteria and will be more economical for site closure than prescriptive standards. The monitoring media includes the landfill gas in the unsaturated zone, ground water, and final cover materials.

This Order is the Water Board's approval of the Final CPCMP. This Order requires that the Discharger review the plan annually to determine if significant changes in the operation of the Facility warrant an update of the plan.

20. Financial Assurance

The Discharger must provide documentation that a financial assurance fund has been developed for post-closure maintenance and potential corrective action requirements. The fund must meet the requirements of Sections 22247 and 22245, Title 27, CCR for financial assurance. This Order requires the Discharger to report the amount of money available in the fund as part of an annual report. This Order also requires the Discharger to demonstrate in an annual report that the amount of financial assurance is adequate, or increase the amount of financial assurance.

21. Receiving Waters

The receiving waters are the ground waters of the Owens Valley Ground Water Basin (Department of Water Resources Basin No. 6-12).

22. Lahontan Basin Plan

The Water Board adopted a Water Quality Control Plan for the Lahontan Basin (Basin Plan), which became effective on March 31, 1995. This Order implements the Basin Plan.

23. Beneficial Ground Water Uses

The present beneficial uses of the ground waters of the Owens Valley as defined in the Basin Plan are:

- a. municipal and domestic supply (MUN);
- b. agricultural supply (AGR);
- c. industrial service supply (IND);
- d. freshwater replenishment (FRSH); and
- e. wildlife habitat (WILD).

24. California Environmental Quality Act

The action to revise waste discharge requirements for this facility involves only the change of status for the closed facility and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) in accordance with Section 15301 of the CEQA Guidelines. Section 15301 applies, in part, because the change of status for the closed Benton Landfill does not involve any expansion of use.

25. Notification of Interested Parties

The Water Board has notified the Discharger and all known interested agencies and persons of its intent to adopt revised WDRs for the project.

26. Consideration of Interested Parties

The Water Board, in a public meeting held on March 12, 2008 heard and considered all comments pertaining to the discharge.

27. Storm Water Discharges

The Discharger has filed for coverage under the General Storm Water WDRs (Board Order No. 97-03-DWQ). The WDID number assigned to that permit is 6B36S304004.

IT IS HEREBY ORDERED that the Discharger must comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Receiving Water Limitations

Discharges from the Facility must not cause a violation of any applicable water quality standard for receiving water adopted by the Water Board or the State Board as required by the Federal Water Pollution Control Act, the California Water Code and regulations adopted thereafter. The discharge must not cause the presence of the following substances or conditions in ground waters of the Owens Valley Ground Water Basin:

1. Bacteria-In ground waters designated as MUN, the median concentration of coliform organisms over any seven-day period must be less than 1.1/100 milliliters.
2. Chemical Constituents - Ground waters designated as MUN must not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference in this order: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (SMCLs - Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This incorporation-by-reference is prospective including future changes to incorporated provisions as the changes take effect.
3. Radioactivity - Ground waters must not contain concentrations of radionuclides in excess of limits specified in Table 4 of Section 64443 (radioactivity), Title 22, CCR. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.
4. Taste and Odors - Ground waters must not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as MUN, at a minimum, concentrations must not exceed adopted SMCLs specified in Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels - Consumer Acceptance Limits) and Table 64449-B of Section 64449 (SMCLs - Consumer Acceptance Contaminant Level Ranges), Title 22, CCR. This incorporation-by-reference is prospective including future changes to incorporated provisions as the changes take effect.

II. REQUIREMENTS AND PROHIBITIONS

A. General

1. The discharge must not cause pollution, or a threatened pollution, as defined in Section 13050 of the California Water Code.
2. The discharge must not cause a nuisance as defined in Section 13050 of the California Water Code.
3. The discharge of solid wastes, leachate, or any other deleterious material to the ground waters of the Owens Valley Ground Water Basin is prohibited.
4. The closed disposal site must be protected from inundation, washout, or erosion of wastes and erosion of covering materials resulting from a storm or a flood having a recurrence interval of once in 100 years.
5. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources must not contact or percolate through solid wastes discharged at the site.
6. The exterior surfaces of the closed disposal site must be graded to promote lateral runoff of precipitation and to prevent ponding.
7. Water used for dust control operations must be limited to a minimal amount. A "minimal amount" is defined as that amount which will not result in runoff.
8. All water used for dust control must not contain detectable concentrations of volatile organic compounds.
9. The Discharger must remove and relocate any waste that is or has been discharged at the closed disposal site in violation of these requirements.
10. At any given time, the concentration limit for each constituent of concern must be equal to the background value of that constituent.
11. The concentration limits for each constituent of concern must not be exceeded.

B. Detection Monitoring Program

The Discharger must maintain a DMP as required in Section 20420, Title 27, CCR.

C. Evaluation Monitoring Program

The Discharger must maintain the EMP as long as there is statistically significant evidence of a release from the Facility as required in Section 20425, Title 27, CCR.

D. Corrective Action Program

The Discharger must institute a CAP when required pursuant to Section 20430, Title 27, CCR, if the results of the EMP warrant a CAP.

III. DATA ANALYSIS

A. Analysis Method

The Discharger must propose as part of the monitoring and reporting program a method to analyze the monitoring data collected. The method may either be statistical or non-statistical in accordance with Section 20415, Title 27, CCR. If a measurable significant detection occurs, the following verification procedure must be implemented.

B. Verification Procedures

1. The Discharger must immediately initiate verification procedures as specified below whenever there is a determination by the Discharger or Water Board Executive Officer that there is statistical or non-statistical evidence of a release. If the Discharger declines the opportunity to conduct verification procedures, the Discharger must submit a technical report as described below under the heading Technical Report Without Verification Procedures.
2. The verification procedure must only be performed for the constituent(s) that has shown evidence of a release, and must be performed for those monitoring points at which a release is indicated.
3. The Discharger must either conduct a composite retest using data from the initial sampling event with all data obtained from the resampling event or must conduct a discrete retest in which only data obtained from the resampling event must be analyzed in order to verify evidence of a release.
4. The Discharger must report to the Water Board by certified mail the results of the verification procedure, as well as all concentration data collected for use in the retest, within seven days of the last laboratory analysis.

5. The Discharger must determine, within 45 days after completion of sampling, whether there is statistically significant evidence of a release from the Facility at each monitoring point. If there is statistically significant evidence of a release, the Discharger must immediately notify the Water Board by certified mail. The Executive Officer may make an independent finding that there is statistical evidence of a release.
6. If the Discharger or Executive Officer verifies evidence of a release, the Discharger is required to submit, within 90 days of a determination that there is or was a release, a technical report pursuant to Section 13267(b) of the California Water Code. The report must propose an EMP **OR** make a demonstration to the Water Board that there is a source other than the Facility that caused evidence of a release.

C. Technical Report Without Verification Procedures

If the Discharger chooses not to initiate verification procedures, a technical report must be submitted pursuant to Section 13267(b) of the California Water Code. The report must propose an EMP, **OR**, make a demonstration that the release did not originate from the Facility.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Order No. 6-01-57 is hereby rescinded.

B. Closure Plan Approval

The Final CPCMP dated March 2, 2007, which includes an alternative final cover, is approved. Alternative final covers are allowed pursuant to Section 21090(a), Title 27, CCR.

C. Standard Provisions

The Discharger must comply with the "Standard Provisions for Waste Discharge Requirements," dated September 1, 1994, in Attachment C, which is made part of this Order.

D. Monitoring and Reporting

1. Pursuant to the California Water Code Section 13267(b), the Discharger must comply with the Monitoring and Reporting Program No. R6V-2008-0008 or as specified by the Executive Officer. The Discharger must install four landfill gas wells, five settlement monuments, and two survey control monuments as specified in

Section 3.8 of the Final CPCMP.

2. The Discharger must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

E. Completion Monitoring

The Final CPCMP must be updated if there is a substantial change in operations. A report shall be submitted annually indicating conformance with existing operations.

V. TIME SCHEDULE

A. Known or Reasonably Foreseeable Release Plan and Financial Assurance Documents

1. Known or Reasonably Foreseeable Release Plan

By December 31, 2008, the Discharger must submit a plan for addressing a known or reasonably foreseeable release (KRFR Plan) from the Facility in accordance with the requirements in Title 27, CCR. The KRFR Plan must include a cost estimate to implement the plan. The KRFR Plan and cost estimate to implement the plan must be prepared by, or under the supervision of, a California certified engineering geologist or a California registered civil engineer.

2. Financial Assurance Documents.

By January 15, 2009 the Discharger must submit Instruments of Financial Assurance acceptable to the Water Board and adequate to cover the costs of a known or reasonably foreseeable release from the Facility.

B. Closure Certification Report

Pursuant to Section 21880, Title 27, CCR, the Discharger must submit to the Water Board a certification, under penalty of perjury, that the solid waste landfill has been closed in accordance with the Final CPCMP and the Construction Quality Assurance (CQA) plan. The certification, which must include any other documentation as necessary to support the certification, must be incorporated into the CPCMP. This report must be submitted to the Water Board no later than 180 days after completion of construction activities. The certification must be completed by a California registered civil engineer or a California certified engineering geologist and include a report with supporting documentation.

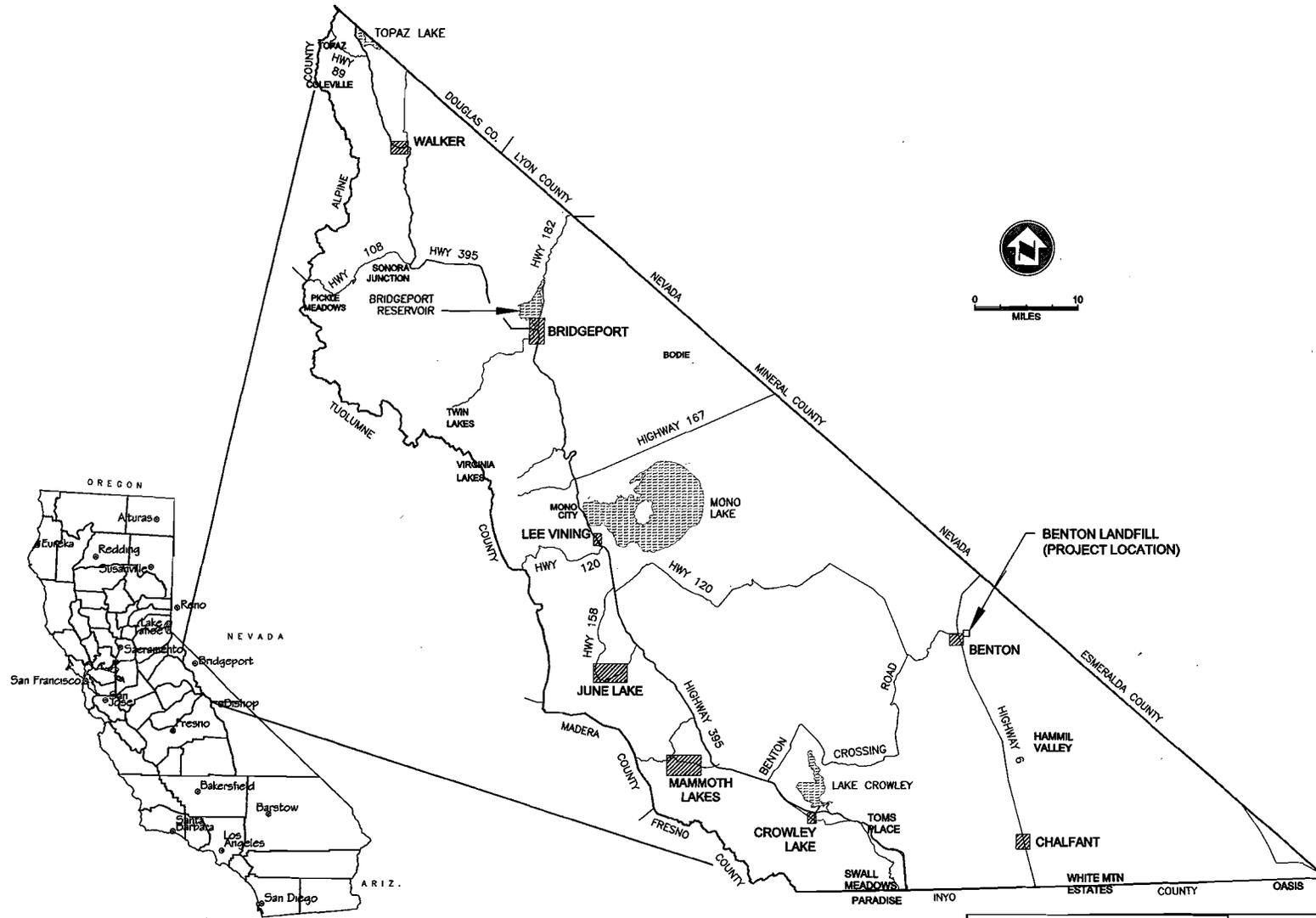
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by California Regional Water Quality Control Board, Lahontan Region, on March 12, 2008.



HAROLD J. SINGER
EXECUTIVE OFFICER

- Attachments:
- A. Location Map
 - B. Landfill Footprint of Waste
 - C. Standard Provisions for Waste Discharge Requirements

Attachment A Location Map



MAP DERIVED FROM MONO COUNTY PUBLIC WORKS
DEPARTMENT DRAWING SITE LOCATION MAP

Prepared For: COUNTY OF MONO DEPARTMENT OF PUBLIC WORKS	Project: SRK Consulting <small>Engineers and Scientists</small> <small>1401 Hill Road, Suite 200 Fresno, CA 93720 774-880-0000</small>	
	Revision Date: 10/02/07 Scale: AS SHOWN Project Number: 140905 Drawing: Hazardous Site	Sheet No. 1 of 1 Figure No. 1

ATTACHMENT C

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

- e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.
- f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. R6V-2008-0008
WDID NO. 6B260300001

FOR

MONO COUNTY WASTE SYSTEMS DIVISIONS
BENTON CLASS III LANDFILL

Mono County

I. WATER QUALITY PROTECTION STANDARD

A Water Quality Protection Standard is required by Title 27 of the California Code of Regulations (CCR) to assure the earliest possible detection of a release from the Benton Landfill (Facility) to the underlying soil and/or ground water. The Water Quality Protection Standard shall consist of the list of constituents of concern, the concentration limits, the Point of Compliance and all Monitoring Points. This Water Quality Protection Standard shall apply during the closure period, the post-closure maintenance period, and during any compliance period. The Facility is currently in the post-closure maintenance period and under a Detection Monitoring Program (DMP). This Monitoring and Reporting Program maintains the DMP for the closed Facility.

II. MONITORING

The Discharger has developed a DMP as required by Section 20420 of Title 27, CCR. The DMP for the Facility includes monitoring of the landfill cover, vadose zone, and ground water.

A. Landfill Cover Monitoring and Maintenance

The Discharger will install an alternative final cover over the closed Facility. On top of the cover material will be a final dressing of wood chips that will be maintained until vegetation becomes established. The cover material will be graded to a slope, which is intended to promote runoff and prevent ponding. The Discharger must inspect the cover quarterly and provide reports on the inspections in the **semiannual** monitoring reports. The quarterly inspection must consist of the following:

1. The Discharger must inspect the cover for signs of erosion and inspect the wood chip covering material.
2. The Discharger must walk the surface of the closed landfill with a hand-held gas detection monitor to search for the presence of methane. If the presence of methane is detected the Discharger shall inform the local enforcement agency and the Water Board.

3. The Discharger must also inspect the general integrity of the closed landfill for signs of settlement, subsidence, and erosion.
4. The Discharger must inspect the drainage system for the entire site including that which will divert water from the closed landfill and prevent run on to the site.
5. Any adverse conditions found in the visual inspection must be documented, corrected and the documents on the correction must be submitted with each semiannual report.

In addition to the above cover inspection, subsidence monitoring will be monitored by seven survey markers the Discharger will install. The survey markers must be surveyed at a minimum of once every five years to determine if settling in the Facility's closed waste pile is occurring. For reporting in the annual reports, if no survey is conducted in a given year, the year the last survey was conducted and the year for the next required survey will be identified in the annual report.

B. Vadose Zone Gas Monitoring

Vadose Zone Gas monitoring will be conducted on a quarterly basis and reported in the semiannual reports.

1. Monitoring Points

The Discharger will install four gas monitoring wells to monitor the vadose zone. Each gas monitoring well will be installed with two or three probes. The proposed locations of the soil-gas probes are shown on Attachment A of this Monitoring and Reporting Program.

2. Monitoring Parameters and Constituents of Concern

The monitoring parameters for soil gases are methane, carbon dioxide, and oxygen. The constituents of concern are the monitoring parameters and the volatile organic constituents listed under the laboratory analytical method EPA T014.

3. Concentrations Limits

The concentration limits for all constituents of concern in soil gas shall be the method detection limit. The monitoring parameters shall not be required to have concentration limits because these parameters exist naturally in soil gas and development of background concentrations would be technically infeasible.

C. Ground Water

The Facility presently has four ground water monitoring wells to monitor the ground water quality. There is one up gradient monitoring well, MW-2, and three down gradient wells, MW-1, MW-3, and MW-4 that are used to detect potential release from the Facility. Attachment A shows the location of the four monitoring wells.

1. Point of Compliance and Monitoring Points

The Point of Compliance as defined in Section 20405, Title 27, CCR is "a vertical surface located at the hydraulically down gradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit." Ground water monitoring wells have been installed up gradient and down gradient (point of compliance monitoring wells MW1, MW-3, and MW-4) of the Facility as part of the DMP. The locations of the ground water monitoring wells are illustrated on Attachment A, which is made part of this Monitoring and Reporting Program.

2. Aquifer characteristics

The parameters listed in Table 1.a. must be measured and reported in tabular form semiannually. The required information to be calculated from the measured parameters is listed below in Table 1.b. An area map must be included to show the ground water flow direction and estimated ground water gradient.

Table No. 1.a.
Ground and Surface Water Field Measurements

<u>Parameter</u>	<u>Units</u>
Depth to Ground Water	feet below ground
Electrical Conductivity	micromhos/cm
pH	pH Units
Temperature	degree F or C
Turbidity	NTUs

Table 1.b.
Ground Water Calculations

<u>Parameter</u>	<u>Units</u>
Static Water Level	feet above mean sea level
Slope of Ground Water Gradient	feet per foot
Direction of Ground Water Gradient	degrees from true north

3. Purging of ground water

Ground water samples must be collected after at least three well volumes have been removed, or once the temperature, electrical conductivity, and pH measurements have stabilized to approximately $\pm 10\%$ for each successive well volume removed. Well volume is the volume of water in the submerged portion of a well casing.

4. Constituents of Concern and Sampling Frequency

The monitoring parameters for the ground water are various metal surrogates chloride, sulfate, nitrate as nitrogen, total dissolved solids, and volatile organic constituents as defined by Appendix I of 40 Code of Federal Regulations, Part 258. The constituents of concern are the monitoring parameters and those constituents listed in Appendix II of 40 CFR, Part 258.

The sampling of the ground water for the various constituents of concern will be sampled in the following frequency:

- i. Ground water sampling collected and reported semiannually (twice per year):

- Chloride
 - Total dissolved solids
 - Nitrate as nitrogen
 - Sulfate

- ii. Ground water sampling analysis required to be done once every five years. This list is from Appendix II of 40 Code of Federal Regulations Part 258 list of pollutants required to be monitored at the Facility on a minimum frequency of once every five years. The following constituents will be reported in the annual report. For reporting in the annual reports, if no samples are collected then the year the last samples were collected and the year for the next required sampling will be identified in the report.

<u>Compounds</u>	<u>Test Method</u>
Volatile organic compounds	EPA 8260
Semi-volatile organics	EPA 8270
Organophosphorus pesticides	EPA 8140 or 8414
Chlorinated herbicides	EPA 8150
Organochlorine Pesticides and Polychlorinated Biphenyls	EPA 8080

Ethylene dibromide (EDB) and
Dibromochloropropane (DBCP)

EPA 504

Cyanide and sulfide

EPA 9010/9030

III. DATA ANALYSIS

The Discharger shall develop and propose a method to review the data collected (historical and future) to determine whether a release has or is occurring from the closed Facility. The Data Analysis Report must be submitted **October 1, 2008**, for the acceptance by the Water Board's Executive Officer. The Analysis method must use one of the following criteria listed below

A. General Statistical Analysis Method

The report titled "Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities" (U.S. EPA, 1989) may be used to select the statistical test to use for comparing detection monitoring well data to background monitoring data. If more than 50 percent of the observations in the detection monitoring wells are below the detection limit, then the Test of Proportions will be used. If more than 50 percent are above the detection limit, then a One-Way Analysis of Variance (ANOVA) will be used (i.e., Bartlett's Test for Equality of Variances). For multiple well computations the computed F Statistic will be compared to the tabulated F Statistic at the five (5) percent significance level. If the calculated F value exceeds the tabulated value, then the hypothesis of equal means will be rejected. The Bonferroni t-Statistics will be computed to determine if the significant F is due to differences between background and compliance wells at the five (5) percent significance level.

B. Site Specific Statistical Analysis Method

The Discharger may propose a method for site-specific data statistical analyses, which are different than the general statistical analyses methods listed above provided that such methods are capable of determining a statistically significant release from the Landfill in accordance with Section 20415, Title 27, CCR.

C. Nonstatistical Method

A nonstatistical method to evaluate the water quality data may be proposed. The method must comply with standards described in Section 20415 (e)(8)(E), Title 27, CCR. The method must demonstrate and describe the criteria to be used to determine a "measurably significant" (as defined in Section 20164, Title 27, CCR) detection that may indicate a release.

If a non-statistical method is selected, the following information must also be

submitted:

1. Time series plots

Each semiannual report must include a time series plot for each ground water constituent analyzed on a semiannual basis. Evidence of a release may include trends of increasing concentrations of one or more constituent over time.

Each annual report must include cumulative time series plots for each ground water constituent that is sampled for on annual or bi-annual bases (every other year).

2. Physical Evidence

Physical information such as vegetation loss, soil discoloration, any changes in ground water elevation and surface gas monitoring must be provided in the semiannual reports.

IV. REPORTING REQUIREMENTS

A. Semiannual Reports To Be Filed With The Water Board

All monitoring reports submitted to the Water Board shall be transmitted using the cover letter form in Attachment C. An electronic copy of the cover letter form can be downloaded at:

<http://www.swrcb.ca.gov/rwqcb6/AvailDocs.htm>.

The following periodic reports shall be submitted to the Water Board as specified below:

Semiannual Detection Monitoring Reports

Two Semiannual reports are required per year, as follows:

<u>Report due date</u>	<u>Reporting Period</u>
February 15	July 1- Dec 31
August 15	January 1 – June 30

The reports must contain the following information

1. Results of sampling and laboratory analysis of gas and ground water sampling.
2. A map or aerial photograph showing the locations of monitoring points.

3. For each monitored ground water body, a description and graphical presentation of the velocity and direction of ground water flow under and around the Facility, based upon water level elevations taken during the collection of the water quality data submitted in the report.
4. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting this schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal.
5. The reports must contain a description of the conditions of the cover materials. Specifically, comments regarding any subsidence or soil cover washouts that have occurred and the capability of the cover to promote runoff and prevent ponding should be included. In the case where subsidence, washouts or other damage to the cover is noted, the report shall indicate the actions taken to repair cover material so that the event will not reoccur.
6. An Executive Summary must accompany each report. The summary shall include a discussion of any requirement violations found since the last report was submitted, and shall describe actions taken or planned for correcting those violations.

B. Other Reports To Be Filed With The Board

1. Notice of Tentative Release

If the appropriate statistical or non-statistical data analysis indicate, for a given constituent of concern, that a release is tentatively identified, Discharger shall:

- a. Immediately notify the Water Board verbally as to the monitoring point(s) and constituent(s) or parameter(s) involved;
- b. Provide written notification by certified mail within seven days of such determination (Section 20420(j), Title 27, CCR). The notification should indicate the Discharger's intent to conduct verification sampling, initiate evaluation monitoring procedures, or demonstrate that a source other than the Landfill is responsible of the release.
- c. If the Discharger chooses to attempt to demonstrate that a source other than the Facility is responsible for the release, the Discharger shall submit a supporting technical report within 90

days of detection of the release.

2. Evaluation Monitoring

The Discharger shall, within 90 days of verifying a release, submit a technical report pursuant to Section 13267(b) of the California Water Code proposing an Evaluation Monitoring Program (EMP). If the Discharger decides not to conduct verification procedures, or decides not to make a demonstration that a source other than the Facility is responsible for the release, the release will be considered verified.

3. Engineering Feasibility Study Report

The Discharger shall, within 180 days of verification of a release or detection, submit an Engineering Feasibility Study that shall contain either corrective action measures that could be taken to achieve background concentration or demonstrate that the facility is not the cause of the detection.

4. Data Analysis Report

The Discharger shall, by October 1, 2008, submit a Data Analysis Report as specified in Section III (Data Analysis) of this Monitoring and Reporting Program.

C. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.

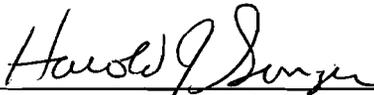
D. Annual Report

On or before **January 31, 2009**, and on **January 31** every year thereafter, the Discharger shall submit an annual report to the Water Board for the period January to December. This report shall include the items described in the General Provisions for Monitoring and Reporting (Attachment B) and information that is required to be collected annually or less frequently.

E. Financial Assurance

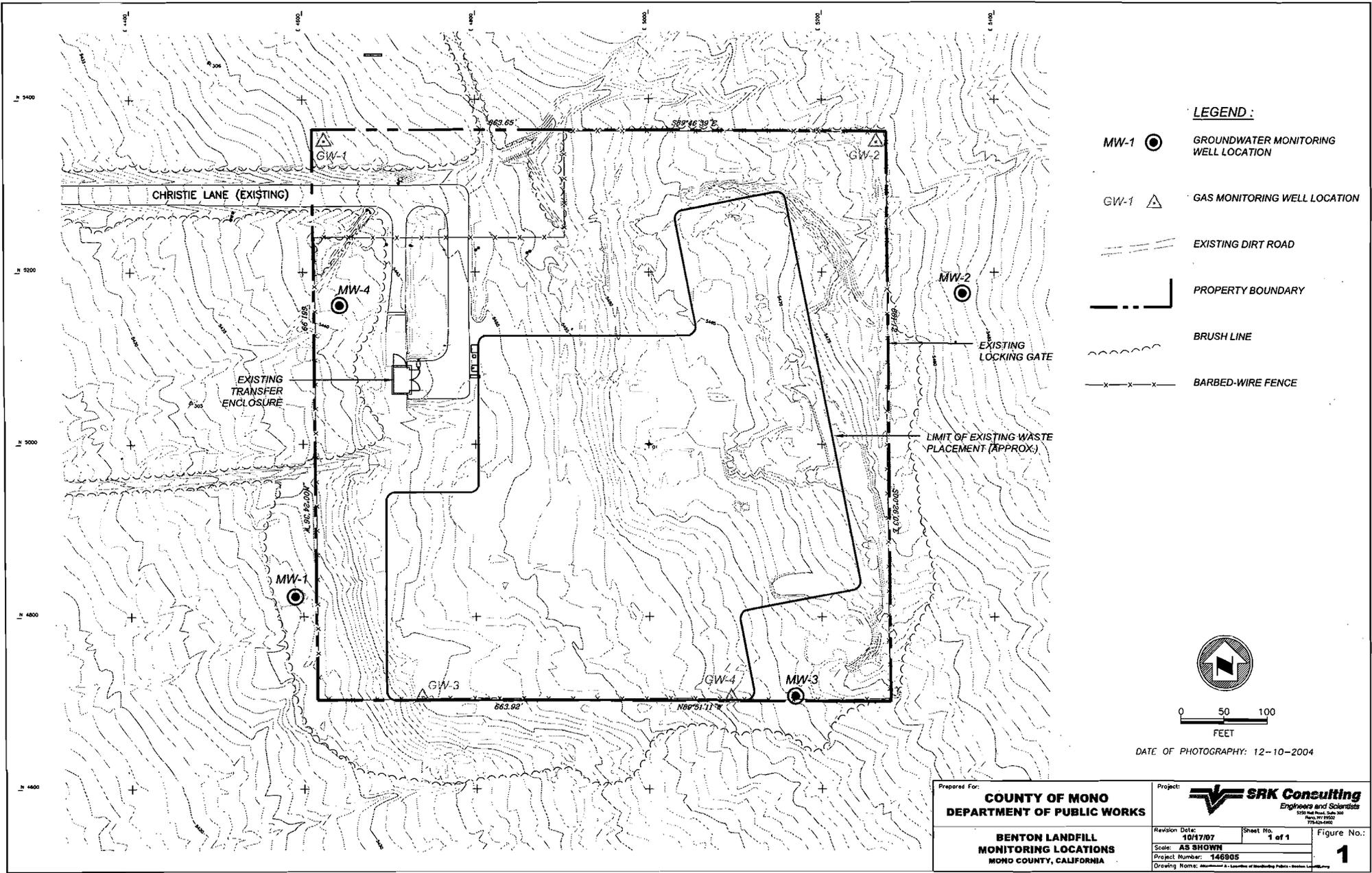
On or before **January 31, 2009**, and before **January 31** every year thereafter the Dischargers shall submit an annual financial assurance report to the Water Board. This report shall summarize the amount of money available in the fund. This report should also provide a demonstration that the amount of financial assurance is adequate, or the need to increase the amount of

financial assurance based on inflation or other factors.

Ordered by: 
HAROLD J. SINGER
EXECUTIVE OFFICER

Dated: March 12, 2008

- Attachment: A. Location of monitoring points
B. General Provisions for Monitoring and Reporting
C. Transmittal Cover Letter Form



LEGEND:

- MW-1 GROUNDWATER MONITORING WELL LOCATION
- GW-1 GAS MONITORING WELL LOCATION
- EXISTING DIRT ROAD
- PROPERTY BOUNDARY
- BRUSH LINE
- BARBED-WIRE FENCE
- EXISTING LOCKING GATE



0 50 100
FEET

DATE OF PHOTOGRAPHY: 12-10-2004

Prepared For:	COUNTY OF MONO DEPARTMENT OF PUBLIC WORKS	Project:	 SRK Consulting Engineers and Scientists 550 Redwood, Suite 300 Menlo Park, CA 94025 775-424-1860
	BENTON LANDFILL MONITORING LOCATIONS MONO COUNTY, CALIFORNIA	Revision Date:	10/17/07
		Scale:	AS SHOWN
		Project Number:	146905
		Drawing Name:	Attachment B - Location of Monitoring Points - Benton Landfill.dwg
		Sheet No.:	1 of 1
		Figure No.:	1

Attachment A - Location of Monitoring Points

ATTACHMENT "B"
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board Executive Officer prior to use.
- d. The discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

- a. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- c. The discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
 - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
 - ii. In the case of a partnership, by a general partner;
 - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number 6A265300900.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

T:FORMS/M&R PROVISIONS