

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**MEETING OF MAY 13 and 14, 2009
South Lake Tahoe**

ITEM: 10

SUBJECT: **REVISED WASTE DISCHARGE REQUIREMENTS FOR
COUNTY OF MODOC, FORT BIDWELL LANDFILL,
MODOC COUNTY**

CHRONOLOGY: August 23, 1973 Waste Discharge Requirements
(WDRs) – Adopted (Board Order No.6-
73-118)

February 19, 1987 Revised WDRs – Adopted (Board
Order No. 6-87-22)

September 9, 1993 Amended Waste Discharge
Requirements – Adopted (Board Order
No. 6-93-100-07)

ISSUE: Should the Board adopt Waste Discharge Requirements and
a Monitoring and Reporting Program (MRP) that prescribes
post-closure requirements for the Fort Bidwell Landfill?

DISCUSSION: The Fort Bidwell City Landfill is owned and has been
operated by the County of Modoc. For purposes of this
Order the County of Modoc is referred to as the Discharger.

The Landfill was established in 1973 and ceased accepting
waste for disposal in October 1993. The Landfill received
approximately 220 tons of waste annually from the town of
Fort Bidwell. Approximately 0.65 acres of the 12.8-acre site
have been used for disposal operation. Currently, municipal
solid waste received at the site is transferred to the Alturas
Transfer Station and then hauled to the Lockwood Landfill,
east of Sparks, Nevada

In August 1998, the Discharger submitted a Final Closure
and Post-Closure Monitoring Plan that proposed in-place
closure of the waste utilizing an alternative cover design
using a geosynthetic clay liner which is overlain by two feet
of native soil material. The landfill completed closure
construction in 2004 and the Final Closure Completion

10-0001

Report was accepted by the Executive Officer in November 2007.

To monitor potential releases from the closed landfill, three groundwater monitoring wells are monitored semiannually. The MRP requires the Discharger to conduct semiannually monitoring, and post-closure maintenance on the native soil cover.

Water Board staff recommends that these Revised (Post-Closure) WDRs remain in effect until it is determined there are no water quality problems, or threat to water quality.

Water Board staff has solicited comments from the Discharger and interested parties. All comments received have been addressed.

**RECOMMEN-
DATION:**

Adoption of Order as proposed.

Enclosure:

1. Proposed Board Order

ENCLOSURE 1

10-0003

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6T-2009-(PROPOSED)
WDID NO. 6A250008000

REVISED WASTE DISCHARGE REQUIREMENTS
FOR

COUNTY OF MODOC
FORT BIDWELL LANDFILL

Modoc County

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

1. Discharger

The Fort Bidwell Landfill has been operated by the County of Modoc. The County of Modoc is the land owner. For the purpose of this Water Board Order (Order), the County of Modoc is referred to as the "Discharger."

2. Landfill

For the purposes of this Order, the Fort Bidwell Landfill is referred to as the "Landfill." The Landfill was established in August 1973 to receive municipal wastes, construction wastes, household refuse and ashes, street refuse and agricultural waste. Septage and chemical toilet waste was not accepted. Landfill operations ceased in October 1993 and the Landfill was converted to a waste transfer station. The Landfill was capped using a geosynthetic clay liner cover in April 2004.

3. Permit History

Board Order No. 6-73-118 adopted August 23, 1973
Established Waste Discharge Requirements (WDRs) for the Landfill.

Board Order No. 6-87-22 adopted on February 19, 1987
Updated WDRs for the Landfill.

Board Order No. 6-93-100 adopted September 9, 1993
Amended the WDRs to incorporate the requirement of title 40, Code of Federal Regulations, Parts 257 and 258 (Subtitle D) as implemented in the State of California under State Water Resources Control Board (State Water Board) Resolution No. 93-62.

10-0004

4. Reason for Action

The Water Board is revising the WDRs to reflect the closure of the Landfill and to require the Discharger to achieve compliance with the post-closure requirements of Section 20164 and Section 20380, title 27, California Code of Regulations (27 CCR). This Order prescribes post-closure requirements, which differ from the present requirements. This Order also requires the Discharger to demonstrate the availability of financial resources to conduct post-closure maintenance activities.

5. Closure History

California Integrated Waste Management Board (CIWMB) approved the *Final Closure and Post-Closure Maintenance Plan (FCPCMP), Fort Bidwell Landfill*, on April 8, 2004. The FCPCMP was submitted in August 1998 with Addendums 1 and 2 dated May and December 2002, respectively.

The Landfill completed closure construction in 2004. The *Final Closure Completion Report and Certification*, dated October 2006, was accepted by CIWMB and the Solid Waste Local Enforcement Agency Representing Lassen, Modoc, Plumas and Sierra Counties (LEA) on November 13, 2006, and accepted by the Water Board's Executive Officer on November 5, 2007. The CIWMB considered the site formally closed and in the post-closure period on November 26, 2007. On December 26, 2007, the CIWMB released the remaining balance of Closure Funds to the Discharger.

6. Description of the Landfill

The Landfill is on 12.8 acres and the footprint of the waste is approximately 0.65 acres. The Landfill is located approximately 1 mile north of the community of Fort Bidwell (estimated population 100) on County Road 3, in Section 8, T46N, R16E, MDB&M, as shown on Attachments A and B, which are made part of this order.

The disposal practice at the Landfill was to place waste in trenches and subsequently cover the waste with soil. Average daily disposal was less than 1 ton per day. The average amount of waste received at the site was 220 tons annually. Approximately 20,000 cubic yards of waste and cover soils are buried at the site. Total depth or thickness of waste is less than 15 feet, including daily and intermediate soil cover.

Currently, municipal solid waste received at the site is transferred to the Alturas Transfer Station and then hauled to the Lockwood Landfill, east of Sparks, Nevada. On-site salvage operations include metals recovery and the separation of greenwaste and woodwaste. The Landfill's transfer station is open and manned two days a week.

To monitor potential releases from the closed landfill, three groundwater monitoring wells are monitored semiannually. Two downgradient monitoring wells (OB-1 and OB-2) have sufficient water to sample. Background monitoring well OB-3A is usually dry.

7. Waste Classification

The Landfill received waste derived from the community of Fort Bidwell. The waste is defined in 27 CCR section 20220 and section 20230 as inert and non-hazardous solid waste, respectively.

8. Waste Management Unit Classification

Pursuant to 27 CCR section 20260, the Landfill is classified as a Class III waste management unit.

9. Water Quality Protection Standard

The Water Quality Protection Standard 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 Landfill, 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 R6T-2009-(PROPOSED), which is attached to and made a part of this Order.

10. 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 Landfill. Title 27 CCR section 20420 requires a method to analyze the monitoring data. Monitoring and Reporting Program No. R6T-2009-(PROPOSED) requires the Discharger to submit a method to review the collected monitoring data.

11. Detection Monitoring

Pursuant to 27 CCR section 20385, 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.

12. Evaluation Monitoring

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

13. Corrective Action

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

14. Site Hydrogeology

The Landfill is situated in an area where Pleistocene nearshore lake deposits have been quarried for use as a road construction material. These deposits consist of a low to moderately permeable silty clay and gravel interval of unknown thickness. The groundwater beneath the Landfill is found in unconsolidated sandy gravel to gravelly sand materials. Nearby agricultural wells are screened down to 300 feet below ground surface. Water sampled in the Landfill's monitoring wells is believed to monitor a first encountered water-bearing zone (possibly seasonal) and not the regional water table.

Groundwater flow direction beneath the Landfill is likely easterly, toward the valley floor. The chemical composition of groundwater in the nearby valley area is generally of a calcium-sodium bicarbonate character and Total Dissolved Solids groundwater concentrations are less than 400 milligrams per liter. There is apparent hydraulic continuity between the site and the groundwater production area on the valley floor.

Surprise Valley is a seismically active region of California. The most prominent structural feature is the Surprise Valley fault which extends north of Fort Bidwell southerly along the base of the Warner Mountains for approximately 60 miles. The Fort Bidwell Landfill is less than ¼ mile west of the Surprise Valley Fault trace. It is unknown whether the fault has an influence on the regional water table elevations downgradient of the landfill.

15. Site Surface Hydrology

There is no perennial surface water flow at the site. The Landfill is within the Surprise Valley Hydrologic Unit 641.30. Upper Alkali Lake is approximately 3.5 miles south and downgradient of the Landfill.

16. Site Topography

The land generally slopes to the east and south. Site topography is shown on Attachment B.

17. Climate

The annual precipitation in the area of the Landfill is approximately 16 inches which mainly occurs in the winter months. Evapotranspiration for the area is approximately 43 inches per year.

18. Land Uses

There is one residence approximately 1,100 feet from the Landfill, southwest of the property boundary. Adjacent land use within 1,000 feet is open space, irrigated farmland and high desert rangeland.

19. Closure and Post-Closure Maintenance

The FCPCMP was submitted in August 1998 with Addendums 1 and 2 dated May and December 2002, respectively. The FCPCMP proposed consolidating and capping the waste, and an extended period of post closure maintenance.

The FCPCMP for the Landfill consisted of an alternative cover system that meets or exceeds the prescribed performance criteria. The alternative cover consists of a compacted two-foot thick foundation layer composed of select soil materials, overlain by a geosynthetic clay liner, which is overlain by a two-foot thick layer of select soil that comprises the vegetative cover layer. The Landfill cover was planted with native vegetation to encourage evapotranspiration. The Landfill was capped in accordance with the CIWMB and LEA approved FCPCMP.

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

20. Financial Assurance

The Discharger must obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases (27 CCR section 20380). This Order also requires the Discharger to demonstrate in an annual report that the amount of financial assurance is adequate.

21. Receiving Waters

The receiving waters are the ground waters of the Surprise Valley Ground Water Hydrologic Unit 641.30 (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 Surprise Valley Hydrologic Unit 641.30 as defined in the Basin Plan are:

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

24. California Environmental Quality Act

The action to revise waste discharge requirements for the Landfill involves only the change of status for the closed Landfill 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 Landfill does not involve any expansion of use.

25. Policy for Maintaining High Quality Waters

State Water Board Resolution No. 68-16 requires the Water Board, in regulating the discharge of waste, to (A) maintain existing high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that described in State or Regional Water Board policies; and (B) require that any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters must meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with

maximum benefit to the people of the State will be maintained.

Degradation of the quality of the waters of the State is not anticipated or authorized in the vicinity of the Landfill.

26. Storm Water Discharges

All storm water from the Landfill is to be regulated under the State Amended General Industrial Activities Storm Water National Pollutant Discharge Elimination System (NPDES) Permit, or a storm water permit for non-federal waters issued by the Water Board, whichever is appropriate.

27. Other Considerations and Requirements for Discharge

Pursuant to California Water Code section 13241, the requirements of this Order take into consideration:

- a. Past, present, and probable future beneficial uses of water.
This Order identifies past, present and probable future beneficial uses of water as described in Finding No. 23. The proposed discharge will not adversely affect present or probable future beneficial uses of water, including domestic water supply, agricultural supply, industrial supply, and freshwater replenishment.
- b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
Finding Nos. 14, 15, and 21 describe the environmental characteristics and quality of water from this hydrographic unit.
- c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area.
The requirements of this Order will result in maintaining existing groundwater quality.
- d. Economic considerations.
This Order authorizes the Discharger to implement post-closure maintenance actions at the Landfill as proposed by the Discharger. The Order accepts the Discharger's proposed actions as meeting the best practicable control method for protecting groundwater quality from impacts from the Landfill.
- a. The need for developing housing within the region.
The Discharger is not responsible for developing housing within the region. This Order provides for post-closure maintenance of the Landfill.

- f. The need to develop and use recycled water.
There is currently no source of recycled water available to the Discharger.
Additionally, the water requirements for post-closure maintenance are minimal.

28. 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.

29. Consideration of Interested Parties

The Water Board, in a public meeting held on May 13 and 14, 2009, heard and considered all comments pertaining to these WDRs.

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

I. DISCHARGE SPECIFICATIONS

A. Receiving Water Limitations

Discharges from the Landfill 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 groundwaters of the Surprise Valley Hydrologic Unit:

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 includes future changes 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 includes future changes 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 includes future changes as the changes take effect.
5. Nondegradation – State Water Board Resolution No. 68-16 “Statement of Policy With Respect to Maintaining High Quality of Waters in California,” known as the Nondegradation Objective, requires maintenance of existing high quality in surface waters, groundwaters, or wetlands. Whenever the existing quality of water is better than the quality of water established in the Basin Plan, such existing quality shall be maintained unless appropriate findings are made under Resolution No. 68-16.

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 Surprise Valley Ground Water Basin is prohibited.
4. The closed landfill 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.

10-0012

6. The exterior surfaces of the closed landfill must be graded to promote lateral runoff of precipitation and to preclude 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 shall 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.
12. The Discharger shall immediately notify the Water Board of any flooding, slope failure, or other change in site conditions, that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
13. Any discharge that causes violation of any narrative water quality objective contained in the Basin Plan, including the Nondegradation Objective, is prohibited.
14. Any discharge that causes violation of any numeric water quality objective contained in the Basin Plan is prohibited.
15. Where any numeric or narrative water quality objective or receiving waters limit contained in the Basin Plan is already being violated, any discharge that causes further degradation or pollution is prohibited.

B. Detection Monitoring Program

The Discharger shall maintain a Detection Monitoring Program as required in 27 CCR section 20420.

C. Evaluation Monitoring Program

The Discharger shall maintain the Evaluation Monitoring Program as long as there is evidence of a release from the Landfill as required in 27 CCR section 20425.

D. Corrective Action Program

The Discharger shall institute a Corrective Action Program when required pursuant to 27 CCR section 20430, if the results of the EMP warrant a CAP.

III. DATA ANALYSIS

All data analyses methods (statistical or non-statistical) shall meet the requirements of 27 CCR section 20415(e)(9).

A. General Non-statistical Methods

Evaluation of data will be conducted using non-statistical methods to determine if any new releases from the Landfill have occurred. Non-statistical analysis shall be as follows.

1. Physical Evidence

Physical evidence can include vegetation loss, unexplained volumetric changes in the Landfill, groundwater mounding, soil discoloration, or surface gas monitoring. Each annual report shall comment on the absence or presence of physical evidence of a release.

2. Time Series Plots

Each annual report must include time series plot for groundwater monitoring parameters. Time series plots are not required for parameters that have never been detected above their method detection limit (as specified by the applicable USEPA Method) or if there are less than four quarters of data. Evidence of a release may include trends of increasing concentrations of one or more constituent over time.

B. General Statistical Analysis Methods

For Detection Monitoring, the Discharger shall use statistical methods to analyze constituents of concern and monitoring parameters that exhibit concentrations that equal or exceed their respective method detection limit in at least ten percent of applicable historical samples. The Discharger may propose and use any statistical method that meets the requirements of 27 CCR section 20415(e)(7). The report titled "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities" (USEPA, 1989) or subsequent versions may also be used to select the statistical test to use for comparing detection monitoring well data to background monitoring data. All statistical methods and programs proposed by the Discharger are subject

to Executive Officer approval.

C. 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 Landfill 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 Landfill that caused evidence of a release.

D. 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 Landfill.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Orders No. 6-87-22 and 6-93-100 for the Fort Bidwell Landfill are hereby rescinded.

B. 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.

C. Monitoring and Reporting

1. Pursuant to the California Water Code section 13267(b), the Discharger must comply with the Monitoring and Reporting Program No. R6T-2009-(Proposed) or as specified by the Executive Officer.
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.

V. TIME SCHEDULE

A. Known or Reasonably Foreseeable Release Plan

By December 31, 2010 the Discharger must submit a plan for addressing a known or reasonably foreseeable release (KRFR Plan) from the Landfill in accordance with the requirements in 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.

B. Financial Assurance Documents.

By February 15, 2011 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 Landfill and to conduct post-closure maintenance activities. **By February 15 of every year** the Discharger must submit an annual report of the amount of financial assurance necessary to implement the KRFR Plan.

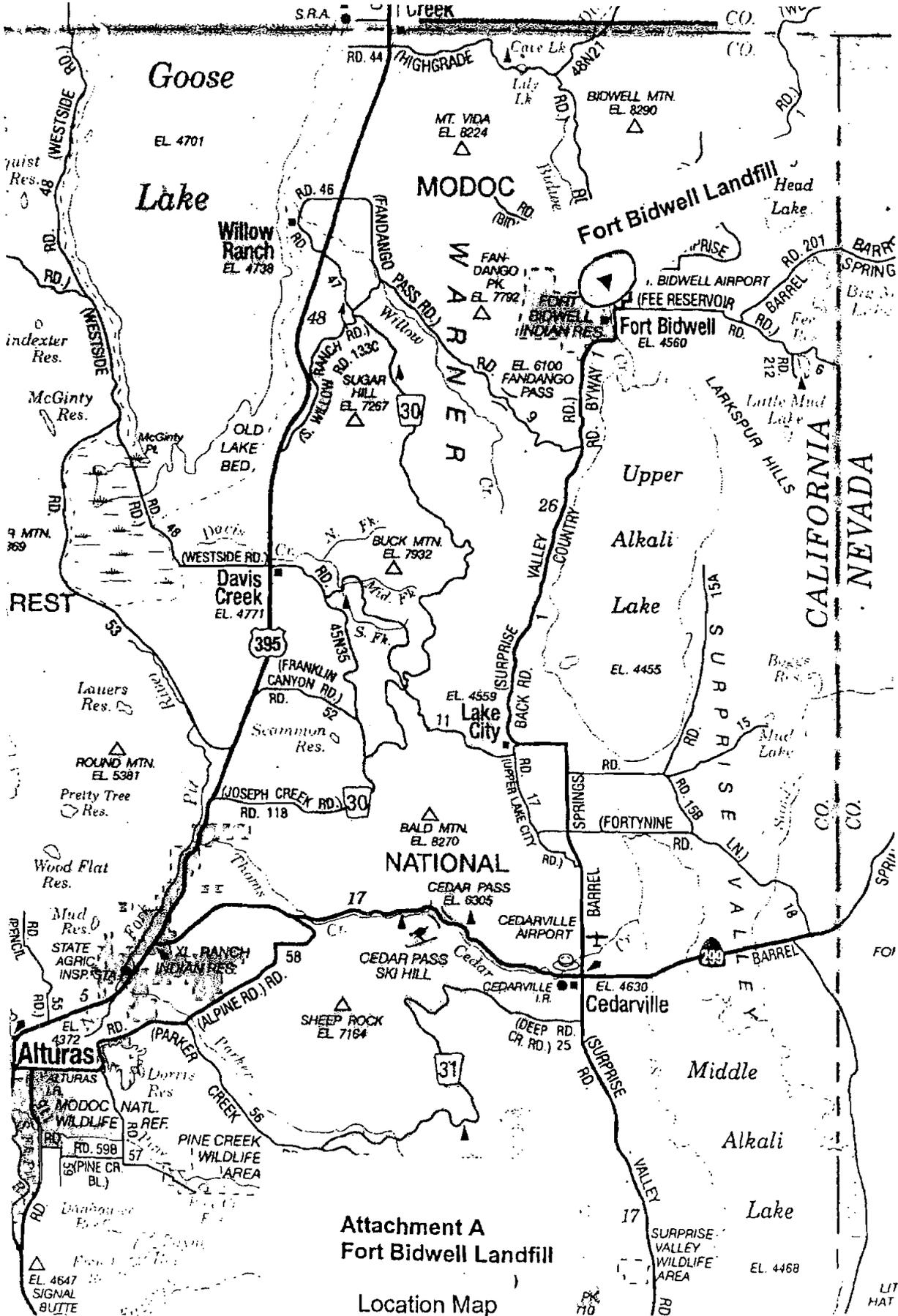
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by California Regional Water Quality Control Board, Lahontan Region, on May 13 and 14, 2009.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Fort Bidwell Landfill Location Map
 B. USGS Topo Map
 C. Standard Provisions for WDRs

ATTACHMENT A

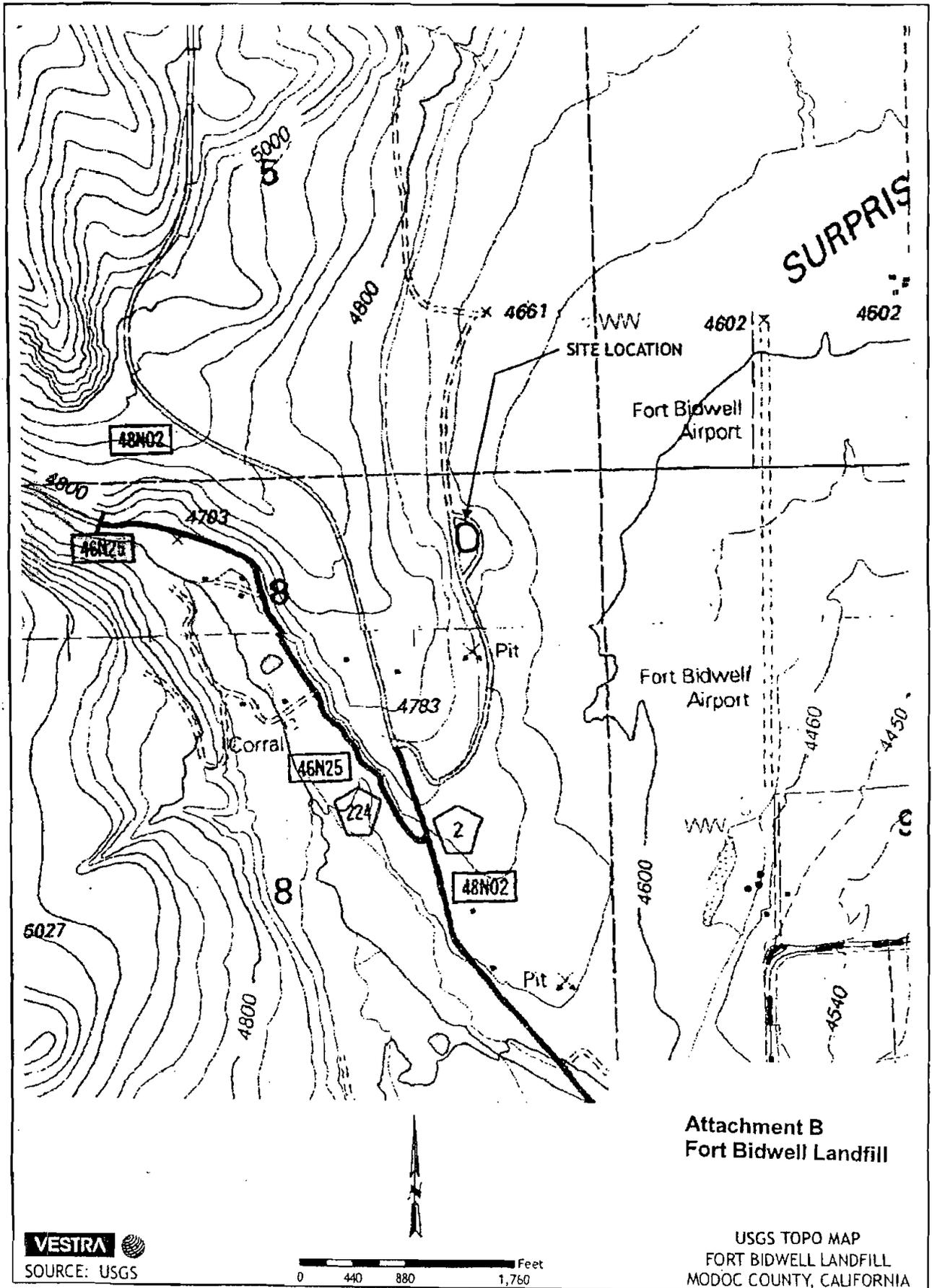
10-0018



Attachment A
Fort Bidwell Landfill
Location Map

ATTACHMENT B

10-0020



ATTACHMENT C

10-0022

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. Any such proposal shall be reported to the Regional Board at least 120 days in advance of implementation. 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. 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. R6T-2009-(PROPOSED)
WDID NO. 6A250008000**

For

**COUNTY OF MODOC
FORT BIDWELL LANDFILL**

Modoc County

I. WATER QUALITY PROTECTION STANDARD

Water Quality Protection Standard is required by Title 27 of the California Code of Regulations (27 CCR) to assure the earliest possible detection of a release from the Fort Bidwell Landfill (Landfill) to underlying soil and/or groundwater. 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 post-closure maintenance period, and during any compliance period. The Landfill is currently in the post closure period and under a Detection Monitoring Program (DMP). This Monitoring and Reporting Program maintains the DMP for the closed Landfill.

II. MONITORING

The Discharger has developed a DMP as required by 27 CCR section 20420. The DMP for the Landfill includes monitoring of the landfill cover and groundwater.

A. Landfill Cover Monitoring and Maintenance

The Discharger installed a final cover over the closed Landfill as specified in the *Final Closure and Post-Closure Maintenance Plan* (FCPCMP) dated August 1998. Inspection and Maintenance procedures will be as specified in the FCPCMP and will include the following:

1. **Semiannually**, the Discharger must inspect the condition of the cover to ensure the integrity of the cover and evaluate the cover's capability to promote runoff and preclude ponding on the cover. The Discharger must provide reports on the inspections **annually**. The semiannual inspection must consist of the following:
 - a. The Discharger must inspect the cover for integrity and inspect the vegetation for appropriate coverage.
 - b. The Discharger must also inspect the general integrity of the Landfill for signs of settlement, subsidence, and erosion.

10-0026

- c. The Discharger must inspect the drainage system for the entire site including that which will divert water from the Landfill and prevent run-on.
- d. During sampling events, groundwater monitoring wells will be inspected for damage.
- e. Any adverse conditions found in the visual inspection must be documented and corrected. Documentation of the correction must be submitted with each annual report.

B. Groundwater

The Landfill presently has three groundwater monitoring wells (OB-1, OB-2, and OB-3A) to monitor groundwater quality. Attachment A shows the location of the three monitoring wells. Only two of the monitoring wells have sufficient water to sample. Water detected in these wells has always been in the sumps in the bottoms of the monitoring wells. Groundwater has never risen up to the screened interval of any of the wells. Water sampled in the monitoring wells is therefore believed to monitor a first encountered water-bearing zone (possibly seasonal). Background monitoring well OB-3A is usually dry.

1. Point of Compliance and Monitoring Points

The Point of Compliance as defined in 27 CCR section 20405 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." Groundwater monitoring wells have been installed up gradient (OB-3A) and down gradient (point of compliance monitoring wells OB-1 and OB-2) of the Landfill. The locations of the groundwater monitoring wells (OB-1, OB-2, and OB-3A) are shown 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 semiannually and reported in tabular form annually. 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 groundwater flow direction and estimated groundwater gradient.

**Table No. 1.a
 Groundwater Field Measurements**

Parameter	Units
depth to groundwater	feet below ground surface
electrical conductivity	micromhos/cm
pH	pH units
temperature	degree F or C
turbidity	NTUs

**Table 1.b
 Groundwater Calculations**

Parameter	Units
static water level	feet above mean sea level
slope of groundwater gradient	feet per feet
direction of groundwater gradient	degrees from true north

3. Groundwater Purging

Groundwater samples must be collected after the wells have been purged in accordance with California Environmental Protection Agency guidance document, *Representative Sampling of Groundwater for Hazardous Substances*, revised February 2008 (see: http://www.dtsc.ca.gov/SiteCleanup/upload/SMP_Representative_Sampling_GroundWater.pdf). The required stability parameters and criteria from this guidance are summarized in Table 1.c.

**Table 1.c
 Stabilization Parameters and Criteria**

Parameter	Criteria
temperature	± 3% of reading (minimum of ± 0.2 C)
pH	+/- 0.1
specific electrical conductance	+/- 3%
oxidation-reduction potential	+/- 10 millivolts
dissolved oxygen	+/- 0.3 milligrams per liter

4. Monitoring Parameters and Sampling Frequency

The Discharger shall analyze all samples from all Groundwater Monitoring Points as specified under Part II.B.1. of this Monitoring and Reporting Program for the monitoring parameters listed in **Table 1.d**. These monitoring parameters meet the requirements of the State Water Board Resolution No. 93-62 and 40 Code of Federal Regulations (CFR) Part 258.54. Groundwater sampling for monitoring parameters will be collected semiannually and reported annually.

Table 1.d
Monitoring Parameters

Parameter	USEPA Method ⁽¹⁾	Units
chloride	300.0	mg/L
dissolved oxygen ⁽²⁾	field	mg/L
electrical conductivity ⁽²⁾	field	mmhos/cm
nitrate as nitrogen	9200	mg/L
pH	field	pH units
sulfate	300.0	mg/L
temperature ⁽²⁾	field	F/C
total dissolved solids	160.1	mg/L
turbidity ⁽²⁾	field	NTU

footnotes:

- (1) An alternate method may be proposed and used if acceptable to the Executive Officer.
- (2) With the exception of temperature and turbidity, concentrations must be tabulated and graphed in monitoring reports; however, development of statistical background levels is not required.

5. Constituents of Concern Monitoring and Sampling Frequency

Constituents of Concern (COCs) are listed in Tables 1.e and 1.f. Analysis for COCs shall be carried out **once every five years** at each of the site's groundwater monitoring points. This list is from Appendix II of 40 CFR Part 258 which lists pollutants required to be monitored at the Landfill 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.

**Table 1.e
 Inorganic Constituents of Concern**

Constituents of Concern	USEPA Method⁽¹⁾
antimony ⁽²⁾	7062
arsenic ⁽²⁾	7060
barium ⁽²⁾	6010B
beryllium ⁽²⁾	6010B
cadmium ⁽²⁾	6010B
chromium ⁽²⁾	6010B
cobalt ⁽²⁾	6010B
copper ⁽²⁾	6010B
lead ⁽²⁾	7421
nickel ⁽²⁾	6010B
selenium ⁽²⁾	7740
silver ⁽²⁾	6010B
thallium ⁽²⁾	7841
vanadium ⁽²⁾	6010B
zinc ⁽²⁾	6010B
sulfide	9030

footnotes:

- (1) An alternate method may be proposed and used if acceptable to the Executive Officer.
- (2) Inorganic constituents from Appendix I, 40 CFR Part 258 (Subtitle D).

**Table 1.f
 Organic Constituents of Concern**

Constituents of Concern	USEPA Method ⁽¹⁾
chlorinated herbicides	8151
cyanide	9010
nonhalogenated volatiles (total petroleum hydrocarbons quantified as gasoline and diesel)	8015M
organochlorine pesticides and PCBs ⁽²⁾	8080
organophosphorous pesticides	8041A
semi-VOCs	8270
volatile organic compounds (VOCs) ⁽³⁾	8260B

Footnotes:

- (1) An alternate method may be proposed and used if acceptable to the Executive Officer.
- (2) PCBs are polychlorinated biphenyls.

- (3) The VOCs monitoring parameter includes all VOCs detectable using USEPA Method 8260B, including at least all 47 organic constituents listed in Appendix I to 40 CFR Part 258 and all unidentified peaks.

III. DATA ANALYSES

All data analyses methods (statistical or non-statistical) shall meet the requirements of 27 CCR section 20415(e)(9).

A. General Non-statistical Methods

Evaluation of data will be conducted using non-statistical methods to determine if any new releases from the Landfill have occurred. Non-statistical analysis shall be as follows.

1. Physical Evidence

Physical evidence can include vegetation loss, unexplained volumetric changes in the Landfill, groundwater mounding, soil discoloration, or surface gas monitoring. Each annual report shall comment on the absence or presence of physical evidence of a release.

2. Time Series Plots

Each annual report must include time series plot for groundwater monitoring parameters. Time series plots are not required for parameters that have never been detected above their method detection limit (as specified by the applicable USEPA Method) or if there are less than four quarters of data. Evidence of a release may include trends of increasing concentrations of one or more constituents over time.

B. General Statistical Analysis Methods

For Detection Monitoring, the Discharger shall use statistical methods to analyze COCs and monitoring parameters that exhibit concentrations that equal or exceed their respective method detection limit in at least ten percent of applicable historical samples. The Discharger may propose and use any statistical method that meets the requirements of 27 CCR section 20415(e)(7). The report titled "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities" (USEPA, 1989) or subsequent versions may also be used to select the statistical test to use for comparing detection monitoring well data to background monitoring data. All statistical methods and programs proposed by the Discharger are subject to Executive Officer approval.

IV. REPORTING REQUIREMENTS

A. Annual Reports To Be Filed With the Lahontan Regional Water Quality Control Board (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.waterboards.ca.gov/lahontan/water_issues/available_documents/index.shtml. The following periodic reports shall be submitted to the Water Board as specified below.

1. One annual report is required per year, as follows:

<u>Report due date</u>	<u>Reporting Period</u>
February 15	January 1- Dec 31

2. The report must contain the following information.
 - a. Results of sampling and laboratory analysis of groundwater sampling.
 - b. A map or aerial photograph showing the locations of monitoring points.
 - c. For each monitored groundwater body, a description and graphical presentation of the velocity and direction of groundwater flow under and around the Landfill, based upon water level elevations taken during the collection of the water quality data submitted in the report.
 - d. 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.
 - e. 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 preclude 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.
 - f. 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 indicates, 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 (27 CCR section 20420(j)). 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 for the release.
- c. If the Discharger chooses to attempt to demonstrate that a source other than the Landfill 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 California Water Code section 13267(b) proposing an EMP. If the Discharger decides not to conduct verification procedures, or decides not to make a demonstration that a source other than the Landfill 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 Landfill is not the cause of the detection.

4. Data Analysis Report

The Discharger shall, by **February 15 of every year**, 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 **February 15, 2010**, and on or before **February 15** 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 semiannually.

E. Financial Assurance

On or before **February 15, 2011**, and on or before **February 15** 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.

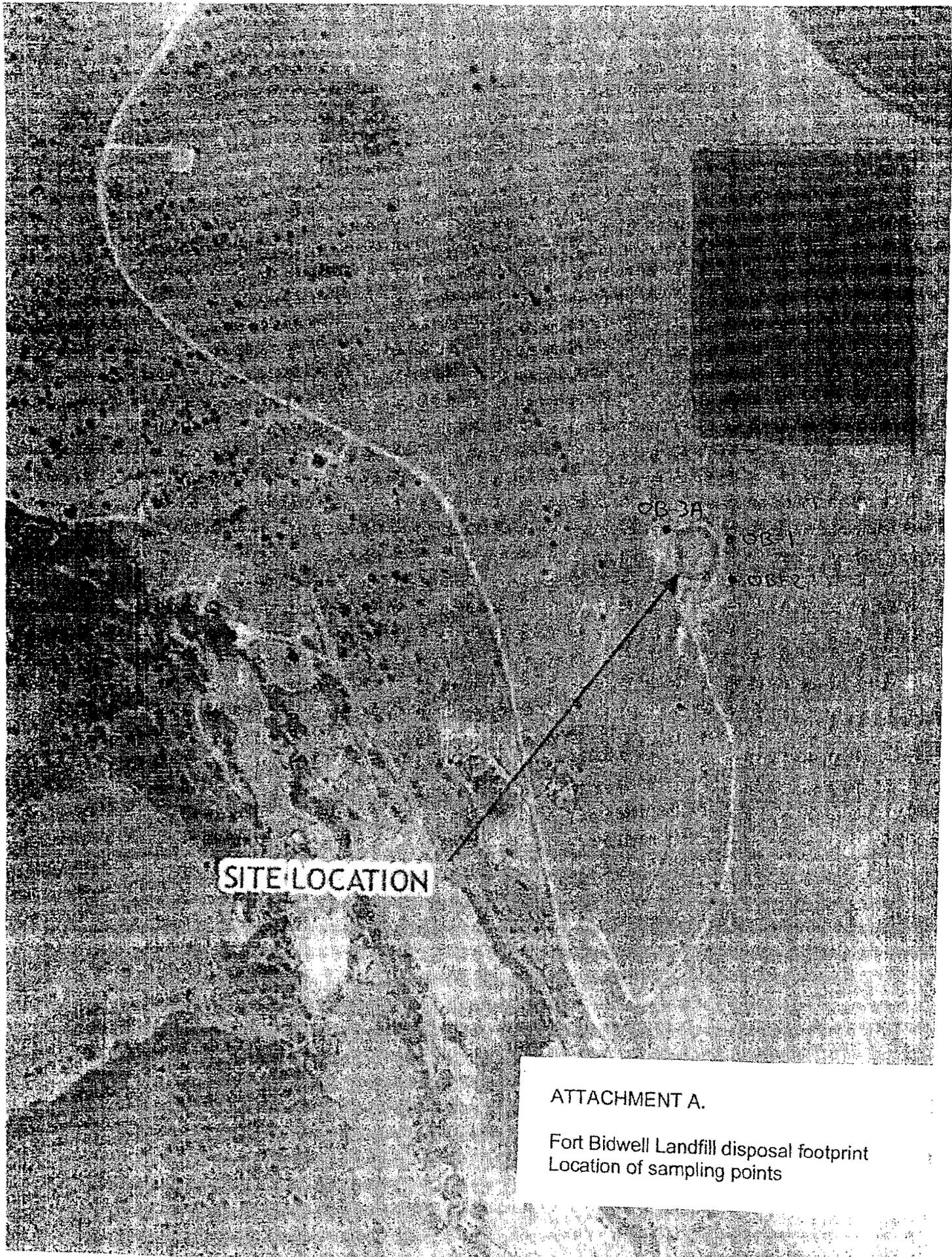
Ordered by: _____
HAROLD J. SINGER
EXECUTIVE OFFICER

Dated: _____

- Attachment: A. Fort Bidwell Landfill disposal footprint, location of sampling points
B. General Provisions for Monitoring and Reporting
C. Transmittal Cover Letter Form

ATTACHMENT A

10-0035



SITE LOCATION

CB-3A

CB-1

CB-2

ATTACHMENT A.
Fort Bidwell Landfill disposal footprint
Location of sampling points

ATTACHMENT B

10-0037

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 6A250008000
- 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

ATTACHMENT C

10-0041

Attachment C

Date _____

California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Facility Name: _____

Address: _____

Contact Person: _____

Job Title: _____

Phone: _____

Email: _____

WDR/NPDES Order Number: _____

WDID Number: _____

Type of Report (circle one):	Monthly	Quarterly	Semi-Annual	Annual	Other	
Month(s)	JAN	FEB	MAR	APR	MAY	JUN
(circle applicable month(s)*:	JUL	AUG	SEP	OCT	NOV	DEC

*annual Reports (circle the first month of the reporting period)

Year: _____

Violation(s)? (Please check one): _____ NO _____ YES*

*If YES is marked complete a-g (Attach Additional information as necessary)

a) Brief Description of Violation: _____

b) Section(s) of WDRs/NPDES

Permit Violated:

c) Reported Value(s) or Volume:

d) WDRs/NPDES Limit/Condition:

e) Date(s) and Duration of Violation(s):

f) Explanation of Cause(s):

g) Corrective Action(s) (Specify actions taken and a schedule for actions to be taken)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or require additional information, please contact _____ at the number provided above.

Signature: _____

Name: _____

Title: _____

10-0043