

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**MONITORING AND REPORTING PROGRAM NO. R6T- 2006-0020**  
**WDID NO. 6A180506011**

FOR

**SPALDING COMMUNITY SERVICES DISTRICT**  
**SEWAGE EVAPORATION PONDS**

Lassen County

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**I. GENERAL REQUIREMENTS**

A. Effective date

This monitoring and reporting program (MRP) is effective on the date of adoption, or as amended by the Executive Officer.

B. Overview of Reports Required

The Discharger shall provide, for acceptance by the Water Board Executive Officer, a *Construction Quality Assurance Report*, and a minimum of two *Ground Water Quality Monitoring Reports*, prior to discharging into the evaporation ponds. Once the Facility is in use, the Discharger shall each year provide four (4) *Quarterly Monitoring Reports* and one (1) *Annual Report*. The monitoring period covered for each report and the dates the reports are due are listed below in each respective subsection. Each report shall provide information on general operations, evaporation rates, evaporation pond water quality, storage capacity, and ground water quality, as specified herein.

C. Certified Cover Letter

The Discharger shall use Attachment 1 as a cover letter, or a cover letter containing the same information, for all reports provided to the Water Board.

D. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting" dated September 1, 1994, which is made part of this Monitoring and Reporting Program as Attachment 2.

E. As-Built-Plans

Within 30 days of completing construction of the evaporation ponds the Discharger shall notify the Water Board in writing, and shall provide the following:

1. One set of "As-Built-Plans" for the Facility, full-sized blueprint, showing piping and instrument controls, stamped and signed by a California registered civil engineer.
2. One scaled drawing on an 8½" by 11" sheet of paper showing and labeling the location of the evaporation ponds and the monitoring wells.
3. A chart or graph that provides the amount of liquid contained in each evaporation pond in relationship to the measured height and elevation of water in each individual pond.

## **II. CONSTRUCTION QUALITY ASSURANCE PLAN COMPLIANCE REPORT**

- A. The Discharger submitted with the Report of Waste Discharge a Construction Quality Assurance (CQA) Plan dated November 18, 2005 for the construction of the sewage collection system and the Facility (wastewater evaporation ponds). The CQA Plan includes comprehensive procedures for quality assurance during all phases of the liner construction. The CQA testing and inspections specified in both the construction specifications and the CQA Plan will remain in effect during construction of all the evaporation ponds. Accordingly, the CQA Plan inspections will be conducted by, or under the supervision of, either a registered California civil engineer or a certified engineering geologist (CQA Officer).
- B. The Discharger shall ensure the construction is completed in accordance with the CQA Plan, and shall document compliance or noncompliance in a CQA Plan Compliance Report, with copies of all inspections and testing completed under the CQA Plan. The Facility may not receive any effluent prior to written acceptance of the CQA Plan Compliance Report by the Water Board Executive Officer. The CQA Plan Compliance Report shall be submitted within 60 days of completing construction of the evaporation ponds.

## **III. GROUND WATER MONITORING WELL CONSTRUCTION AND INITIAL SAMPLING REPORTS**

Prior to initiating the discharge to the Facility, the Discharger shall install three wells, at a minimum, as specified in the report of waste discharge dated November 17, 2005, and following the specifications below:

- A. A minimum of three monitoring wells shall be installed to determine the ground water gradient and direction. Of the three monitoring wells, one well must be located in an upgradient location and two wells must be located in downgradient locations with respect to the ground water flow beneath the Facility.
- B. Additional wells shall be installed if the Discharger cannot demonstrate that two downgradient wells are located to monitor ground water potentially

impacted by the Facility and one upgradient well is located where the ground water cannot be impacted by the Facility.

- C. An As-Built design report shall be provided within 60 days after the installation of the ground water monitoring wells. The report shall include a statement signed by a California registered civil engineer or professional geologist regarding the placement, lithology, and construction of the wells, and supporting data and documentation.
- D. Pre-Discharge Ground Water Monitoring: Following completion of the monitoring well construction, a minimum of two ground water sampling events must occur, sampling all the monitoring wells prior to the evaporation ponds receiving any discharge. One sampling event shall occur between October 1 and March 30 of consecutive years and another shall occur between April 1 and September 30 of the same year, and the two events shall not occur within 120 consecutive days. Each monitoring well shall be purged as described in section IV.D.1., below, prior to collecting samples. Samples shall be analyzed for all the ground water parameters listed below in the sections on quarterly and annual sampling. The analytical results must be submitted to the Water Board prior to the Facility receiving any effluent.

#### IV. QUARTERLY MONITORING REPORTS

##### A. Monitoring Periods and Due Dates for Quarterly Monitoring Reports

Quarterly Reports shall be provided to the Water Board as specified below:

<u>Monitoring Period</u>	<u>Report Due Date</u>
October 1 - December 31	<b>January 30</b>
January 1 - March 31	<b>April 30</b>
April 1 - June 30	<b>July 30</b>
July 1 - September 30	<b>October 30</b>

##### B. Facility Monitoring

The Discharger shall provide the following information as part of each Quarterly Report:

1. The total volume of wastewater flow to the Facility for each month, in thousands of gallons and in cubic feet.
2. The average daily flow received by the Facility for each month, in thousands of gallons per day (total volume of wastewater received in the month divided by the number of days in the month).
3. The minimum freeboard (distance from the top of the lowest part of the dike to the wastewater surface in the pond) measured each month in each

surface impoundment. If an evaporation pond does not contain wastewater, indicate that it is empty.

4. The total pan evaporation of water during each month based on the measured and computed daily evaporation rates in test pans.
5. A total monthly water balance for the Facility reporting the amount of effluent received, the volume of liquid evaporated and the total volume of liquid stored in the ponds at the beginning and end of each month based on gauged pond level measurements.
6. The total number of service connections and the number of new service connections during the monitoring period.
7. All analytical data collected during the quarter and a tabular summary of the data.
8. A review, analysis and certifying statement that the ground water monitoring data has not shown a statistically significant increase in any of the monitored constituents. The review and analysis may be accomplished by a comparison of upgradient and downgradient monitoring well data, intrawell statistical analysis, interwell statistical analysis or other method as approved by the Water Board's Executive Officer. If the certification cannot be provided because an increase is detected, then the Discharger is required to notify the Water Board as required pursuant to standard provision 2.a. (Attachment C) within 48 hours and implement procedures in section VII of this monitoring and reporting program.
9. Reports of any operational problems and maintenance activities affecting effluent discharges or compliance with waste discharge requirements, and proposed corrective measures, if needed, and a schedule for completion.
10. Reports of monthly visual inspections of the evaporation ponds.

C. Evaporation Pond Water Quality Monitoring

Grab samples of water shall be collected on a quarterly basis from each pond containing standing liquid and tested for the following parameters:

<b>Quarterly Evaporation Pond Water Quality</b>			
<u>Parameters</u>	<u>Units</u>	<u>Testing Method</u>	<u>Detection Limit</u>
Total nitrogen	mg/l	Laboratory	0.1
Nitrate as nitrogen	mg/l	Laboratory	0.01
pH	pH units	Field	0.1
Total Dissolved Solids	mg/l	Laboratory	10

D. Ground Water Monitoring

1. Ground Water Purging

Each time a monitoring well is sampled and prior to well purging as specified below, the elevation (with respect to mean sea level) and depth (below ground surface) of ground water in each monitoring well shall be measured and reported with the results of ground water analyses.

2. Ground Water Analyses

Monitoring wells shall be sampled quarterly and tested for the following parameters:

**Quarterly Ground Water Quality**

Parameter	Units	Testing Method	Minimum Detection limit
pH	pH units	Field	0.1
Total Dissolved Solids	mg/l	Laboratory	10
Fecal Coliform	mpn/100ml	Laboratory	1
Total Nitrogen	mg/l	Laboratory	0.1
Total Phosphorus	mg/l	Laboratory	0.08
Chloride	mg/l	Laboratory	0.08

- a. Ground water samples shall be collected only after an amount of water equal to three times the amount of water within the well casing has been removed, and the temperature, electrical conductivity, and pH measurements of the water in the well have stabilized to approximately  $\pm 10\%$  for successive measurements.
  - b. Measurements of temperature, electrical conductivity, and pH during purging shall be reported with the results of ground water analyses.
  - c. Well casing diameter, well depth, depth to ground water, and total volume purged prior to sampling shall also be reported with the ground water monitoring results.
3. Each quarter, the Discharger shall determine and report the ground water gradient and flow direction based on the ground water elevations within the monitoring wells just prior to purging at the time of sampling.

## V. ANNUAL MONITORING REPORT

### A. Annual Report General Reporting

An Annual Report is **due by January 31** of each year and shall cover the period from January 1 through December 31 of the previous calendar year. The Annual Report shall provide the following information:

1. Graphical and tabular presentation of all monitoring data obtained for the previous years and a trend analysis of the data.
2. The compliance record and corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
3. Any modification or additions to, or any major maintenance conducted on, the wastewater flow measuring equipment, treatment facilities or disposal facilities during the past year.
4. The amount of liquid evaporated by natural pan evaporation for the previous calendar year.
5. A water balance for each month of the previous year and a table of the influent flow, precipitation and pan evaporation for each month.
6. A report on predicted storage capability for the next year. Using the storage capacity available on December 31 and the previous-year influent flow or the estimated flow in the Report of Waste Discharge (which ever is greater), a seasonal precipitation of 32 inches, and the previous-year evaporation rates, determine the expected monthly storage capacity and elevations of the effluent in the evaporation ponds for each month for the next (current) year. If it is predicted that the expected storage capacity needed will not maintain at least two feet of free board in each pond, the Discharger shall propose and schedule implementation of remedial measures to maintain compliance with waste discharge requirements, and/or prevent Facility overflows.

### B. Evaporation Pond Metals Monitoring

Evaporation pond sampling shall be conducted on a five-year cycle. The five-year cycle sampling is primarily to determine if the constituents of the pond liquids, through evaporation, have reached levels at which the wastes are defined as hazardous.

Sampling for water quality shall be conducted in each pond at least once every five years with results reported in the Annual Report. On years when the sampling is not required, a statement indicating the last time the ponds were sampled shall be included in the report with a projected date the sampling will next occur.

**Evaporation Pond Metals Monitoring**

<u>Parameter</u>	<u>Units</u>	<u>Frequency</u>	<u>Detection limit</u>
Antimony	ug/l	five-year cycle	100
Arsenic	ug/l	five-year cycle	100
Barium	ug/l	five-year cycle	100
Beryllium	ug/l	five-year cycle	10
Cadmium	ug/l	five-year cycle	10
Chromium	ug/l	five-year cycle	10
Cobalt	ug/l	five-year cycle	40
Copper	ug/l	five-year cycle	10
Lead	ug/l	five-year cycle	100
Mercury	ug/l	five-year cycle	0.5
Molybdenum	ug/l	five-year cycle	40
Nickel	ug/l	five-year cycle	40
Silver	ug/l	five-year cycle	20
Selenium	ug/l	five-year cycle	100
Thallium	ug/l	five-year cycle	100
Vanadium	ug/l	five-year cycle	40
Zinc	ug/l	five-year cycle	20

C. Sludge Reporting

The Discharger shall report annually the amount of sludge accumulated in the ponds by both total volume and the percentage of the total storage capacity.

**VI. SLUDGE MANAGEMENT PLAN**

If the amount by volume of accumulated sludge is greater than 10% of the designed storage volume, the Discharger must submit a plan to remove and dispose of the materials within 180 days of identifying that 10% of the storage volume is consumed by sludge.

The Discharger shall file a completion report once the sludge has been removed that will include the following information:

1. The amount of solids remaining in each pond, if any.
2. The date and quantity of any sludge removed and disposed.

3. A representative composite sample of the sludge shall be collected and analyzed for the following constituents.
  - a. Total nitrogen
  - b. Organic and inorganic persistent and bioaccumulative toxic substances in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A) and (a)(2)(B).
4. The location of where the sludge was disposed and the name, address, and phone number of the operator.

## VII. CONTINGENCY RESPONSE

If the Discharger cannot provide the certification in section IV.B.8 of this monitoring and reporting program, then the Discharger shall take the following procedural steps to determine if the Facility is affecting the groundwater.

1. Resample all the monitoring wells for all constituents, submit the data to the Water Board within 30 days of the discovery of the increase, and provide an analysis that evaluates whether the concentrations of monitored constituents are increasing.
2. Produce and provide an investigation, evaluation and monitoring work plan within 120 days from the discovery of an increase in concentrations of monitored constituents. The work plan must describe how an investigation and evaluation will be conducted to determine if the Facility is causing or contributing to the increase in the concentrations of constituents in ground water, and provide a schedule for completing the evaluation.
3. If the results of the investigation work plan confirm the Facility is the source of the increases in the monitored ground water constituents, the Discharger shall, within 90 days of the determination, propose corrective measures for acceptance by the Water Board's Executive Officer.

Compliance with the procedures described above does not preclude or limit the Water Board from taking other enforcement action as authorized by law.

Ordered By  Date May 11, 2006  
HAROLD J. SINGER  
EXECUTIVE OFFICER

Attachments: 1. Certified Cover Letter  
2. General Provisions for Monitoring and Reporting



ATTACHMENT 1

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)** (circle applicable month(s)\*:

**JAN      FEB      MAR      APR      MAY      JUN**  
**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:**

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**d) WDRs/NPDES  
Limit/Condition:**

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

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**f) Explanation of Cause(s):**

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

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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.

Sincerely,

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## ATTACHMENT 2

### 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 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.
- 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 under Section 13268 of the Water Code.

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