

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

**BOARD ORDER NO. R6T-2003-0018
WDID NO. 6A 180208004**

WASTE DISCHARGE REQUIREMENTS

FOR

**HERLONG UTILITIES COOPERATIVE
WASTEWATER TREATMENT AND DISPOSAL FACILITY**

Lassen County

FINDINGS of the California Regional Water Quality Control Board, Lahontan Region (Board):

1. Discharger

Donald L. Armstrong, General Manager of the Herlong Utilities Cooperative, Inc. submitted a complete report of Waste Discharge for the Herlong Utilities Cooperative Wastewater Disposal Facilities on September 30, 2002. For the purposes of this Order, the Herlong Utilities Cooperative, Inc. is referred to as the "Discharger."

2. Facility

The Herlong Utilities Cooperative Wastewater Disposal Facility is the facility from which the discharge occurs. For the purposes of this Order, the Herlong Utilities Cooperative Wastewater Disposal Facility is referred to the "Facility." The Facility discharges treated domestic sewage effluent and sewage sludge.

3. Permit History

This is a new Facility, and has not been permitted before this date.

4. Reason for Action

The Regional Board is adopting Waste Discharge Requirements for the treatment and disposal of wastewater from the Facility.

5. Facility Location

The Facility is located forty miles southeast of the City of Susanville, adjacent to the community of Herlong. The facility is located in portions of Section 28, T27N, R17E, MDB&M, as shown on Attachment "A" which is made a part of this Order. The site lies within the Herlong Hydrologic Area of the Susanville Hydrologic Unit.

6. Description of Facility and Discharge

The Facility consists of an activated sludge oxidation ditch including zones with aerobic and anoxic conditions, followed by a secondary clarifier to allow the biomass to separate from the liquid. Treated wastewater effluent will be disposed of in six recharge basins for percolation to groundwater, and/or to a storage pond for effluent reuse. Hypochlorite will be added to disinfect effluent stored for eventual reuse for irrigation of landscape vegetation, fodder and fiber crops, and seed crops not intended for human consumption. A map of the Facility is shown on Attachment "B," which is made a part of this Order. These Waste Discharge Requirements also cover maintenance and operation of the interceptor sewer serving the Federal facilities ("Federal Interceptor") and a new interceptor serving the existing and new users on the south side of Susanville Road ("Pole Line Road Interceptor"), but not the interceptor and wastewater collection system within the existing Sierra Army Depot. The Facility will, however, accept, treat and dispose of wastewater from the Sierra Army Depot delivered via this conveyance. The Facility has a design average flow rate of 0.375 million gallons per day (MGD).

7. Sludge Treatment and Disposal

Sludge generated at the Facility will be dewatered by a biosolids press and stored onsite in a dumpster and in two scum sand drying beds. The dried biosolids will be delivered to a municipal landfill, or will be delivered to land application sites within or adjacent to the Facility site for use as a soil conditioner and amendment. A separate permit for biosolids application will be required to apply the biosolids to locations other than a municipal landfill.

8. Disposal Area

Treated wastewater from the treatment works is discharged to six 1.2-acre recharge basins. Treated wastewater may also be discharged to an 8 million gallon effluent storage pond after disinfection with hypochlorite. Wastewater in the effluent storage pond may be used for reclamation uses within and adjacent to the Facility site as shown on Attachment "B," or discharged to the recharge basins.

9. Authorized Disposal Site

The recharge basins, the wastewater storage ponds and agricultural application areas adjacent to the Facility are the only authorized disposal sites for wastewater. Until and unless a separate permit for biosolids application is applied for and issued by the Regional Board, the only authorized disposal site for sludge is a municipal landfill. The authorized disposal sites for wastewater are located on lands administered by the Discharger.

10. Reclamation Regulations

The State Department of Health Services has established statewide reclamation criteria for the use of reclaimed water for irrigation of landscape vegetation, fodder and fiber crops, and seed crops not intended for human consumption. All effluent made available for reclamation

shall comply with Department of Health Services Reclamation Requirements as specified in Chapter 3, Division 4, Title 22, California Code of Regulations.

11. Site Geology

The Facility lies in a basin-fill valley at the junction of the Sierra Nevada Province and the Modoc Plateau. The valley is bordered by the Skedaddle and Amedee Mountains to the northeast, the Fort Sage and Virginia mountains to the southeast, the Diamond Mountains to the south and southwest, and the Shaffer and Antelope mountains to the north. The substrata at the authorized disposal sites consist of unconsolidated and semi-consolidated lacustrine and fluvial depots of clay, silt, sand and gravel. The infiltration rate of soils is variable, but averages approximately 1.2 inches per hour. The subsurface consists of silty sands, clayey sands and gravelly sands.

12. Site Hydrology

The Facility is located on mildly sloping terrain within an alluvial valley at an elevation of approximately 4000 feet. Rainfall and snowmelt are primary sources of runoff from the Facility site. The annual precipitation in the area is approximately ten inches. Ephemeral drainage channels exist in the area that may be potential receiving waters for any unauthorized waste discharges. Honey Lake is located approximately three miles west and downgradient from the Facility.

13. Site Hydrogeology

The Facility is located within the Honey Lake Valley ground water basin, a 490 square mile basin with internal drainage, which stores an estimated 16 million acre-feet of water (California Dept of Water Resources, *California's Ground Water*, 1975). Ground water quality within this basin is listed as intermediate in the State Water Resources Control Board 1992 Water Quality Assessment, indicating that beneficial uses are supported while there is occasional degradation of water quality by natural or nonpoint-source pollutants. The local groundwater flow direction follows the surface topography, generally northwest toward Honey Lake. The median hydraulic conductivity of the basin-fill deposits and volcanic rocks has been estimated to be approximately eight feet per day based on production test wells and the descriptions of geologic materials in the basin. No monitoring wells have been installed in the vicinity of the Facility. However, from other wells in the vicinity, the depth to groundwater is estimated to be approximately 60 feet below ground surface. The Herlong community and surrounding agricultural users use groundwater in this area.

14. Receiving Waters

The receiving waters are ground waters of the Honey Lake Ground Water Basin (Department of Water Resources Basin No. 6-4.)

15. Lahontan Basin Plan

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

16. Beneficial Uses of Ground Water

The beneficial uses of the ground waters of the Honey Lake Ground Water Basin, as set forth and defined in the Basin Plan, are:

- a. municipal and domestic supply
- b. agricultural supply
- c. industrial service supply
- d. freshwater replenishment
- e. wildlife habitat

17. Constituents of Concern and Monitoring Parameters

Wastewater made available for percolation to groundwater will be required to meet standards for secondary treatment. Additionally, the Board Order requires quarterly monitoring of ground water beneath the facility for chloride, total dissolved solids, Kjeldahl nitrogen and nitrate nitrogen. The Discharger will complete ground water monitoring systems and initiate quarterly monitoring in the vicinity of the treatment and disposal areas prior to initiating waste discharges.

18. California Environmental Quality Act Compliance

Lassen County Board of Supervisors certified a Final Environmental Impact Report for the Herlong Utilities Cooperative Water and Wastewater Systems Project on December 19, 2002, in accordance with the California Environmental Quality Act (CEQA), Public Resources Code, §21000, et seq.). The changes or alterations to the project mitigate or avoid the adverse environmental impacts of the project on water quality.

19. Notification of Interested Parties

The Regional Board as notified the Discharger and interested parties of its intent to adopt waste discharge requirements for the Facility.

20. Consideration of Public Comments

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

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

I. DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. The monthly wastewater inflow to the Facility shall not exceed 11.625 million gallons.
2. All wastewater discharged to the designated disposal percolation areas or reclamation areas shall not contain pollutants at concentrations in excess of the following limits:

<u>Parameter</u>	<u>Units</u>	<u>Mean¹</u>	<u>Maximum</u>
BOD ²	mg/l	30	45
Total Suspended Solids	mg/l	30	45

¹The Arithmetic mean of lab results for all effluent samples collected during a period of 30 consecutive days.

²Biochemical Oxygen Demand (5 day, 20°C). Samples from oxidation ponds shall be filtered (using a No. 1 Whatman filter, or equivalent) and reseeded with unfiltered sample. Other types of treatment units should analyze unfiltered samples.

3. All wastewater discharged to the designated disposal areas shall have a pH of not less than 6 pH units nor more than 9 pH units. A pH over 9 is allowed if it results from a biological process within the treatment facility.
4. The effluent shall not contain trace elements, pollutants, contaminants, or combinations thereof, in concentrations which are toxic or harmful to human, plant, animal or aquatic life.

B. Receiving Water Limitations

The discharge of waste shall not cause the violation of the following water quality objectives for ground waters of the Honey Lake Valley Ground Water Basin:

1. Bacteria – The median concentration of coliform organisms over any seven-day period shall not be greater than 1.1/100 milliliters.
2. Chemical Constituents – Concentrations of chemical constituents shall not be 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: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), Table 64444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels-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 the incorporated provisions as the changes take effect. Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for designated beneficial uses.

3. Radioactivity – Concentrations of radionuclides shall not be in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the California Code of Regulations. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.
4. Taste and Odor – Concentrations of taste- or odor-producing substances shall not be in excess of concentrations that cause nuisance or that adversely affect beneficial uses. Concentrations shall not exceed adopted secondary maximum contaminant levels specified in Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels–Ranges) of Title 22 of the California Code of Regulations. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

C. General Requirements and Prohibitions

1. There shall be no discharge, bypass or diversion of raw or partially treated sewage, sewage sludge, grease or oils from the collection, transport, treatment or disposal facilities to adjacent land areas or surface waters.
2. Surface flow or visible discharge of sewage or sewage effluent from the authorized disposal and/or reclamation sites to adjacent land areas or surface waters is prohibited.
3. Neither the treatment nor the discharge shall cause a nuisance as defined in Section 13050 of the California Water Code.
4. The discharge of wastewater effluent except to the authorized disposal and/or reclamation sites is prohibited.
5. The integrity of any pond structures shall be maintained throughout the life of the ponds and shall not be diminished as the result of any maintenance or cleaning operation.

II. PROVISIONS

A. Standard Provisions

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

B. Monitoring and Reporting

1. Pursuant to Section 13383 and Section 13267(b) of the California Water Code, the Discharger shall comply with Monitoring and Reporting Program No. 2003-0018 as specified by the Executive Officer.
2. The Discharger shall 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.

C. Operator Certification

The Discharger's wastewater treatment Facility shall be supervised by personnel possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to *Regulations for Wastewater Treatment Plant Operator Certification and Plant Classification*, California Code of Regulations Title 23, Division 4, Chapter 14, Section 36700 et.seq.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on May 21, 2003.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Location Map
B. Sewage Treatment and Disposal Facility
C. Standard Provisions for Waste Discharge Requirements

TJP/cgT: HUC WWTF WDRS

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

MONITORING AND REPORTING PROGRAM NO. R6T-2003-0018
WDID NO. 6A 180208004

FOR

**HERLONG UTILITIES COOPERATIVE
WASTEWATER DISPOSAL FACILITIES**

Lassen County

I. MONITORING

A. Flow Monitoring

The Discharger shall monitor and record, for each day, the total influent flow to the wastewater treatment Facility.

B. Effluent Monitoring

1. Grab samples of effluent from the outflow of the wastewater treatment Facility shall be collected prior to discharge to the percolation/recharge basins and the reuse storage pond. The samples shall be collected on a quarterly basis and analyzed for the following constituents:

<u>Parameter</u>	<u>Units</u>	<u>Minimum Detection Limit</u>
5-day BOD	mg/l	10 mg/l
Total Suspended Solids	mg/l	10 mg/l

2. Samples of effluent discharged to the reuse storage pond and collected as above shall additionally be analyzed for the following constituents:

<u>Parameter</u>	<u>Units</u>
Total Coliform Organisms	MPN/100 ml or MFC/100 ml
Fecal Coliform Organisms	MPN/100 ml or MFC/100 ml

C. Ground Water Monitoring

1. Prior to initiating discharge, the Discharger shall drill at least one ground water monitoring well to determine ground water level. If ground water is

encountered at a depth of less than five hundred feet below ground surface, the Discharger shall submit, by **July 15, 2003**, a ground water monitoring system plan and a time schedule for installation of ground water monitoring wells by **September 30, 2003**, as described below. If ground water is not found, ground water monitoring will not be required. The monitoring system, at a minimum, shall include the following:

- a. A minimum of three monitoring wells shall be installed to determine the gradient of the ground water.
 - b. Additional wells shall be installed, if necessary, to insure that at least one (1) well is up gradient and two (2) wells are down gradient of the wastewater treatment facilities. The Discharger shall demonstrate that at least two down gradient wells are located such that ground water potentially impacted by the Discharge will be monitored.
 - c. The specific design and location of the wells shall be submitted for review and approval by the Regional Board Executive Officer.
 - d. Prior to initiating discharge of wastewater, the ground water monitoring wells shall be installed at the disposal site in accordance with the approved plan.
 - e. An as-built design report shall be submitted within 60 days after the ground water monitoring system is installed. This shall include a statement of certification signed by a California registered civil engineer or geologist, regarding the placement, lithology and construction of the wells.
2. Upon completion of each well, and routinely thereafter on a quarterly basis, a grab sample from the entire thickness or the upper 20 feet, whichever is less, of the uppermost ground water bearing zone shall be collected from each of the monitoring wells and analyzed to determine the magnitude of the following parameters:

<u>Parameter</u>	<u>Units</u>
Chloride	mg/l
Total Dissolved Solids	mg/l
Kjeldahl Nitrogen	mg/l as N
Nitrate Nitrogen	mg/l as N

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

b. Well Purging

(1) Ground water samples shall be collected only after at least three volumes of water in the well casing have been removed and temperature, electrical conductivity and pH measurements of the water in the well have stabilized to approximately $\pm 10\%$ for each successive well volume removed.

(2) The measurements of temperature, electrical conductivity and pH during purging shall be reported with the results of ground water analyses. Parameter values shall be reported in the following units:

<u>Parameter</u>	<u>Units</u>
Temperature	degrees C or degrees F
Electrical Conductivity	micromhos/cm or dS/m
pH	pH units

(3) The well casing diameter, well depth, and total volume purged prior to sampling shall be reported with the results of ground water analyses.

c. The velocity and direction of ground water flow under the facility site shall be determined at least annually unless it can be shown that no changes have occurred.

D. Inspections of Disposal Area

The Discharger shall conduct an inspection of the Facility on a quarterly basis, at a minimum, and note the following:

- a. Damage to containment facilities
- b. Overgrowth by weeds which hamper the facility's operation
- c. Nuisance odors.

- d. Nuisance insect vectors.
- e. Adequate access controls.
- f. Colors, scums, unusual odors, foams which indicate improper operation of the facility.
- g. Accumulations of waste sludge stored onsite.
- h. Indications of high ground water in the area of the facilities.
- i. Proper operation and calibration of all flow measuring devices.

II. REPORTING

A. 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.

B. Notation of Noncompliance

The Discharger shall note and explain in each monitoring report any unusual occurrence such as any system failure that could affect water quality or compliance with any waste discharge requirement, effluent limitation, or receiving water limitation. The Discharger shall note any instances of noncompliance and any corrective actions taken or planned to attain compliance, and a schedule for completion of any planned actions. If no violations occurred, the Discharger shall provide a statement certifying that fact.

C. Submittal Periods

Monitoring reports shall be submitted quarterly not later than January 15, April 15, July 15 and October 15 for the previous quarter. The data shall be arranged to show a tabular and/or graphical presentation of the monitoring data obtained for the monitoring period, and shall include total flows for each month.

Ordered by: _____ Dated:

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: General Provisions for Monitoring and Reporting

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: 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.