

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6T-2008-0024
WDID 6A186000500

WASTE DISCHARGE REQUIREMENTS
FOR
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
HIGH DESERT STATE PRISON-LASSEN COUNTY
AND
CALIFORNIA CORRECTIONAL CENTER AT SUSANVILLE
WASTEWATER TREATMENT FACILITY

Lassen County

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

1. Discharger

On March 28, 2008, California Department of Corrections and Rehabilitation (CDCR) filed a complete report of waste discharge for planned modifications to expand the wastewater treatment and storage facility serving two California state prisons, the California Correctional Center at Susanville (CCC) and the High Desert State Prison-Lassen County (HDSP). For the purposes of this Order, the CDCR is the "Discharger."

2. Facility

For the purposes of this Order, the wastewater treatment and storage facility serving the CCC and the HDSP is referred to as the "Facility." The Facility discharges treated domestic sewage from the CCC and HDSP and has been in operation since 1995. Treated wastewater is subsequently disposed of by recycling on lands owned by the Discharger.

3. History of Regulation by the Water Board

Wastewater treatment and storage at the CCC has been regulated in a series of Board orders since the 1970s. The CCC wastewater treatment, storage, and agricultural disposal areas were expanded when the HDSP was constructed. On February 9, 1995, the Water Board adopted Board Order No. 6-95-23 establishing waste discharge requirements for the existing Facility.

On July 13, 2005, the Water Board adopted Cease and Desist Order No. R6T-2005-0016 in response to concerns with the Facility exceeding flow limitations, and elevated concentrations of nitrate associated with disposal of wastewater from the Facility in the ground water. The Order required the Discharger to implement immediate and long-term corrective actions to comply with waste

discharge requirements and/or expand the capacity of the Facility, as needed, in accordance with a compliance schedule. On July 13, 2005, the Water Board adopted Board Order No. 6-95-23A1 amending waste discharge requirements for the Facility by increasing the area authorized for wastewater disposal from 250 acres to 320 acres. On April 11, 2007, the Water Board adopted Board Order No. 6-95-23A2, amending waste discharge requirements for the Facility by increasing the allowable discharge from 365 million gallons per calendar year to 522 million gallons per calendar year, provided that agronomic application rates for water and nitrogen are maintained at all times in the disposal areas. Revised Monitoring and Reporting Program (MRP) requirements were also established under amendment No. 6-95-23A2.

4. Reason for Action

The Water Board is revising waste discharge requirements at the Discharger's request in order to establish waste discharge requirements for modifications to remodel and expand existing waste treatment and storage facilities, and for planned new waste treatment facilities and disposal areas. This Order establishes waste discharge requirements for operation of the expanded Facility and disposal areas, and regulates interim Facility waste treatment and disposal operations until the expansion is completed.

5. Facility Location

The Facility is located seven miles east of the City of Susanville (but is annexed to the City), in Lassen County, near the intersection of County Road A27 with Rices Canyon Road, APNs 117-150-01 and 23, in the Susanville Hydrologic Subunit, within portions of Sections 1, 2, 3, and 4 of the T29N, R13E, MDB&M, and portions of Sections 33 and 34 of T30N, R13E, MDB&M, as shown on Attachment "A," which is made part of this Order.

6. Description of Facility and Discharge

Discharge:

The discharge consists of treated sewage, kitchen and laundry wastes generated by prison inmates and staff at the CCC and HDSP. There are no prison industries that generate liquid waste streams that require pretreatment in order to meet waste discharge requirements. The Discharger currently provides staffing and services for approximately 8,800 inmates at the two prisons. The Facility also chlorinates the wastewater with liquid chlorine solution prior to use for irrigation. (For the purposes of this Order, the use of treated wastewater for crop irrigation is synonymous with the terms "recycling," "reuse," and "reclamation" of treated wastewater.) The chlorinated effluent is not sampled for coliform concentrations and therefore the irrigation water is considered secondary *undisinfected* recycled water as defined by California Code of Regulations, title

22, section 60301.900, and is suitable for use on fodder crops. Pursuant to section 60301.650 the wastewater is "oxidized wastewater" which means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Existing Facility:

The existing Facility will continue to be operated while upgrades are being completed. The existing Facility was designed to treat wastes using mechanical aeration followed by detention in oxidation ponds. Following treatment, wastewater is stored in ponds prior to being chlorinated and discharged to fodder crops via spray irrigation equipment. The treatment facilities are designed for an average flow rate of 1.4 million gallons per day (MGD), a peak daily flow of 2.1 million gallons, and a peak hourly flow rate of 4.2 MGD.

Grit removal, grinding, and screening are accomplished in the Facility headworks. The incoming waste is then pumped to parallel aeration ponds (two ponds, 11.35 million gallons each, floating aerators), and sedimentation ponds (two ponds, 5.4 million gallons each, nine feet deep). Following sedimentation, the treated effluent is stored in five storage ponds that predate the existing Facility (designated as storage ponds 1 through 5) and two storage ponds constructed in 1995 (designated as storage ponds 6 and 7), with a combined storage volume of 720 acre-feet. Wastewater is retained in storage ponds 1 through 7 over the winter months and used for fodder crop irrigation during the growing season.

As described above, two aeration ponds, two aerated sedimentation ponds and two additional storage ponds were built in association with the 1995 expansion. The new treatment and storage ponds were constructed with a mixture of native soils and bentonite and tested by the Discharger to determine soil permeability factors. Test results at various locations in the ponds indicated that soils met a permeability factor of 5.4×10^{-7} centimeters/second to limit estimated seepage of wastewater from the new ponds into the ground water beneath the Facility to rates of loss no greater than 500 gallons/acre/day. The older, earthen storage ponds (nos. 1-5) originally established for CCC wastewater were retained without modifications.

Proposed Facility:

Completion of system upgrades to increase the ability to treat and store more wastewater at the Facility is proposed by December 31, 2009, to comply with Cease and Desist Order No. R6T-2005-0016. The proposed expansion will assist the Discharger to achieve compliance with requirements by increasing the capacity to treat and store additional waste for agricultural reuse at agronomic rates. The proposed expansion will increase treatment capacity, as follows: the average of daily flows for each month will increase from 1.4 MGD to 1.8 MGD; maximum flow during any day will increase from 2.1 MG to 2.7 MG; and the

maximum flow rate during any hour will increase from 4.2 MGD to 5.4 MGD (5.4 MGD for one hour is equivalent to 225,000 gallons in one hour).

Proposed major modifications to the Facility include the following: improvements to the headworks (new course and fine screens, presses to compact inert screened material prior to disposal), new influent pumps and force main; use of 60-mil high density polyethylene (HDPE) liners. The two existing, soil-lined primary ponds will be converted to secondary oxidation ponds. A major part of the upgrade includes lining the existing storage pond nos. 1 – 5, and the new treatment and storage ponds with HDPE. New ponds to be constructed with HDPE lining will include a primary/fermentation pond, two constructed wetland cells (10 acres each), and three new storage ponds (nos. 8, 9, and 10) increasing the storage capacity by 480 acre-feet.

7. Disposal Area

Treated wastewater from the storage ponds is chlorinated and disposed of by recycling on adjacent State of California owned land used to produce alfalfa fodder for non-dairy animals. Application is by spray irrigation. Rates vary with season and crop needs, and disposal is proposed to be at agronomic rates for the specific crop(s) grown. Based on an agronomic report produced by the Discharger in 2007, agronomic rates of water and nitrogen application may be maintained while using up to 60 inches of recycled wastewater annually on areas growing alfalfa. For the purposes of this Order, the term "disposal area" and acreages cited include multiple spray-irrigation application areas where wastewater is or will be directly applied and the tail water ponds, but not the protected and setback areas as identified in Attachment "A."

Existing Disposal Area:

Chlorinated wastewater is pumped to approximately 320 acres of alfalfa (designated as the Upper West Irrigation Field, Lower West Irrigation Field, and East Irrigation Field) located to the north and northeast of the Facility storage ponds, as depicted on Attachment "A." A portion of the existing Lower West irrigation field will be covered by the proposed primary pond and the two proposed wetland ponds as shown on Attachment "A." The existing disposal area has two tail water ponds to capture field runoff. Disposal in these areas will continue during and after the planned 2008-2009 Facility modifications.

Proposed Disposal Area:

The proposed disposal area includes the existing disposal area and an additional 250 acres of disposal area (referred to as the North Circle Irrigation Field). Thirty six acres of existing disposal area will be relocated because of the new primary pond and the two wetland ponds. The new fields are shown on Attachment "A" and identified as (N) Upper West and (N) Lower West fields. The completed Facility upgrades will bring total acreage available for production of fodder crops

to 570 acres. This addition is expected to provide enough acres in production such that fields may be periodically fallowed (not used), and will assist the Discharger to maintain agronomic water and nutrient application rates on the disposal areas. The proposed disposal area will include three new tail water ponds to capture run off from the disposal areas.

8. Sludge Treatment and Disposal

Currently sludge accumulates and is stored in the primary settling ponds and, to a lesser extent, in other ponds. Sludge accumulated in storage ponds 1 through 5, will be dried to a semi-solid consistency and mixed with soil to create a substrate for the two wetland cells to be constructed for wastewater treatment. No other sludge treatment or disposal is proposed by the Discharger. Based on the report of waste discharge, sludge may accumulate for 20 years or more in the proposed Facility prior to reaching levels that may necessitate removal. Sludge may be stored onsite indefinitely in the Facility ponds, or disposed of at an approved landfill. No other storage or reuse of sludge is authorized by this Order.

9. Authorized Disposal Area

The agricultural application areas described in Finding No. 7, above, are the only authorized disposal areas for wastewater. The authorized disposal areas for treated wastewater are located on State lands owned or administered by the California Department of Corrections and Rehabilitation.

10. Reclamation Requirements

The California Department of Public Health has established statewide reclamation criteria for the use of reclaimed water for irrigation of fodder crops not intended for use in the feed for dairy production. The criteria for wastewater used on fodder crops not intended for use in dairy production is found in the California Code of Regulations, title 22, section 60304, subdivision (d). The oxidized wastewater from the Facility is considered secondary recycled water and meets these criteria (independently of any subsequent chlorination process).

The Discharger has requested to use the treated wastewater for the construction of the upgrades for dust mitigation and for soil compaction. The Discharger will be required to follow regulations established by California Department of Public Health in California Code of Regulations, title 22, section 60307(b).

In accordance with California Water Code section 13523, the Water Board has consulted with the California Department of Public Health on the discharge from the wastewater treatment system to agricultural recycling areas. This Order includes requirements for reuse of the Facility wastewater as determined in consultation with the California Department of Public Health.

11. Site Geology

The predominant soils underlying the wastewater disposal area are Modoc-Truax complex, Cleghorn sandy loam, Ardep sandy loam, and Springmeyer sandy loam. The permeabilities of these soils range from moderately slow to moderately rapid. The Honlak loam, which is located within the southern buffer area of the proposed disposal site is poorly suited for irrigated crops because of high ground water. Faults beyond the site boundaries have the potential to cause strong earthquakes and ground shaking at the site. The Honey Lake/Fort Sage Fault Zone, 31 miles long and located eight miles southwest of the Facility, is the nearest potential seismically active area. The 1989 Uniform Building Code (UBC) indicates that the site is classified as Seismic Zone 3 and must have facilities constructed in accordance with the UBC Standards for Seismic Zone 3. Impoundment embankments have been constructed in accordance with requirements of the California Division of Safety of Dams.

12. Site Hydrology

Rainfall and snowmelt are primary sources of runoff from the Facility site. Industrial stormwater runoff from the Facility is subject to separate National Pollutant Discharge Elimination System (NPDES) permit requirements of the federal Clean Water Act, Section 402(p), and associated regulations applicable to sewage treatment facilities with average daily flows greater than one MGD. Storm water runoff from the disposal area and adjacent hills flows toward the south into the Honey Lake Valley, where storm water runoff either evaporates or reaches the Susan River. The Susan River flows into Honey Lake approximately 13 miles southeast of the Facility. Honey Lake is a terminal lake (no outflow) located near the California-Nevada border. Portions of the Facility are located within the boundary of the 100-year floodplain of the Susan River. Berms on wastewater ponds in the 100-year floodplain will prevent inundation by a flood of this magnitude. Adjacent to the authorized disposal area are riparian and marsh habitats that will be protected by a 100-foot-minimum open space buffer as shown in attachment "A." These buffer areas will not be affected by spray irrigation and agricultural development.

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 with respect to total dissolved solids (TDS) within this basin is described in the State Water Resources Control Board's 2002 *California 305(B) Report On Water Quality*, and indicates TDS averages 518 mg/l with a range of 89 – 2500 mg/l.

Local ground water quality may also be influenced by natural geothermal activity and/or geothermal fluids disposed of from the former Litchfield Geothermal Project (regulated under separate waste discharge requirements) located near the northerly boundary of the Facility site.

The prison draws water for municipal (MUN) use from two confined aquifers beneath the site consisting of interbedded, thin sand and gravel layers. The upper aquifer is located at a depth of 150 to 400 feet, and the lower aquifer begins at a depth of 625 to 655 feet. A mixture of ground waters from these two aquifers was analyzed in 1989. Results showed that the ground water was of better quality than that required to meet secondary drinking water standards (and some primary standards) for 24 tested parameters.

Prior to the Board Order update in 1995, the ground water was found to exist near the surface in a shallow unconfined aquifer underlying the Facility. Seasonally, ground water may rise to within ten feet or less of the pond bottoms. The nitrate concentrations in some monitoring wells have been observed infrequently in excess of the maximum contaminant levels for drinking water (10 mg/l for nitrate as N), with concentrations generally less than 5 mg/l. Water quality in the vicinity of the Facility has been regularly monitored with a network of ground water wells.

Local ground water movement follows the north-to-south topographic gradient towards the Susan River in the absence of significant human influences. However, the ground water was investigated during 2005-2006 due to an apparent increase of nitrates in the ground water in some monitoring wells and concern that the agricultural fields were being over-irrigated. The investigation indicated that the shallow ground water gradient observed in Facility and disposal area monitoring wells had shifted from the north-to-south topographic gradient towards the north and was influenced by pumping from two municipal production wells near the northern boundary of the property that draw substantial water for the prisons, as described further below.

14. Changes to Ground Water Gradients and Variability of Ground Water Data

The Discharger produced a ground water report (*Groundwater Technical Report Hydrogeologic Evaluation of the California Correctional Center Wastewater Treatment Facility*, September 7, 2005) that reviewed ground water data collected at the Facility and authorized disposal site between 1994 and 2005. The report evaluated available information collected by the Discharger on the ground water geology, chemistry, and ground water elevations. The report states (p. ii), ". . . the natural groundwater surface underlying the wastewater treatment facility most likely sloped from north to south; however, by 1994 discharge of geothermal heating water [from City of Susanville's Litchfield Geothermal Project]

rich in chloride and TDS [total dissolved solids] had created a mound slightly modifying previous groundwater flows. Moderate nitrate-N impact may have occurred downgradient (south) of the treatment ponds by 1994. Between 1995 and 1997 pumping from HDSP wells no. 217 and No. 218 reversed the groundwater gradient under most of the application areas capturing most, if not all, of the percolation from the sewer ponds and recharge from the application areas as the pumping depression has grown. Wells [for waste monitoring] that were formerly upgradient of the application areas are now downgradient of them and two . . . have gone dry from the declining water table in the pumping depression. The pre-1994 nitrate-N impacts south of the ponds diminished. Moderate to mild nitrate-N impacts appeared north of the ponds and started migrating northward toward the pumping wells. . . .”

The report preparer, Condor Earth Technologies, Inc., “concludes that natural background water quality at monitor wells is not available [at the site] and detection and evaluation of contamination can best be conducted with time-series plots of water chemistry. We recommend . . . that water quality at the supply wells be monitored for the arrival of nitrate, TDS, chloride, or other discharge constituents.”

Time-series plots of data obtained between 1994 and 2004 indicate overall decreasing trends for wells with elevated nitrate-N, with no monitoring well exceeding 10 mg/l of nitrate-N after August 1, 2001, and only a few wells consistently above 3 mg/l of nitrate-N, indicating areas of localized degradation. Trends with respect to other constituents are not readily apparent in the time-series plots. TDS in particular, is highly variable and ranges between from very low levels to thousands of mg/l in some monitoring wells, but most frequently occurs at levels at or below 2000 mg/l. One exception is monitoring well GW-6b, which decreased from a high of roughly 12,000 mg/l in 1996 to generally around 6000 mg/l after mid-2000.

Based on the foregoing, this Order includes new reporting requirements that require the Discharger to develop a method to analyze the ground water data collected from existing and proposed monitoring wells to determine if ground water is being degraded or adversely affected by the discharge. The Discharger will be required to perform an annual analysis to complete this reporting requirement.

15. Basin Plan

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

16. Receiving Waters

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

17. Beneficial Uses of Ground Water

The present and probable future beneficial uses of the ground waters of the Honey Lake Valley Basin (Department of Water Resources Basin No. 6-4), 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; and
- e. wildlife habitat.

18. Policy for Maintaining High Quality Waters

State Water Resources Control 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.

Ground water quality varies, does not meet all water quality objectives established to serve prescribed beneficial uses, and thus may not be considered "existing high quality waters." Degradation of the quality of the waters of the State is not anticipated or authorized as a result of the discharge, however. The existing ground water quality in the vicinity of the Facility will be maintained or improved as a result of the proposed Facility modifications.

The Discharger currently utilizes both soil-lined and bentonite-lined percolation ponds for storing the treated effluent. Domestic wastewater contains constituents such as TDS, pathogens, nitrates, organics, metals and oxygen demanding substances (BOD). The discharge from the Facility may currently be causing or

contributing to infrequent violations of applicable water quality objectives in ground water for certain constituents such as nitrate, as described in this Order and Cease and Desist Order No. R6T-2005-0016, due to percolation from unlined Facility ponds.

The upgraded wastewater treatment plant is designed to minimize the infiltration of wastewater to ground water to the extent feasible by including 60 mil HDPE liners for all proposed waste treatment and storage areas not previously lined (as described in this Order). Such HDPE liners currently meet or exceed best practicable technology-based control requirements. The proposed 60 mil HDPE liners have a permeability of 1.7×10^{-9} cm/sec (for water vapor), which will limit leakage loss rates to practically undetectable levels when taking into consideration the uncertainties and variability in measuring or estimating inflow and outflow, pond surface elevations, and annual pond evaporation. Residual percolation from the Facility ponds following the upgrades is expected to be negligible relative to the amount of ground water flowing beneath the Facility. The water quality effects of pond percolation are not expected to be readily detectable in the groundwater.

The proposed increase in discharge volume allows for an increase in the total loading of pollutants discharged to agricultural operations by the Discharger. However, the land application and wastewater reuse area for the discharge is being simultaneously increased in proportion to the flow increase so that the mass increase is not significant on an area basis (applied water and nutrients per acre will not increase). Maintaining agronomic rates of application of water and nutrients for the crops grown in the reuse/disposal areas include excess water to leach salts from the soils in the crop root zone. Based on current and proposed agricultural practices and existing ground water quality in the vicinity of the fields, salts or other wastewater constituents will not adversely affect the ground water quality in a manner that would impair the water for beneficial uses. Wastewater that is not evaporated is beneficially reused for agriculture and thus supports State goals of increasing beneficial wastewater reuse while providing the Discharger capacity to house its current inmate population.

The upgraded Facility will also provide, for the first time, a polishing level of treatment by providing 20 acres of lined, constructed wetlands. Effluent limitations for BOD and settleable solids, and receiving water limitations protective of beneficial uses, have been carried over from the previous Order. The effluent and receiving water limitations continue to be protective of water quality, the flow increase is not expected to contribute to the degradation of water quality in Honey Lake Valley ground water basin, and any adverse impact on existing water quality and beneficial uses of water from the discharge will be insignificant. These waste discharge requirements will ensure the highest water quality consistent with maximum benefit to the people of the State will be maintained. Monitoring at ground water monitoring stations around the surface

impoundments and the irrigation areas is included in this Order to verify the foregoing.

19. 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 existing ground water quality and past, present and probable future beneficial uses of water as described in finding nos. 13 and 16. The proposed discharge will not adversely affect present or probable future beneficial uses of water, including domestic water supply, agricultural supply and wildlife habitat.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

Finding nos. 11, 12, and 13 describe the environmental characteristics and quality of water available. As described in finding nos. 13 and 14, the total dissolved solids concentrations range from less than 100 mg/l to approximately 12,000 mg/l and may be influenced by natural geothermal waters entering the aquifer available for domestic supply.

(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, including application of waste water at agronomic rates and the lining of storage ponds will result in improved ground water quality. The Water Board has waste discharge requirements regulating the discharge of geothermal fluids from the adjacent Litchfield Geothermal project (Board Order No. 6-97-070). The Water Board will use its existing authority and waste discharge requirements to ensure protection of water quality from these discharges.

(d) Economic considerations.

This Order authorizes the Discharger to expand and upgrade its wastewater treatment and disposal system as proposed by the Discharger. The Order accepts the Discharger's proposal for 60 mil pond liners and land application at agronomic disposal rates as meeting the best practicable control method for protecting ground water quality from percolation of waste constituents in pond and disposal areas.

(e) The need for developing housing within the region.

The Discharger is not responsible for developing housing within the region other than to house California inmates. This Order provides for additional capacity to treat and control wastewater from the Facility.

(f) The need to develop and use recycled water.

This Order provides for increased appropriate use of recycled water. See finding no. 17.

20. California Environmental Quality Act

The Discharger, acting as California Environmental Quality Act (CEQA, Public Resources Code Section 21000, et seq.) Lead Agency certified the Final Environmental Impact Report (EIR) for the *Wastewater Treatment Plant Improvement Project for High Desert State Prison and California Correctional Center* (Project, SCH #2005102005) in June 2006. The Final EIR provides a detailed record concerning project effects. The Final EIR includes alternatives analyzed, legal, economic and technical considerations, operational descriptions, and other information crucial to understanding the Project proposal, and sets forth the basis for including or excluding mitigation measures for various identified impacts.

Following certification of the Final EIR, the Discharger/Lead Agency developed the specific plans for the Project, and noted that several changes were introduced to the Project that were not analyzed in the 2006 Project EIR, which was based on a conceptual facilities plan developed in 2004. In an April 13, 2008 Memorandum to the California Department of General Services, the Discharger/Lead Agency analyzed the proposed changes relative to the Project EIR and determined that preparation of a subsequent or supplemental EIR, as required in California Code of Regulations, title 14, section 15162 or 15163, is not necessary and set forth the reasons therein.

When an EIR has been prepared for a project, a Responsible Agency shall not approve the project as proposed, pursuant to California Code of Regulations, title 14, Section 15096, subdivision (g)(2), if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. In order to comply with Section 15096, subdivision (g)(2), the Water Board, acting as a CEQA Responsible Agency, has evaluated the significant and potentially significant impacts to water quality identified in the Project's Final EIR and the April 13, 2008 Memorandum to the California Department of General Services. The Water Board has determined that significant or potentially significant effects of the Project on water quality identified in the Final EIR are adequately

addressed or are mitigated to levels of insignificance by either the requirements in the Final EIR, and the requirements in this Board Order pertaining to storage pond liners construction, flow limits, agronomic usage requirements, and reclamation requirements.

The monitoring and reporting program requires the Discharger to produce a separate Construction Quality Assurance Report on the liner construction, monitor ground water for significant trends and report on the agronomic rates both planned and applied on the irrigation fields.

21. Notification of Interested Parties

The Water Board has notified the Discharger and all known interested agencies and persons of its intent to adopt revised waste discharge requirements.

22. Consideration of Interested Parties

The Water Board, in a public meeting on July 23-24, 2008 heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Board Order No. 6-95-23 and amendments No. 6-95-23A1 and No. 6-95-23A2 be rescinded except for enforcement purposes and, pursuant to California Water Code section 13263, the Discharger must comply with the following requirements.

I. DISCHARGE SPECIFICATIONS

A. Discharge/Effluent Limitation

1. Flow Rate Limitation

- a. Until written notice has been received from the Discharger that all necessary upgrades and Facility modifications described in the Discharger's March 28, 2008 report of waste discharge are completed, the discharge of wastewater to the authorized disposal site must not exceed 522 million gallons in a calendar year (January 1 to December 31). Agronomic application rates for water and nitrogen must be maintained at all times and may reduce the total amount of discharge below the 522 million gallon annual maximum.
- b. After written notice has been received from the Discharger that all necessary upgrades and Facility modifications described in the Discharger's March 28, 2008 report of waste discharge are completed, the discharge of wastewater to the authorized disposal site must not exceed 657 million gallons in a calendar year (January 1 to December 31). Agronomic application rates for water and nitrogen must be maintained at

all times and may reduce the total amount of discharge below the 657 million gallon annual maximum.

2. All wastewater made available for storage and disposal must not contain pollutant concentrations in excess of the following limits.

<u>Parameter</u>	<u>Units</u>	<u>30-day Mean</u>	<u>30- day Maximum</u>
Biochemical Oxygen Demand	mg/l	30	45
Methylene Blue Active Substances	mg/l	1.0	2.0

3. All wastewater made available for recycling at the authorized disposal sites must have a pH of not less than 6.5 pH units nor more than 8.5 pH units. A pH over 8.5 is allowed if this results from a biological process within the treatment plant or storage ponds.
4. Wastewater discharged to storage ponds must have a dissolved oxygen concentration of 1 mg/l or greater.

B. Reclamation Requirements

1. All effluent made available for spray irrigation of fodder and fiber crops, and seed crops not eaten by humans, must meet requirements for undisinfected "secondary recycled water" in California Code of Regulations, title 22, section 60301.900.
2. The irrigation sites must be graded to prevent persistent ponding of wastewater that promotes the breeding of mosquitoes.
3. The irrigation sites must be properly fenced to restrict public access.
4. The discharge volume of treated wastewater must not exceed agronomic rates for the specific crop(s) grown.
5. The discharge of total nitrogen must not exceed agronomic rates for the specific crop(s) grown.
6. No irrigation with, or impoundment of, undisinfected secondary recycled water shall take place within 150 feet of any domestic water supply well.
7. The discharge must not cause over spray, mist or runoff to enter dwellings, designated outdoor eating areas or food handling facilities.
8. The discharge must not cause overspray, mist or runoff to reach a drinking water fountain.
9. All areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in size no less than 4 inches high by 8 inches wide that include the following wording: "Recycled Water -Do Not Drink." Signs must be posted at locations and spacings acceptable to the California Department of Public Health. Each sign shall display an international symbol similar to that shown in Figure 60310-A in the

California Code of Regulations, title 22, section 60310. An alternative sign and language may be used but it must be acceptable to the California Department of Public Health and the Water Board Executive Officer.

10. The Discharger must comply with specifications of the California Department of Public Health concerning reuse of wastewater and contingency planning for treatment upsets, including preparation and submittal of such engineering or monitoring reports as may be required pursuant to Title 22.
11. All effluent made available for use for dust control and compaction must meet requirements for "disinfected secondary-23 recycled water" in California Code of Regulations, title 22, section 60307(b). Disinfected secondary-23 recycled water as defined in California Code of Regulations, title 22, section 60301.225 means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven days from which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliter in more than one sample in any 30 day period.
12. No discharge of "disinfected secondary-23 recycled water" being used for construction purposes may occur within 100 feet of any domestic water supply well.

C. Receiving Water Limitations

The discharge of treated wastewater shall not cause the presence of the following substances or conditions in the ground waters of the Honey Lake Valley ground water basin:

1. Any perceptible color, odor, taste or foaming.
2. Coliform organisms attributable to human waste.
3. Toxic substances in concentrations that individually, collectively or cumulatively cause detrimental physiological responses in human, plants, animals, or aquatic life.
4. Identifiable chlorinated hydrocarbons, organophosphates, carbonates, and other pesticides and herbicide groups, in summations, in excess of the lowest detectable levels.
5. Concentrations of chemical constituents in excess of the maximum contaminant levels or secondary maximum contaminant levels based upon drinking water standards specified by the more restrictive of the California Code of Regulations, Title 22, Division 4, Chapter 15, or 40 CFR, part 141.

D. General Requirements and Prohibitions

1. There shall be no discharge, bypass, or diversion of raw or partially treated sewage, grease, or oils from the collections, transport, treatment or disposal facilities to adjacent land areas or surface waters.
2. Surface flow or visible discharges of sewage or sewage effluent as, or from the authorized disposal area to adjacent land areas or surface water is prohibited.
3. The vertical distance between the treated effluent and the lowest point on a pond dike must not be less than two feet.
4. The discharge shall not cause pollution as defined in section 13050 of the California Water Code, or threatened pollution.
5. Neither the treatment nor the discharge shall cause a nuisance as defined in the section 13050 of the California Water Code.
6. The discharge of wastewater except to the authorized disposal area is prohibited. The authorized disposal area is shown on Attachment "A," page 1 of 2.
7. The integrity of the pond liners 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. Special Provisions for Pond Construction

1. A Construction Quality Assurance (CQA) Plan was submitted to the Water Board with the report of waste discharge. The CQA Plan includes construction specifications and other specifications for correctly installing the HDPE liners, including but not limited to, subgrade preparation, inspection frequencies for liner construction, testing specifications for both destructive testing and non-destructive HDPE liner testing, and qualifications for the CQA Officer and the CQA inspector. All HDPE pond liners must be constructed in accordance with construction specifications and requirements of the CQA Plan.
2. No discharge may occur to a new pond or a newly-lined, existing pond until the Water Board Executive Officer accepts a report from the CQA Officer that certifies the pond or ponds have been constructed in accordance with the design and tested as required by the CQA plan. CQA reports may be submitted independently for each pond liner installed to allow that pond to go into use prior to the entire project or all ponds being complete.

B. Standard Provisions

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

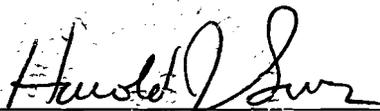
C. Monitoring and Reporting

1. Pursuant to section 13267 of the California Water Code, the Discharger must comply with Monitoring and Reporting Program No. 2008-(Proposed) 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 Monitoring and Reporting Program No. 2008-(Proposed).

D. Operator Certification

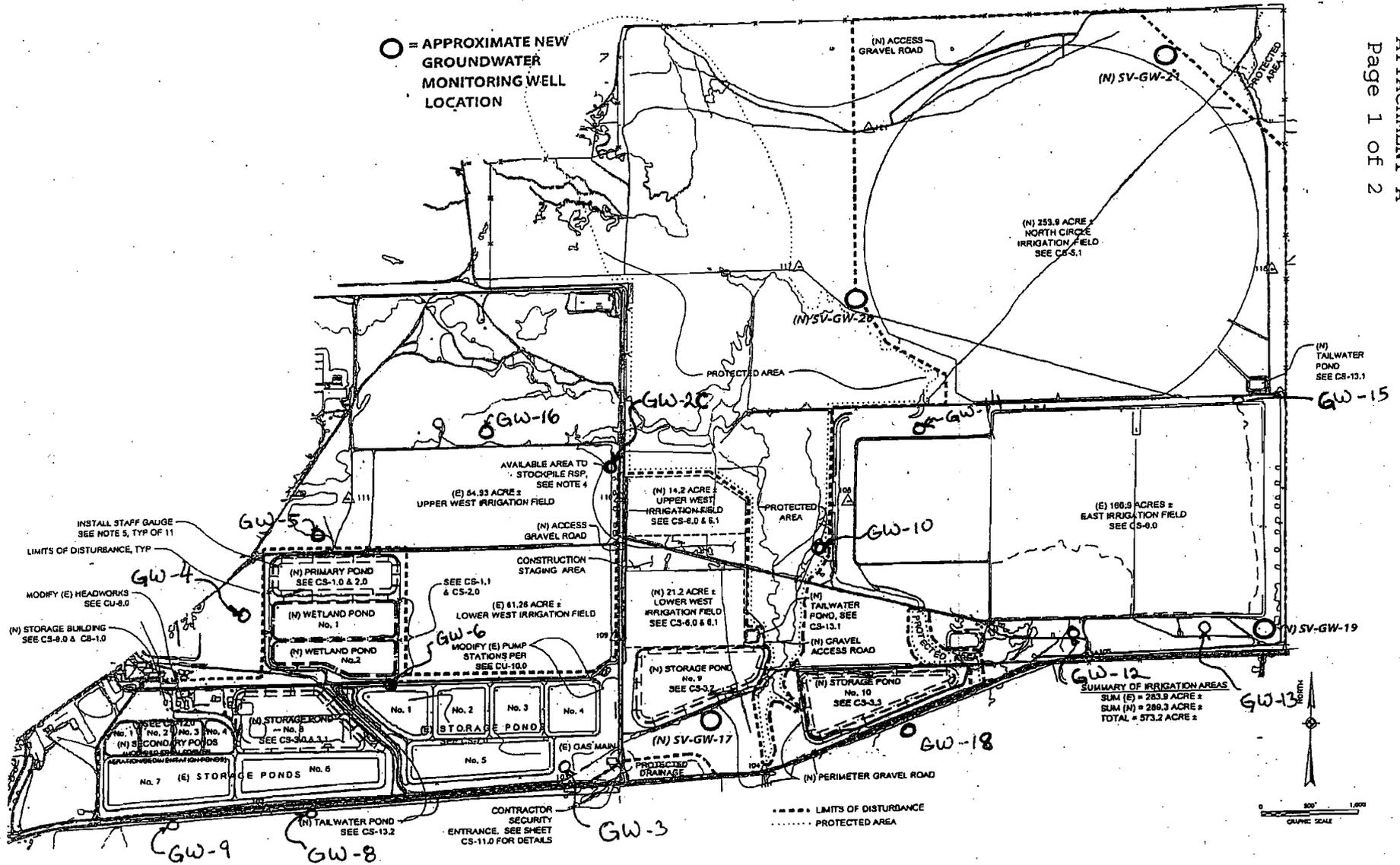
The Discharger's wastewater treatment plant must be supervised by personnel possessing a wastewater treatment plant operator certificate of the appropriate grade pursuant to the California Code of Regulations, title 23, division 3, chapter 26,

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on July 23, 2008.



HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment A: Overall Site Plan; Facility and Disposal Areas
Attachment B: Standard Provisions for Waste Discharge Requirements



ATTACHMENT B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

STANDARD PROVISIONS FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

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

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.
- e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or

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

- f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

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

4. Duty to Comply

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

5. Duty to Mitigate

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

6. Proper Operation and Maintenance

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

7. Waste Discharge Requirement Actions

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

8. Property Rights

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

9. Enforcement

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

10. Availability

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

11. Severability

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

12. Public Access

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

13. Transfers

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

14. Definitions

- a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.
- b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

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