

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LAHONTAN REGION

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ORDER NO. R6T-2008-0022
NPDES NO. CA0102695

**WASTE DISCHARGE REQUIREMENTS FOR THE
 SUSANVILLE SANITARY DISTRICT, WASTEWATER TREATMENT PLANT
 DISCHARGE TO THE JENSEN SLOUGH VIA OUTFALL 001**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Susanville Sanitary District
Name of Facility	Wastewater Treatment Plant
Facility Address	476-200 Paul Bunyan Road
	Susanville, CA 96130
	Lassen County
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) have classified this discharge as a <u>major</u> discharge.	

The discharge by the Susanville Sanitary District from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001 (JA-1)	Dechlorinated wastewater effluent	40°, 24', 50" N	120°, 37', 0" W	Jensen Slough

Table 3. Administrative Information

This Order was adopted by the Lahontan Water Board on:	July 23, 2008
This Order shall become effective on:	August 22, 2008
This Order shall expire on:	July 23, 2013
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	<u>180 days prior to the Order expiration date</u>

I, Harold J. Singer, Executive Officer, do hereby certify that this Order with all attachments is a 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

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Susanville Sanitary District
Name of Facility	Wastewater Treatment Facility, Susanville
Facility Address	476-200 Bunyan Road
	Susanville, CA 96130
	Lassen County
Facility Contact, Title, and Phone	Randy O'Hern, General Manager, (530) 257 - 5665
Mailing Address	45 S. Roop Street P.O. Box 152 Susanville, CA 96130
Type of Facility	Publicly Owned Treatment Works
Facility Design Flow	2.0 Million Gallons per Day (MGD)

II. FINDINGS

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

A. Background. The Susanville Sanitary District (hereinafter Discharger) is currently discharging pursuant to Order No. R6T-2002-0031 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0102695. The Discharger submitted a Report of Waste Discharge, dated November 1, 2006, and applied for a NPDES permit renewal to discharge up to 2.0 MGD of treated wastewater from the Susanville Sanitary District Wastewater Treatment Plant, hereinafter Facility. The application was deemed complete on March 24, 2007.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. The Discharger owns and operates the wastewater treatment plant. The treatment system consists of screening, grit removal, extended aeration sludge processing, secondary clarification, disinfection and dechlorination processes. The treatment system also includes two emergency storage ponds that can receive wastewater from the influent distribution box or from the chlorine contact chamber box. The two emergency storage ponds are shown in Attachment C1 and C2 and may be used during system problems to store wastewater and return the wastewater back into the head works. The wastewater is discharged from a polishing wetland to an irrigation channel that crosses three separate ranches not under the ownership or control of the Discharger.

Each ranch flood irrigates using water from both the wastewater irrigation channel and from Jensen Slough. The Jensen Slough is considered a water of the United States, and a tributary to the Susan River. Tail water from irrigation practice, which may be a mixture of water from Jensen slough and treated effluent, is returned to Jensen Slough for use at the next ranch. At the third property the wastewater combined with Jensen slough water is used for irrigation or the combined flow goes to the Susan River, which is where the Jensen Slough terminates. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

- C. Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).
- D. Background and Rationale for Requirements.** The Lahontan Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachment A through I are also incorporated into this Order.
- E. California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.
- F. Technology-Based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations¹, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet.
- G. Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant,

¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Lahontan Water Board adopted a Water Quality Control Plan for the Lahontan Region on March 31, 1995 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan on page 2-3 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for the Jensen Slough, but does identify present and potential uses for the Susan River, to which the Jensen Slough, is tributary. Because the Jensen Slough is tributary to the Susan River, this permit continues to use the water quality objectives for the Susan River at Litchfield based on the Basin Plan's "tributary rule," which provides that water quality standards for specific waterbodies apply upstream to tributaries for which no site-specific standards have been adopted."

These beneficial uses are: municipal and domestic supply, agricultural supply, industrial supply, ground water recharge, freshwater replenishment, navigation, water-contact recreation, non-contact water recreation, commercial and sport fishing, warm freshwater habitat, cold freshwater habitat, wildlife habitat, migration of aquatic organisms, spawning, reproduction and development. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, as discussed in detail in the Fact Sheet, beneficial uses applicable to the Jensen Slough are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Jensen Slough	<u>Existing:</u> Municipal and domestic water supply (MUN); Agricultural supply (AGR); Industrial supply (IND); Ground water recharge (GWR); Freshwater replenishment (FRSH); Navigation (NAV); contact (REC-1) and non-contact (REC-2) water recreation; Commercial and sportfishing (COMM); Warm freshwater habitat (WARM); Cold freshwater habitat (COLD); Wildlife habitat (WILD); Migration of aquatic organisms (MIGR); Spawning, reproduction and development (SPWN).

The Basin Plan also identifies beneficial uses of ground water at page 4.6-1 that are applicable to all subsurface waters in the Lahontan Region. Beneficial uses of specific ground water basins in the Lahontan Region are designated in Table 2-2 of the Basin Plan. The Facility is located within the Honey Lake Ground Water Basin. Unless otherwise designated by the Lahontan Water Board, all ground waters are considered suitable, or potentially suitable, for municipal or domestic water supply (MUN).

Table 6. Ground Water Basin Plan Beneficial Uses

Basin Name	Beneficial Use(s)
Honey Lake Ground Water Basin	Beneficial Uses; <u>Existing:</u> Municipal and domestic water supply (MUN); Agricultural supply (AGR); Industrial supply (IND); Freshwater replenishment (FRSH); Wildlife habitat (WILD).

Requirements of this Order implement the Basin Plan.

On June 28, 2007 USEPA gave final approval to California's 2006 section 303(d) List of Water Quality Limited Segments. The Susan River is listed as an impaired water body for toxicity pursuant to Section 303(d) of the Clean Water Act. US EPA testing in 1990 on the Susan River identified toxicity to larval fish and the aquatic plant, duckweed. The cause(s) of toxicity were not identified.

The Susan River was placed on the federal Clean Water Act, Section 303(d) list of impaired water bodies for unknown toxicity. While the toxicity observed in the Susan River samples is a violation of the Lahontan Basin Plan narrative water quality objective for toxicity, potential impacts of the toxicity results on biological communities in the Susan River is incompletely known. The Susan River will continue to be 303(d)-listed for "unknown toxicity", but a TMDL is not currently recommended as the appropriate regulatory response since the pollutant(s) causing toxicity has not been decisively identified.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

- J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Lahontan Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Lahontan Water Board, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules and interim effluent limitations.

L. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on biological oxygen demand, suspended solids and pH. These restrictions are discussed in the Fact Sheet, section IV.B.2. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

This Order contains pollutant restrictions that are more stringent than applicable federal requirements and standards. Specifically, this Order includes effluent limitations for pH that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in the Fact Sheet section IV.C.3.

- N. Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Lahontan Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- O. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- P. Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Lahontan Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- Q. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Lahontan Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- R. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, V.B, and VI.C. of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

- S. Notification of Interested Parties.** The Lahontan Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- T. Consideration of Public Comment.** The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

IT IS HEREBY ORDERED, that Order No. R6T-2002-0031 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. General Requirements and Prohibitions

1. The discharge of wastewater, except to the authorized disposal site (001 as described in this Order) and to the emergency storage ponds, is prohibited.
2. There shall be no discharge, bypass, or diversion of raw or partially treated wastewater, wastewater sludge, grease, or oils from the collection, transport, treatment, emergency storage, or disposal facilities to adjacent land areas, or surface waters.
3. All facilities used for collection, transport, treatment, or disposal of waste shall be adequately protected against overflow, washout or inundation from a storm, or flood having a recurrence interval of once of in 100 years.
4. Waste organic sludge shall be discharged only at a legal point of disposal in accordance with the provisions of Title 23, Division 3, Chapter 15 and Title 27, section 20220 (c) of the California Code of Regulations.
5. The discharge shall not cause pollution, or a threatened pollution as defined by Section 13050(l) of California Water Code.
6. The collection, transport, treatment, storage, or discharge of waste shall not cause a nuisance as defined by Section 13050(m) of California Water Code.

B. Emergency Storage Ponds

1. The discharge of untreated or partially treated wastewater to the emergency storage ponds is prohibited, except when any of the following occur:
 - a. Loss of electrical power at the wastewater treatment facility;
 - b. Major equipment failure at the wastewater treatment facility;
 - c. Wastewater treatment process upset;
 - d. Excessive infiltration/inflow into sewerage facilities;
 - e. Any other emergency that could threaten the public health;

- f. Vacuum truck wastes are discharged from maintenance or spills;
 - g. For routine maintenance of the chlorine contact chamber; or
 - h. Emergency maintenance activities upon written approval of Lahontan Water Board Executive Officer.
2. The Discharger shall notify Lahontan Water Board staff by telephone as soon as it or its agents have knowledge of any discharge in any single continuous event in excess of 10,000 gallons of untreated or partially treated wastewater to the emergency storage basin, and confirm this notification in writing within one week of the telephone notification. The written notification shall contain pertinent information explaining reasons for the discharge, and indicating steps taken, and dates thereof, to correct the problem and prevent it from reoccurring. An estimate of the amount of flow discharged should also be included.
3. The Discharger must, as soon as is practicable, treat the wastes discharged into the emergency storage ponds by pumping the waste back into the treatment system for treatment prior to being discharged to Jensen slough.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

- a. The rate of flow from the facility averaged for any month must not be more than 2.0 million gallons per day (MGD).
- b. The effluent must not contain trace elements, pollutants, contaminants, or combinations thereof, in concentrations which are toxic or harmful to human, aquatic, terrestrial plant or animal life.
- c. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured described in Attachment E, Table E-3:

Table 7. Final Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Daily Effluent Flow	MGD	2.0	---	---	---	---
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	mg/L	30	45	---	---	---
	Lbs/day ¹	500	751	---	---	---
Total Suspended Solids (TSS)	mg/L	30	45	---	---	---
	Lbs/day ¹	500	751	---	---	---
pH	pH units	---	---	---	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	---	---	---	---
Residual Chlorine	mg/L	0.01	---	---	---	0.02

“---” No effluent limitation is applicable.

¹ The mass-based effluent limitations are based on a design capacity of 2.0 MGD.

2. Effluent Limitation within the treatment system EFF-002

The Discharger must meet the California Code of Federal Regulations, Title 22 for “Disinfected secondary-23 recycled water,” 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 for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.

3. Interim Effluent Limitations – Not Applicable

C. Land Discharge Specifications – Not Applicable

D. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and are carried forward from the previous Order. As such, they are a required part of the proposed Order.
2. The discharge shall not cause the following limits to be exceeded in the Susan River and its tributaries:

Table 8. Receiving Water Limitations

Parameter	Units	Receiving Water Limitation	
		Annual Mean	Maximum
Total Dissolved Solids	mg/L	185	250
Chloride	mg/L	4.2	7.5
Total Nitrogen	mg/L	0.65	0.85
Total Phosphorus	mg/L	0.25	0.30
Sulfate	mg/L	25	40
Un-ionized Ammonia	mg/L	--	0.025
Boron	mg/L	0.1	0.2
Adjusted Sodium Adsorption Ratio (calculated)	N/A	2.5	--

3. If the constituent concentration of the receiving water just above the discharge point exceeds the level in Table 7, the discharge must not cause a statistically significant increase (at a 90 percent confidence level) in the concentration below the discharge point when compared to the concentration upstream of the discharge.
4. Water Quality Objectives Which Apply to All Surface Waters: these narrative and numerical water quality objectives apply to all surface waters (including wetlands) within the Lahontan Region and can be found at section 3-3 of the Basin Plan. The discharge to surface waters of flows generated within, or as a result of, the Facility shall not cause a violation of the following water quality objectives for the waters of the Susan River Hydrologic Area:

Ammonia: The neutral, unionized ammonia species (NH_3) is highly toxic to freshwater fish. The fraction of toxic NH_3 to total ammonia species ($\text{NH}_4^+ + \text{NH}_3$) is a function of temperature and pH. Ammonia concentrations shall not exceed the values listed for the corresponding conditions in the table 3-1 through 3-4 of the Basin Plan. For temperature and pH values not explicitly in these tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas developed by the USEPA.

Bacteria, Coliform: Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20 MPN per 100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40 MPN per 100 ml. *The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20 MPN per 100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.*

Biostimulatory Substances: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.

Chemical Constituents: Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions in the California Code of Regulations Title 22, Division 4, Chapter 15 in the following Articles: Article 4 - Inorganic Chemicals, Article 4, section 644422.2 - Fluoride, Article 5.5 - Organic Chemicals, and Article 16- both the Secondary Maximum Contaminant Levels Consumer Acceptance Limits and Secondary Maximum Contaminant Levels-Ranges. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

Waters designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

Chlorine, Total Residual: For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L in the receiving water. Median values shall be based on daily measurements taken within any six-month period.

Color: Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

Dissolved Oxygen: The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. For waters with the beneficial uses of COLD, COLD with SPWN, WARM, and WARM with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified in Table 3-6 of the Basin Plan.

Floating Materials: Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.

For natural high quality waters, the concentrations of floating material shall not be altered to the extent that such alterations are discernable at the 10 percent significance level.

Oil and Grease: Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on

objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses.

For natural high quality waters, the concentration of oils, greases, or other film or coat generating substances shall not be altered.

Non-degradation of Aquatic Communities and Populations: All wetlands shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life.

All wetlands shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.

Pesticides: For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (California Food & Agricultural Code § 12754.5).

Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in the California Code of Regulation Title 22, Division 4, Chapter 15, Article 5.5 -Organic Chemicals is incorporated by reference into this order. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

pH: In fresh waters with designated beneficial uses of COLD or WARM, changes in normal ambient pH levels shall not exceed 0.5 pH units. For all other waters of the Region, the pH shall not be depressed below 6.5 nor raised above 8.5.

The Lahontan Water Board recognizes that some waters of the Region may have natural pH levels outside of the 6.5 to 8.5 range. Compliance with the pH objective for these waters will be determined on a case-by case basis.

Radioactivity: Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

Waters designated as MUN shall not contain concentrations of radionuclides in excess of the limits specified in the California Code of Regulations Title 22, Division 4, Chapter 15, Article 5, which is incorporated by reference into this order. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

Sediment: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.

Settleable Materials: Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of settleable materials shall not be raised by more than 0.1 milliliter per liter.

Suspended Materials: Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affects the water for beneficial uses.

For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

Taste and Odor: Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For naturally high quality waters, the taste and odor shall not be altered.

Temperature: The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Lahontan Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses.

For waters designated WARM, water temperature shall not be altered by more than five degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered.

Toxicity: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. *Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Lahontan Water Board.*

The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control

water that is consistent with the requirements for "experimental water" as defined in the most recent edition of *Standard Methods for the Examination of Water and Wastewater* (American Public Health Association, et al.).

Turbidity: Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

B. Groundwater Limitations

1. The ground water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and are carried forward from the previous Order. As such, they are a required part of the proposed Order.
2. The discharge shall not cause a violation of the following water quality objectives for the waters of the Honey Lake Valley Ground Water Basin (Dept. of Water Resource Basin No. 6-4):

Bacteria, Coliform: In ground waters designated as MUN, the median concentration of coliform organisms over any 7-day period shall be less than 1.1 MPN per 100 ml.

Chemical Constituents: Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions in the California Code of Regulations Title 22, Division 4, Chapter 15 in the following Articles: Article 4 - Inorganic Chemicals, Article 4, section 644422.2 - Fluoride, Article 5.5 - Organic Chemicals, and Article 16- both the Secondary Maximum Contaminant Levels Consumer Acceptance Limits and Secondary Maximum Contaminant Levels-Ranges. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

Ground waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

Radioactivity: Ground waters designated as MUN shall not contain concentrations of radionuclides in excess of the limits specified in the California Code of Regulations Title 22, Division 4, Chapter 15, Article 5 Radioactivity.

Tastes and Odors: Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as MUN, at a minimum, concentrations shall not exceed adopted secondary maximum contaminant levels specified in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 16.

VI. PROVISIONS

A. Standard Provisions

- 1. Federal Standard Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

2. Water Board Standard Provisions – Not Applicable

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

Toxicity Reduction Requirements

If the discharge causes or contributes to chronic toxicity in the receiving water, a Toxicity Reduction Evaluation (TRE) as defined in Attachment A shall be required. The Lahontan Water Board shall require the Discharger to conduct a TRE if repeated tests reveal toxicity as a result of waste discharge under this Order. The Discharger shall take all reasonable steps to control toxicity once the source of toxicity is identified. Failure to conduct the required toxicity tests or a TRE may result in reopening this Order to establish effluent limitations for chronic toxicity, and/or enforcement action as authorized by law.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

- i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or
- ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

b. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Lahontan Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Lahontan Water Board including:
 - (a) All PMP monitoring results for the previous year;
 - (b) A list of potential sources of the reportable priority pollutant(s);
 - (c) A summary of all actions undertaken pursuant to the control strategy; and
 - (d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

- a. The Discharger's wastewater treatment facility shall be supervised by people who possess a wastewater treatment plant operator certificate of appropriate grade pursuant to the California Code of Regulations, Title 23, Division 3, Chapter 26, Article 3.
- b. Infiltration/inflow into sewerage facilities from stormwater or nuisance water shall be minimized to the maximum extent practicable.
- c. All facilities used for collection, transportation, treatment, 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.

5. Special Provisions for Municipal Facilities (POTWs Only)

- a. Pretreatment Specifications – Not Applicable
- b. Sludge/Biosolids Disposal
 - i. Pursuant to 40 CFR part 503.1 the Discharger is a public owned treatment works that has a design flow of greater than 1 MGD and is subject to record keeping associated with removed biosolids/sewage sludge.
 - ii. The Discharger must maintain a permanent log of all solids and biosolids hauled away from the treatment facility for use or disposal elsewhere. The log shall include a summary of the volume, type (screening, grit, raw sludge, and digested sludge), use (agricultural, composting, etc.) and destination in accordance with the monitoring and reporting program of this Order.
 - iii. Collected screenings, biosolids, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with State Water Resources Control Board and Integrated Waste Management Board's joint regulations (Title 27) of the CCR.
 - iv. The Discharger shall submit to the Lahontan Water Board a copy of the annual biosolids report required to be submitted to USEPA, if one is prepared pursuant to 40 CFR Part 503.
- c. The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 C.F.R. § 122.41(e)). The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. § 122.41(d)). See Attachment D, subsections I.D, V.E, V.H, and I.C.

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data.

When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge (or when applicable, the median determined by subsection B above for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.