CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

December 28, 2015

To All Interested Persons And Agencies:

Tentative Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Surface Water Disposal of Treated Groundwater in the Lahontan Region

Enclosed is a tentative Board Order for a region-wide general permit for the surface water disposal of treated groundwater. The California Regional Water Quality Control Board, Lahontan Region (Water Board) is considering issuance of Waste Discharge Requirements within a National Pollution Discharge Elimination System (NPDES) permit for eligible discharges that meet criteria set forth in this general order.

The tentative Board Order is intended to revise and update the previous requirements in Board Order No. R6T-2010-0024, which covered discharge to surface water of treated groundwater from pump and treat systems associated with the remediation of unauthorized releases of chlorinated and non-chlorinated petroleum hydrocarbons. The types of facilities covered were underground and aboveground fuel storage tank sites and similar sites where petroleum releases occur.

The enclosed tentative Board Order expands the types of facilities covered to include: gas stations, landfills, mines, mills, rail yards, industrial manufacturing sites, maintenance yards, dry cleaners, and petroleum bulk storage and pipeline facilities. The tentative Board Order has been reformatted to be consistent with similar NPDES permits in California and content has been updated to include the following:

- several inorganic pollutants of concern (nitrate, perchlorate, arsenic, and chromium VI)
- calculated effluent limitations pursuant to the State Implementation Policy
- specific Water Quality Objectives for individual receiving waters

The Water Board requests you review the tentative Board Order and provide your written comments no later than **January 29, 2016**. Written comments received after this date may not be considered when preparing the final proposed Board Order.

KIMBERLY COX, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER

2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 | 14440 Civic Dr., Ste. 200, Victorville, CA 92392
e-mail Lahontan@waterboards.ca.gov | website www.waterboards.ca.gov/lahontan

RECYCLED PAPER

In support of the Paper Reduction Act, we prefer written comments be emailed to John Steude at John.Steude@waterboards.ca.gov, or you may mail a hard copy to Mr. Steude at the following address:

Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
Attn: John Steude

The Water Board is scheduled to consider this item at its public meeting on March 9-10, 2016 in South Lake Tahoe. Approximately 10 to 15 days prior to each meeting, the Water Board publishes its agenda on the Internet at http://www.waterboards.ca.gov/lahontan/board_info/agenda/upcoming.shtml#top. The Item as presented to the Water Board will be posted to the Water Board's website under web-hyperlinks in the agenda.

If you prefer to receive a hard copy of the Water Board meeting agenda, please contact John Steude at (530) 542-5571 or John.Steude@waterboards.ca.gov.

John Steude

John Steude, P.G.
Engineering Geologist

Enclosures: 1) Tentative Board Order

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

TENTATIVE ORDER R6T-2016-00XX
GENERAL NPDES NO. CAG916001

WASTE DISCHARGE REQUIREMENTS FOR SURFACE WATER DISPOSAL OF TREATED GROUNDWATER

The following Dischargers are subject to waste discharge requirements (WDRs) set forth in this General Order upon authorization by a Notice of Applicability (NOA) from the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) Executive Officer:

Table 1. Discharger Information

Discharger	This General Order applies to individuals, public agencies, private businesses, and other legal entities (hereafter Dischargers) discharging or proposing to discharge treated groundwater from a pump-and-treat cleanup system to surface waters of the Lahontan Region. Pump-and-treat cleanup systems are typically related to unauthorized releases regulated under the Lahontan Water Board's underground storage tank, site cleanup, and land disposal programs. Sites in these programs are varied and include, but are not limited to, gas stations, landfills, mines, mills, rail yards, industrial manufacturing sites, maintenance yards, dry cleaners, and petroleum bulk storage and pipeline facilities.

Table 2. Discharge Description

Effluent Description	Receiving Water
Discharges of treated groundwater from cleanups of pollution to surface waters.	Surface Waters within the Lahontan Region

Table 3. Administrative Information

This General Order was adopted on:	**March X, 2016**
This General Order shall become effective on:	**<DATE>**
This General Order shall expire on:	**<DATE>**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Lahontan Region have classified these discharges as follows:	**Minor**

Those Dischargers who are covered under this General Order at the time of expiration will continue to be covered until coverage becomes effective under a reissued General Order. Only those treatment systems authorized to discharge under the expiring General Order and who submit a Notice of Intent (NOI) at least 30 days prior to the expiration date of this General Order will remain authorized to discharge under the administratively continued permit conditions.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this General Order.

I, Patty Kouyoumdjian, Executive Officer, do hereby certify that this General Order with all attachments is a full, true, and correct copy of the General Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on March X, 2016.

_____
Patty Kouyoumdjian, Executive Officer

TENTATIVE

Table of Contents

I. Facility Information 1
II. Notification Requirements 1
III. Findings 3
IV. Discharge Prohibitions 4
A. Region-wide Prohibitions 4
B. Lake Tahoe Hydrologic Unit Prohibitions 4
C. Mono Lake Hydrologic Unit Prohibitions 5
D. Other Discharge Prohibitions 5
V. Effluent Limitations and Discharge Specifications 6
A. Effluent Limitations 6
1. Final Effluent Limitations 6
VI. Other Discharge Specifications – Not Applicable 7
VII. Land Discharge Specifications – Not Applicable 7
VIII. Recycling Specifications – Not Applicable 7
IX. Receiving Water Limitations 7
A. Surface Water Limitations 7
B. Surface Water Limitations – Lake Tahoe 10
X. Provisions 10
A. Standard Provisions 10
B. Monitoring and Reporting Program (MRP) Requirements 12
C. Special Provisions 12
1. Reopener Provisions 12
2. Special Studies,Technical Reports and Additional Monitoring Requirements 12
3. Best Management Practices and Pollution Prevention – Not Applicable 13
4. Construction, Operation and Maintenance Specifications – Not Applicable 13
5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable 13
6. Other Special Provisions 13
7. Compliance Schedules – Not Applicable 13
XI. Compliance Determination 14

Tables

Table 1. Discharger Information 1
Table 2. Discharge Description 1
Table 3. Administrative Information 1
Table 4. Effluent Limitations 6

Attachments

Attachment A – Definitions A-1
Attachment B – Notice of Intent B-1
Attachment C – Information to Support the NOI C-1
Attachment D – Standard Provisions D-1
Attachment E – Monitoring and Reporting Program E-1
Attachment F – Fact Sheet F-1
Attachment G - Water Quality Objectives For Priority Pollutants G-1
Attachment H - Dioxin and Furan Sampling H-1

TENTATIVE

I. FACILITY INFORMATION

A. Eligible Facilities

This General Order regulates the discharge of treated groundwater to surface waters of the United States from treatment systems.

The entity or entities responsible for the discharge of waste from a groundwater treatment system and the property owner are considered as "Discharger" for the purposes of this Order.

This Order shall apply only to discharges that meet both of the following conditions:

1. The identified pollutants have effluent limitations prescribed in this Order; and

2. The general water quality of treated discharge is of equal or better water quality than that of the receiving water. General water quality is to be determined as part of the permit application process.

B. Authorized Discharges

1. This General Order covers discharges of treated groundwater to surface waters of the U.S. in the Lahontan Region. The discharges may be short-term, long-term, or intermittent.

2. Discharges authorized by this General Order must demonstrate that the discharge meets the following criteria:

a. Except those pollutants for which compliance with water quality-based effluent limitations is required in section V of this General Order, constituent concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to an excursion above any applicable federal water quality criterion established by the U. S. Environmental Protection Agency (U.S. EPA) pursuant to the Clean Water Act (CWA) section 303, or any water quality objective adopted by the Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) or State Water Resources Control Board (State Water Board), including prohibitions of discharge for the receiving waters.

b. The discharge does not cause acute or chronic toxicity in the receiving water.

3. Authorized discharges are subject to all the requirements and provisions set forth in this General Order and the site-specific requirements set forth in the Notice of Applicability (NOA) which may be issued by the Executive Officer to establish coverage under this General Order.

4. This General Order does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharge of pollutants, that are not part of the normal operations of treatment facilities as described in the Discharger's Notice of Intent (NOI), or any pollutants that are not ordinarily present in such waste streams.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

Existing Dischargers shall retain coverage under the administratively continued permit conditions for a period of 120 days following the effective date of this General Order. Existing Dischargers who wish to continue the discharge under this General Order are required to submit a complete NOI within 60 days following the effective date of this General Order. If an existing Discharger does not submit a complete NOI in accordance with this section,

TENTATIVE

authorization to discharge will automatically be terminated 120 days following the effective date of this General Order and the discharge shall be prohibited thereafter.

A new Discharger must submit an NOI and the first annual filing fee at least 30 days prior to initiation of a new discharge.

New Dischargers applying for coverage under this Order are required, as part of the NOI, to submit data on the effluent and the receiving water sufficient to determine if any water quality-based effluent limitations (WQBELs) are required in an individual discharge permit pursuant to the California Toxics Rule (CTR). It is the Discharger's responsibility to provide the data and information requested by the Lahontan Water Board for use in the analysis prior to Notice of Applicability (NOA) issuance. Attachment G, Water Quality Objectives for Priority Pollutants, lists all 126 priority pollutants and also lists each pollutant's criterion concentration and basis, suggested analytical method, and minimum laboratory reporting level. Attachment H lists the dioxin and furan sampling requirements, which are not required for Dischargers who previously sampled for dioxins and furans while enrolled under Order R6T-2010-0024. Effluent and receiving water sampling is not required for Dischargers who previously sampled for all 126 priority pollutants under Order R6T-2010-0024. This includes previously completed receiving water sampling used for effluent discharges proposed to the same surface water, and submitted with the NOI for discharges not enrolled under Order R6T-2010-0024.

If the data show concentrations in the discharge greater than the CTR water quality criteria of one or more of the 126 priority pollutants, a separate individual permit may be required to establish WQBELs. The Discharger is in compliance with the monitoring requirements of this Order if they have been fully responsive to a prior request for CTR information.

B. General Order Coverage

Upon review of the completed NOI, the Executive Officer shall determine the applicability of this General Order to the proposed Discharge. If the Discharger is deemed eligible for coverage, the Executive Officer shall issue a NOA. The issuance of the NOA shall notify the Discharger that the discharge is authorized under the terms and conditions of this General Order. The NOA may specify additional site-specific monitoring and reporting requirements. A new discharge (new source) for which coverage under this General Order is being sought shall not commence until after receiving the written NOA or until the Lahontan Water Board has issued an individual National Pollutant Discharge Elimination System (NPDES) permit for the discharge.

The Lahontan Water Board may require any Discharger requesting coverage under this General Order to apply for and obtain an individual NPDES permit in accordance with 40 C.F.R. section 122.28(b)(3)(i). Circumstances where an individual NPDES permit may be required include, but are not limited to, where the Discharger is not in compliance or is not expected to be in compliance with the terms and conditions of this General Order, or where a total maximum daily load (TMDL) has been completed for a water body or a segment of a water body approved after the effective date of this General Order. Dischargers that discharge to a water body with an approved TMDL, or a water body listed on the State's CWA section 303(d) list, will be evaluated on a case-by-case basis for coverage under this General Order or coverage under an individual permit [see section IV.D of the Fact Sheet (Attachment F) for more information].

In accordance with 40 C.F.R. section 122.28(b)(3)(iii), any Discharger may request to be excluded from coverage under a general NPDES permit by applying for an individual NPDES permit. This request must provide justification supporting the request for an individual NPDES permit and reasons why coverage under this General Order is not appropriate. Upon receipt of the request and application, the Executive Officer shall determine if an individual NPDES permit should be issued.

TENTATIVE

C. Termination of Coverage

1. When individual waste discharge requirements (WDRs) are issued to a Discharger otherwise subject to this Order, the applicability of this Order to the Discharger is automatically terminated on the effective date of the individual permit.

2. The Discharger shall notify the Lahontan Water Board within 30 days when cleanup activities are complete or the discharge will no longer occur. At that time, the Executive Officer will consider revocation of the NOA. Once the NOA is revoked, the discharge will no longer be covered by this Order and no discharge may occur prior to compliance with provisions of the Water Code.

D. Permit Expiration

This General Order will expire 5 years after its effective date, as specified on the cover page of this General Order. In accordance with 40 C.F.R. section 122.6, if the permit is not reissued by the expiration date, the conditions of this General Order will continue in force and effect until a new General Order is issued. Only those treatment systems authorized to discharge under the expiring General Order and who submit a NOI at least 180 days prior to the expiration date of this General Order will remain authorized to discharge under the administratively continued permit conditions.

III. FINDINGS

The Lahontan Water Board finds:

A. Legal Authorities. This General Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).This General Order is also issued pursuant to section 402 of the federal CWA and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges if treated groundwater from the investigation and remediation of identified and potential groundwater pollution to surface waters.

40 C.F.R. section 122.28 authorizes the U.S. EPA and approved states to issue general permits to regulate a point source category, if the sources:

1. Involve the same or substantially similar types of operations;
2. Discharge the same type of waste;
3. Require the same type of effluent limitations or operating conditions;
4. Require similar monitoring; and
5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, U.S. EPA granted the State of California, through the State Water Board and Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123.

B. Background and Rationale for Requirements. The Lahontan Water Board developed the requirements in this General Order based on readily available information for similar discharges and through monitoring and reporting programs for existing Dischargers. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this General Order, is hereby incorporated into and constitutes Findings for this General Order. Attachments A through E and G through H are also incorporated into this General Order.

TENTATIVE

C. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections VII, VIII, and X.A.2.s are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA.

D. Notification of Interested Parties. The Lahontan Water Board has notified the interested agencies and persons of its intent to prescribe WDRs for the discharges and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

E. Consideration of Public Comment. The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the discharges. Details of the Public Hearing are provided in the Fact Sheet.

IV. DISCHARGE PROHIBITIONS

A. Region-wide Prohibitions

In accordance with the Region-wide and Unit/Area-Specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan):

1. The discharge of waste that causes violation of any narrative or numeric water quality objective contained in the Basin Plan is prohibited.

2. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste that causes further degradation or pollution is prohibited.

3. The discharge of waste that could affect the quality of waters of the state that is not authorized by the State or Lahontan Water Board through waste discharge requirements, waiver of waste discharge requirements, NPDES permit, cease and desist order, certification of water quality compliance pursuant to Clean Water Act section 401, or other appropriate regulatory mechanism is prohibited.

4. The discharge of untreated sewage, garbage, or other solid wastes, into surface waters of the Region is prohibited. (For the purposes of this prohibition, “untreated sewage” is that which exceeds secondary treatment standards of the Federal Water Pollution Control Act, which are incorporated in the Basin Plan in Section 4.4 under “Surface Water Disposal of Sewage Effluent.”)

5. The discharge of pesticides to surface or ground waters is prohibited.

An exemption to Prohibitions IV.A.1 and 2 above may be granted on a case-by-case basis by the Water Board if the Discharger demonstrates that it meets the applicable criteria established in section 4.1 of the Basin Plan.

B. Lake Tahoe Hydrologic Unit Prohibitions

1. In accordance with the antidegradation policy of the Basin Plan, Section 3, Lake Tahoe is designated as an Outstanding National Resource Water (ONRW). The designation prohibits permanent or long-term reduction in water quality. Region-wide waste discharge prohibitions as described in section 4.1 of the Basin Plan also apply in the Lake Tahoe Hydrologic Unit, in addition to the following Lake Tahoe-specific prohibitions: The discharge attributable to human activities of any waste or deleterious material to surface waters of the Lake Tahoe Hydrologic Unit is prohibited.

TENTATIVE

An exemption to this prohibition may be granted whenever the Lahontan Water Board finds all of the following:

a. The discharge of waste will not, individually or collectively, directly or indirectly, adversely affect beneficial uses;

b. There is no reasonable alternative to the waste discharge; and

c. All applicable and practicable control and mitigation measures have been incorporated to minimize potential adverse impacts to water quality and beneficial uses.

2. The discharge attributable to human activities of any waste or deleterious material to land below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited. The Lahontan Water Board may grant an exemption to this prohibition, if specific provisions of the Basin Plan contained in Section 5.2 are met.

3. The discharge attributable to human activities of any waste or deleterious material to Stream Environment Zones (SEZs) in the Lake Tahoe Hydrologic Unit is prohibited. The Lahontan Water Board may grant an exemption to this prohibition, if specific provisions of the Basin Plan contained in Section 5.2 are met.

An exemption to Prohibitions IV.B.1, 2, and 3 above may be granted if the Discharger demonstrates that it meets the applicable criteria established in section 5.2 of the Basin Plan.

C. Mono Lake Hydrologic Unit Prohibitions

In accordance with the antidegradation policy of the Basin Plan, Section 3, Mono Lake is designated as an ONRW. The designation prohibits permanent or long-term reduction in water quality. Additional prohibitions and exemptions from the Basin Plan, Section 4.1, apply to other activities outside the coverage of this Order. At the Lahontan Water Board's discretion, exemptions to the prohibitions may be granted if Dischargers demonstrate that the discharge will not result in exceeding the water quality objectives or unreasonably affecting the water for its beneficial uses.

D. Other Discharge Prohibitions

1. There shall be no discharge, bypass, or diversion of polluted or partially treated water, sludge, grease, oils, purge water, development water, or pump test water from the collection, transport, or disposal facilities to adjacent land areas or surface waters.

2. The discharge shall not cause pollution as defined in section 13050 of the Water Code, or a threatened pollution.

3. Neither the treatment nor the discharge shall cause a nuisance as defined in section 13050 of the Water Code.

4. The discharge of treated wastewater except to the disposal point(s) authorized in the NOA is prohibited.

5. The discharge shall not cause erosion of sediments.

6. The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater may include rainfall, groundwater, surface water, cooling waters, and condensates.

TENTATIVE

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

During the effective period of this General Order, the Discharger is authorized to discharge pollutants from the discharge point(s) specified in the NOA within the limits and subject to the conditions set forth in this General Order. This General Order authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the NOA.

Effluent limitations have been established for all receiving waters in the Lahontan Region, including those areas designated as an ONRW, such as Lake Tahoe and Mono Lake, for the specific constituents of concern in Table 4.

A. Effluent Limitations

1. Final Effluent Limitations

a. Each Discharger shall maintain compliance with the following effluent limitations at each discharge point, with compliance measured at Monitoring Location EFF-001 (EFF-002, etc. if there is more than one discharge point) as specified in the NOA:

Table 4. Effluent Limitations[1,2]

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Nitrate (as N)	mg/L	---	10		
Perchlorate	µg/L	---	6.0		
Arsenic, Total Recoverable	µg/L	10	20	---	---
Chromium VI	µg/L	5.5	11	---	---
Benzene	µg/L	0.5	1.0	---	---
1,1-Dichloroethane	µg/L	0.5	5	---	---
1,2-Dichloroethane	µg/L	0.38	0.50	---	---
1,1-Dichloroethene	µg/L	0.5	6	---	---
cis-1,2-Dichloroethene	µg/L	0.5	6	---	---
trans-1,2-Dichloroethene	µg/L	0.5	10	---	---
Ethylbenzene	µg/L	0.5	29	---	---
Ethylene Dibromide	µg/L	0.02	0.02	---	---
Lead, Total Recoverable	µg/L	0.5	3.2	---	---
Methyl Tertiary Butyl Ether	µg/L	0.5	5	---	---
Naphthalene	µg/L	0.2	20	---	---
Tertiary Butyl Alcohol	µg/L	5.0	50	---	---
Tetrachloroethene	µg/L	0.5	1.6	---	---
Toluene	µg/L	0.5	42	---	---
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	--	50	---	---
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	--	50	---	---
1,1,1-Trichloroethane	µg/L	0.5	200	---	---
1,1,2-Trichloroethane	µg/L	0.5	1.2	---	---
Trichloroethene	µg/L	0.5	5	---	---
Vinyl Chloride	µg/L	0.5	0.5	---	---

TENTATIVE

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Xylenes, Total	µg/L	0.5	17	---	---

Table Notes:
1. If the influent concentrations exceed water quality objectives in the receiving water, and the Discharger cannot meet the effluent limitations in Table 4 after treatment, the discharge is not eligible for coverage under this General Permit.
2. More stringent effluent limitations may be established based on specific water quality objectives listed in the Basin Plan for specific receiving waters.

b. Acute Toxicity. The effluent shall not exhibit acute toxicity, as defined:

i. Less than 90 percent survival of *Pimephales promelas* in undiluted effluent in ≥50 percent of the samples in a calendar year; or

ii. Less than 70 percent survival of *Pimephales promelas* in undiluted effluent in ≥10 percent of the samples in the calendar year.

VI. OTHER DISCHARGE SPECIFICATIONS – NOT APPLICABLE

VII. LAND DISCHARGE SPECIFICATIONS – NOT APPLICABLE

This General Order does not authorize discharges to land.

VIII. RECYCLING SPECIFICATIONS – NOT APPLICABLE

This General Order does not authorize use or application of recycled water.

IX. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are part of this General Order. However, a receiving water condition not in conformance with the limitation is not necessarily a violation of this General Order. Compliance with receiving water limitations shall be measured at monitoring locations described in the NOA. The Lahontan Water Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred.

1. The Discharge shall not cause a violation of any applicable water quality objective for receiving water adopted by the Lahontan Water Board or the State Water Board as required by the federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal Clean Water Act or amendments thereto, the Lahontan Water Board may revise and modify this Order in accordance with such more stringent standards.

2. **Ammonia.** The neutral, unionized ammonia species (NH_3) is highly toxic to freshwater fish. The fraction of toxic NH_3 to total ammonia species ($NH_4^+ + NH_3$) is a function of temperature and pH. Basin Plan Tables 3-1 to 3-5 were derived from U.S. EPA ammonia criteria for freshwater. Ammonia concentrations shall not exceed the values listed for the corresponding conditions in these tables. For temperature and pH values not explicitly in the tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas developed by the U.S. EPA.

3. **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/100 mL, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40 MPN/100 mL. The U.S. EPA recommends that the log mean

TENTATIVE

should ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. (Reference: Ambient Water Quality Criteria for Bacteria - 1986, EPA 440/5-84-002, page 2.) However, a log mean concentration exceeding 20 MPN/100 mL for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.

4. **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.

5. **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 on drinking water standards specified by the more restrictive of the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, or 40 CFR Part 141.

6. **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. Median values shall be based on daily measurements taken within a 6-month period.

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

8. **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 and COLD with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified in Table 3-6 in the Basin Plan.

9. **Floating Materials.** Waters shall not contain floating materials, 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 discernible at the 10 percent significance level.

10. **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.

11. **Nondegradation of Aquatic Communities and Populations.** All wetlands shall be free of substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or that 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.

12. **pH.** Changes in normal ambient pH levels shall not exceed 0.5 pH units. The Discharger shall not depress the pH below 6.5 nor raised the pH above 8.5. For discharges to Lake Tahoe, the pH shall not be depressed below 6.5 nor raised above 7.9

    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 and that natural pH levels can vary throughout the water column and throughout the day as photosynthesis and other natural biological and natural chemical reactions occur. Compliance with the pH objective for these waters will be determined on a case-by-case basis.

TENTATIVE

13. **Radioactivity.** Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of the limits specified by the more restrictive of the CCR, Title 22, Division 4, Chapter 15, or 40 C.F.R. Part 141.

14. **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.

15. **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 ml/L.

16. **Suspended Material.** Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affect 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.

17. **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.

18. **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 5 degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered.

    Temperature objectives for COLD interstate water and WARM interstate waters are as specified in the *Water Quality Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* including any revisions. This plan is summarized in Chapter 6 (Plans and Policies) of the Basin Plan and is included as Attachment B of the Basin Plan.

19. **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 *Standard Methods for the Examination of Water and Wastewater* (American Public Health Association, et al. 2012 or subsequent editions).

20. **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.

TENTATIVE

B. Surface Water Limitations – Lake Tahoe

Additional water quality objectives applicable to the waters of the Lake Tahoe Hydrologic Unit are included in the Basin Plan, Section 5.1. In addition, Tables 5.1-3 and 5.1-4 contain additional water quality objectives for certain water bodies within the Lake Tahoe Hydrologic Unit.

X. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.

2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. Surface waters as used in this Order include, but are not limited to, wetlands and live streams, either perennial or ephemeral, which flow in natural or artificial watercourses, and natural lakes and artificial impoundments of waters within the State of California.

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.

c. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.

d. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.

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

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

g. The Water Code and the CWA provide for civil liability and criminal penalties for violations of the permit limits including imposition of civil liability or referral to the Attorney General.

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

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

j. Pursuant to Water Code section 13263, subdivision (g), no discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.

k. In the event the Discharger is unable to comply with any of the conditions of this Order due to:

i. breakdown or serious malfunction of water treatment equipment;

TENTATIVE

ii. accidents caused by human error or negligence;

iii. overflows from the system; and

iv. other causes such as acts of nature.

The Discharger shall notify the Lahontan Water Board Executive Officer as soon as the Discharger or the Discharger's agents have knowledge of any discharge in violation of this permit, or any emergency discharge or other discharge of surface water or surrounding wetlands, in accordance with the notification requirements in the Standard Provisions for NPDES Permits, included in this Order as Attachment D.

l. Pursuant to Water Code section 13267, subdivision (b), the Discharger shall notify the Lahontan Water Board of any substantial change in the volume or character of pollutants introduced into the treatment system from the conditions existing at the time of adoption of this NPDES permit.

m. Adequate notice shall include information on the quality and quantity of effluent discharged into the receiving waters for the treatment system, as well as any anticipated impact of the change on the quantity or quality of the effluent to be discharged from the treatment system. A substantial change in volume is considered an increase in excess of ten percent of the mean daily flow rate. The Discharger shall forward a copy of such notice directly to the U.S. EPA Regional Administrator.

n. The Discharger shall file a report of waste discharge with the Lahontan Water Board at least 180 days before making any material change or proposed change in the character, location, or volume of the discharge.

o. Pursuant to Water Code section 13260, subdivision (c), any change in the ownership and/or operation of property subject to the NPDES permit shall be reported to the Lahontan Water Board. Notification of applicable NPDES Permit requirements shall be furnished in writing to the new owners and/or operators, and a copy of such notification shall be sent to the Lahontan Water Board.

p. If a Discharger becomes aware that any information submitted to the Lahontan Water Board is incorrect, the Discharger shall immediately notify the Lahontan Water Board, in writing, and correct that information.

q. If the Discharger becomes aware that their NPDES permit is no longer needed (because the discharge will cease) the Discharger shall notify the Lahontan Water Board in writing and request that the Order be rescinded.

r. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this treatment system, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

s. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, average monthly effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Lahontan Water Board by telephone (530) 542-5400 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Lahontan Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current

TENTATIVE

noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

a. **Standard Revisions**. If applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Lahontan Water Board may reopen this General Order and make modifications in accordance with such revised standards.

b. **Reasonable Potential**. This General Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.

c. **303(d)-Listed Pollutants**. If a total maximum daily load (TMDL) is adopted and is applicable to a discharge(s) authorized by this General Order, this General Order may be reopened to incorporate the requirements of the TMDL. TMDLs for arsenic and nitrate are currently under development for various watersheds within the Lahontan Region. The Dischargers shall refer to Chapter 4 of the Basin Plan to determine whether there are any applicable TMDLs for the receiving water. In addition, the Lahontan Water Board may include additional provisions necessary for Dischargers to comply with applicable TMDLs and/or consider revising this General Order to make it consistent with any Lahontan Water Board decisions arising from various petitions for re-hearing and litigation concerning the SIP, 303(d) list, and TMDL program.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Toxicity Identification Evaluation or Toxicity Reduction Evaluations.**

If acute or chronic toxicity is detected upon startup of the treatment facility, as described in Section V.B of the MRP (Attachment E), the Discharger shall submit to the Lahontan Water Board an initial investigation Toxicity Reduction Evaluation (TRE) work plan within 45 days of receipt of the laboratory results showing toxicity.

Dischargers that were enrolled under Order R6T-2004-0025 or performed testing or developed a TRE work plan under Order R6T-2010-0024 are not required to perform acute or chronic WET testing or submit a TRE work plan. This plan shall generally describe the steps the Discharger intends to follow if acute or chronic toxicity is detected during accelerated acute WET testing or chronic WET testing as specified in the MRP (Attachment E). The plan should include at least a description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency and, if a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who would conduct the TIE.

If acute or chronic toxicity is detected during accelerated acute WET testing or chronic WET testing as specified in the MRP (Attachment E), the Discharger shall, in accordance with its initial investigation TRE work plan, initiate a TRE within 15 days of receipt of the final acute or chronic toxicity test results in order to reduce the cause(s) of toxicity. At a minimum, the Discharger shall use the U.S. EPA manual

TENTATIVE

EPA/8338-99/002 as guidance. The Discharger shall expeditiously develop and implement a more detailed TRE work plan that includes:

i. Further actions to investigate and identify the cause(s) of toxicity;

ii. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

iii. A schedule for these actions.

The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the U.S. EPA acute and chronic manuals EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.

Results of a TRE/TIE shall be submitted to the Lahontan Water Board within 2 months of study completion when such a study is required based on the conditions stated above.

The Lahontan Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Lahontan Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Construction, Operation and Maintenance Specifications – Not Applicable

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

6. Other Special Provisions

a. Solids Disposal

i. Collected screenings and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23 of the California Code of Regulations.

Any proposed change in solids use or disposal practice shall be reported to the Executive Officer and U.S. EPA Regional Administrator at least 90 days in advance of the change.

ii. Individuals and companies that apply for coverage and that are responsible for site operations retain primary responsibility for compliance with these requirements, including day-to-day operations and monitoring.

iii. The Discharger shall immediately stop any discharge authorized by these requirements in the event there is a violation, or threatened violation, of this Order or if the Executive Officer so orders. The Discharger shall notify the Lahontan Water Board as soon as reasonably possible by telephone, with a written confirmation within 1 week, when a violation of this Order is known to exist. The discharge may not be resumed until authorized in writing by the Executive Officer.

7. Compliance Schedules – Not Applicable

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

TENTATIVE

XI. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section V of this General 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 of this General 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 average monthly effluent limitation or maximum daily effluent limitation 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 Section XI.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.

D. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by Section XI.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.

TENTATIVE

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 measured 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 measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative Pollutants: 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: substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV): 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): sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit: the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA): a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (*Technical Support Document For Water Quality-based Toxics Control*, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays: indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor,

TENTATIVE

Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration: the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries: waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters: all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median: the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL): the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R., Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML): the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Not Detected (ND): those sample results less than the laboratory's MDL.

Notice of Applicability (NOA): means a written notification issued by the NPDES permitting authority authorizing discharge under the terms and conditions of a general order.

Notice of Intent (NOI): means a written application submitted to the NPDES permitting authority seeking authorization to discharge under a general order.

Persistent Pollutants: substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP): waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste

TENTATIVE

management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Lahontan Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention: any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Lahontan Water Board.

Reporting Level (RL): the ML (and its associated analytical method) used for reporting and compliance determination. The MLs included in this General Order correspond to approved analytical methods for reporting a sample result that are selected by the Lahontan Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System: the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water: any water designated as municipal or domestic supply (MUN) in a Lahontan Water Board Basin Plan.

Standard Deviation (σ): a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE): a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

TENTATIVE

ATTACHMENT B – NOTICE OF INTENT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAKE TAHOE REGION

NOTICE OF INTENT (NOI)

TO COMPLY WITH THE TERMS OF
ORDER R6T-2016-00XX
GENERAL NPDES NO. CAG916001

WASTE DISCHARGE REQUIREMENTS
FOR
SURFACE WATER DISPOSAL OF TREATED GROUNDWATER

Note: Consult Attachment C for additional information related to preparattion of the NOI.

I. PROPERTY OWNER

Name:		
Mailing Address:		
City:	State:	Zip:
Contact Person:		
Phone:	Fax:	E-mail:
Signature:		Date:
Note: If additional owners/operators are involved, provide the information in a supplemental letter.		

II. CONSULTANT / OPERATOR (*if different from owner*)

Name:		
Mailing Address:		
City:	State:	Zip:
Contact Person:		
Phone:	Fax:	E-mail:
Signature:		Date:
Consultant _____ Operator_____ Consultant/Operator _____		WDID No.
UST No. *(if applicable)*		
Note: If additional owners/operators are involved, provide the information in a supplemental letter.		

TENTATIVE

III. BILLING ADDRESS

Name:		
Mailing Address:		
City:	State:	Zip:
Contact Person:		
Phone:	Fax:	E-mail:

IV. FACILITY INFORMATION

Name:		
Location Address:		
City:	State:	Zip:
County:		
Mailing Address:		
City:	State:	Zip:
Contact Person:		
Phone:	Fax:	E-mail:
Active Orders or Permits adopted by the Lahontan Water Board, including effective dates:		

V. DISCHARGER INFORMATION

Identify type of discharge: _____ Treated Groundwater _____Other (specify)		
Start Date:	Stop Date:	Discharge Rate (gallons per day [GPD]):
Is the discharge short term, intermittent, or seasonal?_____ Yes _____ No Project the number of operating days on a monthly basis throughout the calendar year:		
Does the facility operate year-round?_____ Yes _____ No Project the number of operating days on a monthly basis throughout the calendar year:		
Provide a time schedule for operating:		

TENTATIVE

VI. TREATMENT SYSTEM(S)

Please identify the treatment unit type, and the number of on-site operating units:	
_____ Air Stripping _____ Number of Units	_____ Vapor Extraction _____ Number of Units
_____ Air Sparging _____ Number of Units	_____ Bioreactor _____ Number of Units
_____ Granular Activated Carbon _____ Number of Units _____ Estimated Breakthrough Time	
_____ Chemical Oxidation (Describe): _____ Number of Units	
_____ Other (Describe below in space provided) _____ Number of Units	
_____ None (Describe why a treatment system is not necessary):	
Design Flows:	Esimated Flows:
Does the maintenance of the treatment unit require backflushing and create additional discharges? ____Yes _____ No If yes, please describe the discharge and asssoicated procedures:	
Describe how the treatment system will be protected from floods:	
Describe pollutant removal mechanisms:	
Describe any chemical additives used for treatment:	
☐ Attach a flow diagram of the proposed collection and treatment system, and identify proposed influent and effluent monitoring locations.	
☐ Attach a residual disposal plan for solids, if solids are generated through the treatment process.	
☐ Attach an Operation's Plan	
☐ Attach a Spill Plan	

TENTATIVE

VII. DISCHARGE LOCATION

Street (Including address, if any):
City/County:
Nearest Cross Street(s):
Township/Range/Section: T_____, R_____, Section _____, MDB&M
☐ Attach a map at least 1:24000 (1" = 2000') showing the location of the discharge (e.g., USGS 7.5" topographic map). The map should show the facility location, discharge point(s), and surface waters. Wells and residences within 1,500 feet of the discharge site shall also be identified.

VIII. RECEIVING WATER CHARACTERIZATION

Closest Receiving Water Name:
Hydrologic Unit (Refer to Attachment C, Item F):
Is the Hydrologic Unit defined as an Outstanding National Resource Water? If yes, check the appropriate box and provide the requested information: ☐ Lake Tahoe ☐ Mono Lake If the receiving water is in the Lake Tahoe Hydrologic Unit, pursuant to Basin Plan section 5.2, please explain: **a.** How the discharge will not, individually or collectively, directly or indirectly, adversely affect beneficial uses. **b.** Why there is no reasonable alternative the waste discharger. **c.** How all applicable and practicable control and mitigation measures have been incoroporated to minimize potetnital adverse impacts to water quality and beneficial uses. If the receiving water is in the Mono Lake Hydrologic Unit, please explain how the discharge will not result in exceeding the water quality objectives or unreasonably affecting the water for its beneficial uses.
Receiving Water is tributary to (name major downstream water body):
Quality of receiving water (include most recent analyses and include required California Toxics Rule data):
Specific Water Quality Objectives for the Receiving Water listed in the Basin Plan:
Estimated flow of stream or estimated volume of lake or pond:
Provide descriptions of the direction and magnitude of flows:

TENTATIVE

Is the receiving water listed as impaired pursuant to Section 303(d) of the Clean Water Act? (Refer to Attachment C, Item F): ☐Yes ☐No If yes, for what pollutant(s)?
☐ Attach calculations on dilution conditions expected in the receiving water.

TENTATIVE

IX. WASTEWATER CHARACTERIZATION

Existing Dischargers: Identify constituents of concern and estimated concentrations in the treated effluent.

Constituent / Units	Expected in the Discharge?		Concentration	
	Yes	No	Minimum	Maximum
Nitrate (as N) (mg/L)				
Perchlorate (µg/L)				
Arsenic, Total Recoverable (µg/L)				
Chromium VI (µg/L)				
Lead, Total Recoverable (µg/L)				
Benzene (µg/L)				
1,1-Dichloroethane (µg/L)				
1,2-Dichloroethane (µg/L)				
1,1-Dichloroethene (µg/L)				
cis-1,2-Dichloroethene (µg/L)				
trans-1,2-Dichloroethene (µg/L)				
Ethylbenzene (µg/L)				
Ethylene Dibromide (µg/L)				
Methyl Tertiary Butyl Ether (µg/L)				
Naphthalene (µg/L)				
Tertiary Butyl Alcohol (µg/L)				
Tetrachloroethene (µg/L)				
Toluene (µg/L)				
Total Petroleum Hydrocarbons (Gasoline Range)(C6-C10) (µg/L)				
Total Petroleum Hydrocarbons (Diesel Range)(C10-C28) (µg/L)				
1,1,1-Trichloroethane (µg/L)				
1,1,2-Trichloroethane (µg/L)				
Trichloroethene (µg/L)				
Vinyl Chloride (µg/L)				
Xylenes, Total (µg/L)				

TENTATIVE

***New Dischargers**:* For each discharge point to surface waters, attach the results of effluent and receiving water monitoring for the priority pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38. Previously conducted receiving water sampling may be used for the same surface waters, if available, and included in the NOI. The Discharger is not required to sample and analyze for asbestos. Effluent hardness shall be monitored concurrently with the priority pollutant sample. Analytical methods must achieve the lowest minimum level (ML) specified in Attachment 4 of the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP); and in accordance with Section 2.4 of the SIP, the Discharger shall report the ML and Method Detection Limit (MDL) for each sample result. See Attachment G for lists of priority pollutants. Attachment H lists the dioxin and furan sampling requirements. Acute and Chronic Toxicity Testing is also required for new dischargers. Alternative analytical methods that provide equivalent reporting levels may be proposed.

X. ABILITY TO COMPLY

Do background concentrations of the groundwater exceed limitations contained in Attachment G?
_____ Yes _____ No

a. If yes, list pollutants:

b. If yes, explain how the treatment unit will reduce the influent concentrations to below the water quality objectives in the receiving water.

Does the discharge have acute or chronic toxicity, chemical or organic constituents, bacteria, pesticdes, oil and grease, radioactivity, salilnity or temperature that may violate receiving water limitations contained in Section IX of the Limitations and Discharge Requirements of this Order or adversely impact beneficial uses of the receiving water?
_____ Yes _____ No

Note: If responses to either question above is "Yes", contact a Professional Engeineer or Geologist. An individual permit may be required for the discharge rather than authorization under this Order.

XI. PROFESSIONAL ENGINEER OR REGISTERED GEOLOGIST

If a California licensed Professional Engineer or Professional Geologist has helped evaluate the proposed discharge for compliance with this Order, please identify:			
Name:			
Mailing Address:		Email Address:	
City:	State:	Zip:	Phone:
Signature:		License No:	Date:

TENTATIVE

XII. SITE WORK PLAN

Is the Site Work Plan attached? _____ Yes _____ No
If no, explain why: Refer to Attachment C for more details on the Site Work Plan requirements.

XIII. FEE REQUIREMENTS

☐ Provide the applicable fees. Information concerning the applicable fees can be found at www.waterboards.ca.gov/resources/fees/. Checks must be made payable to the Lahontan Resources Control Board.

XIV. CERTIFICATION AND SIGNATURE

"I hereby certify under penalty of perjury that the information provided in this application and in any attachments is true and accurate to the best of my knowledge. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. By signing this NOI, I agree to comply with the provisions of the General Order. The Lahontan Water Board will be immediately notified of any violation of the General Order."

_____ _____

Printed Name of Person Signing Date

_____

Signature

_____

Title

TENTATIVE

ATTACHMENT C – INFORMATION TO SUPPORT THE NOI

This guidance document outlines the minimum information required by the California Regional Water Quality Board, Lahontan Region (Lahontan Water Board), prior to considering issuance of a Notice of Applicability (NOA) for general waste discharge requirements for the discharge of treated groundwater to surface water. In addition to the information outlined in this document, a completed Notice of Intent (NOI) form (Attachment B) and filling fees must also be submitted.

Discharges to surface water regulated by the Order include discharges to all bodies defined as surface waters in title 40 of the Code of Federal Regulations (40 C.F.R. section 122.2).

A. Background Information

A basic description of the proposed discharge must be provided to allow Lahontan Water Board staff to determine if the Order is applicable to the proposed discharge. This information generally includes:

1. Identification of the source of pollutants (source areas), the potential seasonal variations in the concentrations of pollutants and- flow rates, and a general description of the proposed treatment and disposal systems;
2. Identification of the surface drainages controls, drainage courses and surface water bodies, including rivers, streams, lakes and ponds within 1 mile of the treatment facility;
3. Property boundaries;
4. Buildings, dwellings, and other significant structures;
5. Map(s) of the site that depicts the locations of all surface features identified above, including the process and source areas, the points of discharge and the extraction, treatment and disposal facilities; and
6. Documentation of compliance with all necessary local and state permits.

B. Chemical and Physical Wastewater Characteristics

A chemical and physical evaluation of the wastewater is needed to allow staff to assess the need for discharge standards and monitoring, and to evaluate the potential for impacts on water quality. The specifics of the characterization vary with the type of wastes being discharged. The following are minimum requirements for groundwater cleanup discharges:

1. General Analyses

A minimum of one of each of the following analyses of the wastewater:

a. Chlorinated volatile hydrocarbons (EPA Method 8260B or equivalent);

b. Aromatic volatile hydrocarbons (EPA Method 8260B of equivalent);

c. Total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges (EPA Method 8015 modified or equivalent). Additional alternative TPH analyses may be required if the suspected pollutants contain hydrocarbon fractions outside the range of these tests.

d. General or standard minerals analyses, including but not limited to, total dissolved solids (TDS), chloride, sulfate, nitrate, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, electrical conductivity (EC), pH and temperature; and

e. Other analyses associated with specific types of waste streams [e.g., dissolved oxygen (DO) and suspended solids (SS)].

TENTATIVE

2. California Toxics Rule (CTR) Requirements

As part of a complete NOI submittal, include data sufficient to determine if any water quality-based effluent limitation (WQBEL) is required in a discharge permit pursuant to the CTR. The CTR data are needed to assess 126 priority pollutants.

a. Groundwater samples must comply with the general monitoring provisions of the Monitoring and Reporting Program (Attachment E) and the Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping. A representative grab or composite sample of the upstream receiving water shall also be obtained if applicable. These samples shall be analyzed for all constituents listed in Attachment G.

b. Priority Pollutants to be Monitored (Attachment G). Attachment G identifies the constituents to be monitored, the controlling water quality criteria, and suggested analytical procedures. It is organized into groupings (Inorganics, Volatile Organics, Semi-Volatile Organics, and Pesticides/Polychlorinated Biphenyls (PCBs). Maximum quantitation levels based on the Minimum Levels (ML) listed in Appendix 4 of the *Policy for implementation of Toxics Standards for Inland Surface Waters, Enclosed, Bays, and Estuaries of California* (State Implementation Plan or SIP) are also listed in Attachment G of this Order. In cases where the controlling water quality criteria concentration are below the detection limits of all approved analytical methods, the most sensitive analytical method must be utilized that meets the lowest of the MLs. All analyses must be performed by a California certified environmental analytical laboratory. A full priority pollutant scan is not required for Dischargers who were previously enrolled under Order R6T-2010-0024.

c. Dioxin and Furan Sampling (Attachment H). Section 3 of the SIP has specific requirements for collecting samples for analysis of dioxin and furan congeners. Briefly, for dischargers classified as minor (as would be typical for this Order based on U.S. EPA specific ratings criteria), one sample from upstream in the receiving water and one sample from the treatment system discharge must be collected and analyzed. Dioxin and furan sampling is not required for Dischargers previously enrolled under Orders R6T-2004-0025 and R6T-2010-0024.

C. Wastewater Treatment System

A description of the treatment system is needed to assure that all waste streams are accounted for, and to aid in design of the monitoring program. Information that shall be provided include:

1. A detailed narrative description and schematic presentation of the proposed treatment system, including all processes.

2. Descriptions of the nature and concentration of any chemical additive used for treatment must be included. If the proposed treatment system uses activated carbon, submit an estimate of the breakthrough time for each carbon treatment unit. If the operations and maintenance included back flushing, or other required treatment for maintenance, then a full description of any discharges associated with these procedures must be included.

3. An estimate of the average, maximum and any variation in flows, as well as the design flows (hydraulic and treatment) for the treatment system. All necessary sizing calculations to accommodate the treatment volume must be included.

TENTATIVE

4. An operation plan describing general operations, maintenance procedures and process controls. Information on the provisions for stand-by power must be provided.
5. A description of the proposed performance-monitoring system utilized to determine that the treatment and disposal system is in compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements.
6. A spill plan including the preventive and contingency measures for controlling accidental discharges and for minimizing the effect of such an event.
7. Information required to assess protection of the treatment facility from floods and frost.
8. A narrative and schematic description of the proposed extraction system. A discussion of the number, location and pumping rates of the extraction wells.

D. Receiving Water

1. Provide information on the water quality of the receiving water. Analytical results should be provided for all constituents found in the waste stream as listed under B.1 and B.2 above. Additional analysis may be requested by Lahontan Water Board staff. Previously conducted receiving water sampling may be used for discharges to the same surface waters.
2. Descriptions of the direction and magnitude of flows. Sources and seasonal "flow variations for surface water and irrigation supply must be provided.
3. Conduct an analysis of the impact of the wastewater discharge on the receiving water quality. Calculations should be performed for the range of dilution conditions expected to be found in the receiving waters. All assumptions should be stated and a sample calculation should be included, demonstrating requirements with receiving water quality objectives, including those specific water quality objectives listed for the receiving water in the Basin Plan.

E. Site Work Plan

1. Provide a description of the proposed cleanup plan, including schedules, volume of proposed contamination, and treatment methods.
2. The Site Work Plan must accompany the NOI.

F. Other Reference Material

1. Basin Plan References for Hydrologic Units:, Chapter 2, Table 2-1: http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/docs/ch2_beneficialuses.pdf
2. Basin Plan References for water quality objectives for certain water bodies: Chapter 3: http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/docs/ch3_wqobjectives.pdf
3. State Water Board TMDL Web Site: http://www.swrcb.ca.gov/water_issues/programs/tmdl/.

TENTATIVE

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this General Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

2. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this General Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this General Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. 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) which are installed or used by the Discharger to achieve compliance with the conditions of this General Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this General Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This General Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this General Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Lahontan Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this General Order (40 C.F.R. § 122.41(i)(1));

TENTATIVE

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this General Order (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this General Order (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring General Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions
   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Lahontan Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
   c. The Discharger submitted notice to the Lahontan Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Lahontan Water Board may approve an anticipated bypass, after considering its adverse effects, if the Lahontan Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)
5. Notice
   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

TENTATIVE

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
   b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This General Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this General Order after the expiration date of this General Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This General Order is not transferable to any person except after notice to the Lahontan Water Board. The Lahontan Water Board may require modification or revocation and reissuance of the General Order to change the name of the Discharger and incorporate such

TENTATIVE

other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 or, in the case of sludge use or disposal, approved under 40 C.F.R. part 136 unless otherwise specified in 40 C.F.R. part 503 unless other test procedures have been specified in this General Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this General Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this General Order, and records of all data used to complete the application for this General Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Lahontan Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

A. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

B. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

C. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

D. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

E. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

F. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

G. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

H. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

I. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Lahontan Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Lahontan Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this General Order or to determine compliance with this General Order. Upon request, the Discharger shall also furnish to the Lahontan Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this General Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

TENTATIVE

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Lahontan Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed as follows:

   a. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

   b. For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

   c. For a municipality, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this General Order and other information requested by the Lahontan Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

   c. The written authorization is submitted to the Lahontan Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Lahontan Water Board and

TENTATIVE

State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this General Order. (40 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Lahontan Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this General Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Lahontan Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this General Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this General Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

TENTATIVE

a. Any unanticipated bypass that exceeds any effluent limitation in this General Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

b. Any upset that exceeds any effluent limitation in this General Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Lahontan Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Lahontan Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this General Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Lahontan Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this General Order's requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Lahontan Water Board**,** State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

The Lahontan Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

TENTATIVE

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Lahontan Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this General Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Lahontan Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

J. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this General Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Lahontan Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

TENTATIVE

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Contents

I. General Monitoring Provisions E-2
II. Monitoring Locations E-2
III. Influent Monitoring Requirements E-3
A. Influent Monitoring E-3
IV. Effluent Monitoring Requirements E-4
A. Effluent Monitoring E-4
V. Whole Effluent Toxicity Testing Requirements E-6
A. Acute WET Testing E-6
B. Chronic WET Testing E-6
VI. Land Discharge Monitoring Requirements – Not Applicable E-7
VII. Recycling Monitoring Requirements – Not Applicable E-7
VIII. Receiving Water Monitoring Requirements E-7
A. Monitoring Location RSW-001 and RSW-002 ..... E-7
IX. Other Monitoring Requirements E-9
A. Treatment Facility Startup Monitoring E-9
X. Reporting Requirements E-10
A. General Monitoring and Reporting Requirements E-10
B. Self-Monitoring Reports (SMRs) E-10
C. Discharge Monitoring Reports (DMRs) – Not Applicable E-12
D. Other Reports E-12

Tables

Table E-1. Monitoring Station Locations E-2
Table E-2. Influent Monitoring E-3
Table E-3. Effluent Monitoring E-4
Table E-4. Upstream and Downstream Receiving Water Monitoring Requirements E-8
Table E-5. Monitoring Periods and Reporting Schedule E-10

TENTATIVE

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Lahontan Water Board to require technical and monitoring reports. This Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Lahontan Water Board.

B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes.

C. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health (DPH), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including non-compliance, shall be reported at intervals and in a manner specified in this MRP.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this General Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	INF-001	Shall be located after the last connection and before the wastes enter the treatment system.
001	EFF-001	Shall be located immediately downstream of the last connection through which wastes can be admitted into the outfall.
---	RSW-001	Upstream from the discharge point at a location specified in the NOA.
---	RSW-002	Downstream from the discharge point at a location specified in the NOA.

TENTATIVE

III. INFLUENT MONITORING REQUIREMENTS

A. Influent Monitoring

1. The Discharger shall monitor the influent to the treatment system at Monitoring Location INF-001 (INF-002, etc. if there is more than one influent) when discharges from the treatment system are occurring. Samples shall be collected at approximately the same time as effluent and receiving water samples. Specific constituents to be monitored will be identified in the NOA.

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrate (as N)	mg/L	Grab[1]	[2,3]	[4]
Perchlorate	µg/L	Grab[1]	[2,3]	[4]
Arsenic, Total Recoverable	µg/L	Grab[1]	[2,3]	[4]
Chromium VI	µg/L	Grab[1]	[2,3]	[4]
Benzene	µg/L	Grab[1]	[2,3]	[4]
1,1-Dichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,2-Dichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,1-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
cis-1,2-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
trans-1,2-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
Ethylbenzene	µg/L	Grab[1]	[2,3]	[4]
Ethylene Dibromide	µg/L	Grab[1]	[2,3]	[4]
Lead, Total Recoverable	µg/L	Grab[1]	[2,3]	[4]
Methyl Tertiary Butyl Ether	µg/L	Grab[1]	[2,3]	[4]
Naphthalene	µg/L	Grab[1]	[2,3]	[4]
Tertiary Butyl Alcohol	µg/L	Grab[1]	[2,3]	[4]
Tetrachloroethene	µg/L	Grab[1]	[2,3]	[4]
Toluene	µg/L	Grab[1]	[2,3]	[4]
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	Grab[1]	[2,3]	[4]
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	Grab[1]	[2,3]	[4]
1,1,1-Trichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,1,2-Trichloroethane	µg/L	Grab[1]	[2,3]	[4]
Trichloroethene	µg/L	Grab[1]	[2,3]	[4]
Vinyl Chloride	µg/L	Grab[1]	[2,3]	[4]
Xylenes, Total	µg/L	Grab[1]	[2,3]	[4]

TENTATIVE

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

Table Notes:

1. Time of collection for grab samples must be discretely recorded.
2. Specific constituents to be monitored shall be identified in the NOA. The minimum sampling frequency for constituents identified in the NOA shall be as follows:
   a. During the first 2 months of treatment system operation, influent samples shall be collected on the 1st, 4th, 14th, 28th, and 56th days of operation.
   b. During the third to sixth month, influent sampling shall be conducted every 30 days.
   c. Thereafter, influent sampling shall be conducted every 90 days.

   Sampling shall be conducted at a minimum according to the above schedule, and frequently enough to ensure that the effluent is in compliance with the discharge specifications of the permit. Site specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.
3. Under certain adverse conditions, more frequent sampling is required if it is appropriate. An adverse condition is defined as any problem that does or could affect treatment facility compliance or efficiency. If at any time the system is shut down for a continuous time period greater than 60 days, the influent monitoring schedule described in Footnote 2 above must be reinitiated unless otherwise specifically approved by the Executive Officer.
4. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutant constituents, the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). If more than one analytical test method is listed for a given pollutant, the Discharger must select the lowest minimum levels specified in Appendix 4 of the SIP.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Effluent Monitoring

1. The Discharger shall monitor the effluent at Monitoring Location EFF-001 (EFF-002, etc. if there is more than one discharge point from the treatment system) as follows. Specific constituents to be monitored will be identified in the NOA.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow, Average Daily	GPD	Estimate	1/Day	---
Volume of Treated Wastewater, Total	Gallons	Estimate	1/Day	---
Nitrate (as N)	mg/L	Grab[1]	[2, 3]	[4]
Perchlorate	µg/L	Grab[1]	[2, 3]	[4]
Arsenic, Total Recoverable	µg/L	Grab[1]	[2, 3]	[4]
Chromium VI	µg/L	Grab[1]	[2, 3]	[4]
Benzene	µg/L	Grab[1]	[2, 3]	[4]
1,1-Dichloroethane	µg/L	Grab[1]	[2, 3]	[4]
1,2-Dichloroethane	µg/L	Grab[1]	[2, 3]	[4]
1,1-Dichloroethene	µg/L	Grab[1]	[2, 3]	[4]
cis-1,2-Dichloroethene	µg/L	Grab[1]	[2, 3]	[4]

TENTATIVE

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
trans-1,2-Dichloroethene	µg/L	Grab[1]	[2, 3]	[4]
Ethylbenzene	µg/L	Grab[1]	[2, 3]	[4]
Ethylene Dibromide	µg/L	Grab[1]	[2, 3]	[4]
Lead, Total Recoverable	µg/L	Grab[1]	[2, 3]	[4]
Methyl Tertiary Butyl Ether	µg/L	Grab[1]	[2, 3]	[4]
Naphthalene	µg/L	Grab[1]	[2, 3]	[4]
Tertiary Butyl Alcohol	µg/L	Grab[1]	[2, 3]	[4]
Tetrachloroethene	µg/L	Grab[1]	[2, 3]	[4]
Toluene	µg/L	Grab[1]	[2, 3]	[4]
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	Grab[1]	[2, 3]	[4]
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	Grab[1]	[2, 3]	[4]
1,1,1-Trichloroethane	µg/L	Grab[1]	[2, 3]	[4]
1,1,2-Trichloroethane	µg/L	Grab[1]	[2, 3]	[4]
Trichloroethene	µg/L	Grab[1]	[2, 3]	[4]
Vinyl Chloride	µg/L	Grab[1]	[2, 3]	[4]
Xylenes, Total	µg/L	Grab[1]	[2, 3]	[4]

Table Notes:

1. Time of collection for grab samples must be discretely recorded.
2. Specific constituents to be monitored shall be identified in the NOA. The minimum sampling frequency for constituents identified in the NOA shall be as follows:
   a. During the first 2 months of treatment unit operation, effluent samples shall be collected on the 1st, 4th, 14th, 28th, and 56th days of operation.
   b. During the third to sixth month, effluent sampling shall be conducted every 30 days.
   c. Thereafter, effluent sampling shall be conducted every 90 days.

   Sampling shall be conducted at a minimum according to the above schedule, and frequently enough to ensure that the effluent is in compliance with the discharge specifications in the permit. Site-specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.
3. Under certain adverse conditions, more frequent sampling is required if it is appropriate. An adverse condition is defined as any problem that does or could affect treatment facility compliance or efficiency. If at any time the system is shut down for a continuous time period greater than 60 days, the effluent monitoring schedule described in Footnote 2 above must be reinitiated unless otherwise specifically approved by the Executive Officer.
4. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutant constituents, the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). If more than one analytical test method is listed for a given pollutant, the Discharger must select the lowest minimum levels specified in Appendix 4 of the SIP.

TENTATIVE

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute WET Testing

1. The presence of acute toxicity shall be determined as specified in the U.S. EPA's acute toxicity test methods in 40 C.F.R. part 136 for the *Pimephales promelas* survival test.
2. Dischargers that were not enrolled under Order R6T-2004-0025, or did not conduct WET testing under R6T-2010-0024, shall conduct WET tests on grab samples of undiluted effluent and an appropriate control water, as specified in the test method, upon startup of the treatment facility.
3. Where possible, the Discharger shall perform both acute WET testing and chemical-specific testing for parameters limited by this Order for which a grab sample is required using a split sample.
4. Acute WET results shall be reported in percent survival.
5. Concurrent testing with reference toxicants shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration, etc.).
6. If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the Discharger must re-sample and re-test within 14 days of receiving the results of the failed test.
7. The Discharger shall submit a full report of acute WET testing as soon as the laboratory results are available that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; and (3) the flow rate at the time of sample collection.
8. If survival is less than 90 percent in the initial sample, the Discharger shall conduct acute WET testing one time per month. When three consecutive monthly tests demonstrate a survival rate of greater than 90 percent of the test organisms, the Discharger may discontinue acute WET testing.
9. If any of the accelerated (monthly) tests demonstrate a survival rate of less than 70 percent, the Discharger shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with the requirements of Section X.C.2.a of the Order.

B. Chronic WET Testing

1. The presence of chronic toxicity shall be determined as specified in U.S. EPA's short-term chronic toxicity test methods in 40 C.F.R. part 136 for *Ceriodaphnia dubia* survival and reproduction and *Pimephales promelas* larval survival and growth.
2. Dischargers that were not enrolled under Order R6T-2004-0025, or did not conduct WET testing under R6T-2010-0024, shall conduct chronic WET tests on undiluted (100% effluent) grab samples and shall use an appropriate control water, as specified in the test method, upon startup of the treatment facility.
3. Where possible, the Discharger shall perform both chronic WET testing and chemical-specific testing for parameters limited by this Order for which a grab sample is required using a split sample.
4. For routine testing, Analysis of Variance (ANOVA) with $\alpha = 0.05$ shall be used to determine whether differences between control and effluent data are significant.
5. If a chronic toxicity test indicates a statistically significant difference between a sample of 100% effluent and a control, the Discharger shall initiate accelerated chronic WET testing at a frequency of one time per month.

TENTATIVE

6. Accelerated chronic WET results shall be reported in TUc where:

TUc = 100 / NOEC

NOEC = No Observed Effect Concentration: the highest concentration of effluent to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of effluent to which the values for the observed response show no statistically significant difference from a control).

Accelerated chronic WET testing shall use a series of five dilutions and a control. The dilutions shall be 12.5, 25, 50, 75, and 100 percent effluent, along with the control (0 percent effluent). Concurrent testing with reference toxicants shall be conducted using the same test conditions as the effluent toxicity test (i.e., same test duration, etc.).

7. When three consecutive accelerated monthly tests demonstrate no chronic toxicity, which is defined as WET test results not exceeding 1.0 TUc, the Discharger may discontinue chronic WET testing.

8. If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the Discharger must re-sample and re-test within 14 days of receiving the results of the failed test.

9. The Discharger shall submit a full report of chronic WET testing as soon as the laboratory results are available that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; and (3) the flow rate at the time of sample collection.

10. If any of the accelerated (monthly) tests demonstrate chronic toxicity (TUc > 1.0), the Discharger shall initiate a TRE in accordance with the requirements of Section X.C.2.a of the Order.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

The Permit does not authorize discharges to land.

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

The Permit does not authorize use or application of recycled water.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001 and RSW-002

1. The Discharger shall monitor the upstream and downstream receiving water at Monitoring Locations RSW-001 and RSW-002, respectively, as follows:

TENTATIVE

Table E-4. Upstream and Downstream Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrate (as N)	mg/L	Grab[1]	[2,3]	[4]
Perchlorate	µg/L	Grab[1]	[2,3]	[4]
Arsenic, Total Recoverable	µg/L	Grab[1]	[2,3]	[4]
Chromium VI	µg/L	Grab[1]	[2,3]	[4]
Benzene	µg/L	Grab[1]	[2,3]	[4]
1,1-Dichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,2-Dichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,1-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
cis-1,2-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
trans-1,2-Dichloroethene	µg/L	Grab[1]	[2,3]	[4]
Ethylbenzene	µg/L	Grab[1]	[2,3]	[4]
Ethylene Dibromide	µg/L	Grab[1]	[2,3]	[4]
Lead, Total Recoverable	µg/L	Grab[1]	[2,3]	[4]
Methyl Tertiary Butyl Ether	µg/L	Grab[1]	[2,3]	[4]
Naphthalene	µg/L	Grab[1]	[2,3]	[4]
Tertiary Butyl Alcohol	µg/L	Grab[1]	[2,3]	[4]
Tetrachloroethene	µg/L	Grab[1]	[2,3]	[4]
Toluene	µg/L	Grab[1]	[2,3]	[4]
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	Grab[1]	[2,3]	[4]
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	Grab[1]	[2,3]	[4]
1,1,1-Trichloroethane	µg/L	Grab[1]	[2,3]	[4]
1,1,2-Trichloroethane	µg/L	Grab[1]	[2,3]	[4]
Trichloroethene	µg/L	Grab[1]	[2,3]	[4]
Vinyl Chloride	µg/L	Grab[1]	[2,3]	[4]
Xylenes, Total	µg/L	Grab[1]	[2,3]	[4]

TENTATIVE

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

Table Notes:

1. Time of collection for grab samples must be recorded.
2. Specific constituents to be monitored shall be identified in the NOA. The minimum sampling frequency for constituents identified in the NOA shall be as follows:
   a. During the first 2 months of treatment unit operation, effluent samples shall be collected on the 1st, 4th, 14th, 28th, and 56th days of operation.
   b. During the third to sixth month, effluent sampling shall be conducted every 30 days.
   c. Thereafter, effluent sampling shall be conducted every 90 days.

   Sampling shall be conducted at a minimum according to the above schedule, and frequently enough to ensure that the effluent is in compliance with the discharge specifications in the permit. Site-specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.
3. Under certain adverse conditions, more frequent sampling is required if it is appropriate. An adverse condition is defined as any problem that does or could affect treatment facility compliance or efficiency. If at any time the system is shut down for a continuous time period greater than 60 days, the receiving water monitoring schedule described in Footnote 2 above must be reinitiated unless otherwise specifically approved by the Executive Officer.
4. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutant constituents, the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). If more than one analytical test method is listed for a given pollutant, the Discharger must select the lowest minimum levels specified in Appendix 4 of the SIP.

2. In conducting any receiving water sampling in accordance with the required sampling frequency, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

1. **Floating or suspended matter;**
2. **Discoloration;**
3. **Bottom deposits;**
4. **Aquatic life; and**
5. **Erosion and/or sediment deposition.**

Notes on receiving water conditions shall be maintained in a permanent logbook and summarized in the monitoring report.

IX. OTHER MONITORING REQUIREMENTS

A. Treatment Facility Startup Monitoring

After issuance of an NOA from the Executive Officer and prior to discharge of any treatment effluent, the Discharger shall conduct startup monitoring to confirm that the treatment system will produce effluent that complies with standards prescribed in the Order. During startup monitoring, the Discharger shall direct the treatment system discharge to a temporary, impervious storage container. Startup monitoring shall be conducted until two consistent, consecutive sample results indicate that the treatment system effluent has stabilized and is in compliance with the Order. Samples shall be collected a minimum of 12 hours and a maximum of 72 hours apart. Treatment system influent and effluent is required to be analyzed during startup monitoring for the constituents listed in Table E-3. Any treatment system

TENTATIVE

discharge that does not meet the effluent limitations in Tables 4 or 5 of the Order shall not be discharged to surface waters.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly as well as annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this General Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this General Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
All	NOA Effective Date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	April 15 July 15 October 15 January 15

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported

TENTATIVE

value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Lahontan Water Board and State Water Board, 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).

6. **Multiple Sample Data.** When determining compliance with an AMEL 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:

a. 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.

b. 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.

7. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

TENTATIVE

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. **Annual Report.** Upon written request, the Discharger shall submit an annual report to the Lahontan Water Board by January 30th of the following year. The report shall contain tabular, graphic, and narrative descriptions of the monitoring data obtained during the previous year. Additionally, the report shall clearly document the status of compliance with the Order. If any corrective actions were necessary during the year to maintain or retain compliance, this annual report shall discuss these actions in detail.

TENTATIVE

ATTACHMENT F – FACT SHEET

Contents

I. Permit Information F-3
II. Notification Requirements F-3
A. General Order Application F-3
B. Notice of Termination F-4
C. General Order Coverage F-4
III. Discharge Description F-6
A. Description of Wastewater F-6
B. Compliance Summary F-7
C. Planned Changes – Not Applicable F-7
IV. Applicable Plans, Policies, and Regulations F-7
A. Legal Authorities F-7
B. California Environmental Quality Act (CEQA) F-7
C. State and Federal Laws, Regulations, Policies, and Plans F-7
D. Impaired Water Bodies on CWA 303(d) List F-10
E. Other Plans, Policies and Regulations F-10
V. Rationale For Effluent Limitations and Discharge Specifications F-10
A. Discharge Prohibitions F-11
B. Technology-Based Effluent Limitations F-11
1. Scope and Authority F-11
2. Applicable Technology-Based Effluent Limitations F-12
C. Water Quality-Based Effluent Limitations (WQBELs) F-13
1. Scope and Authority F-13
2. Applicable Beneficial Uses and Water Quality Criteria and Objectives F-14
3. Determining the Need for WQBELs F-15
4. WQBEL Calculations F-15
5. Whole Effluent Toxicity (WET) F-20
D. Final Effluent Limitation Considerations F-21
1. Anti-Backsliding Requirements F-21
2. Antidegradation Policies F-21
3. Stringency of Requirements for Individual Pollutants F-22
E. Summary of Final Effluent Limitations F-22
F. Interim Effluent Limitations – Not Applicable F-23
G. Recycling Specifications – Not Applicable F-23
VI. Rationale for Receiving Water Limitations F-23
A. Surface Water F-23
VII. Rationale for Provisions F-23
A. Standard Provisions F-23
B. Special Provisions F-24
1. Reopener Provisions F-24
2. Special Studies and Additional Monitoring Requirements F-24
3. Best Management Practices and Pollution Prevention – Not Applicable F-25
4. Construction, Operation, and Maintenance Specifications – Not Applicable F-25
5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable F-25
6. Other Special Provisions – Not Applicable F-25
7. Compliance Schedules – Not Applicable F-25
VIII. Rationale for Monitoring and Reporting Requirements F-25
A. Influent Monitoring F-25

TENTATIVE

B. Effluent Monitoring F-25
C. Whole Effluent Toxicity Testing Requirements F-26
D. Receiving Water Monitoring F-26
1. Surface Water F-26
2. Groundwater – Not Applicable F-26
E. Other Monitoring Requirements F-26
IX. Public Participation F-26
A. Notification of Interested Parties F-26
B. Written Comments F-26
C. Public Hearing F-27
D. Waste Discharge Requirements Petitions F-27
E. Information and Copying F-27
F. Register of Interested Persons F-28
G. Additional Information F-28

Tables

Table F-1. Historic Effluent Limitations for Groundwater Treatment Facilities F-6
Table F-2. Summary of Technology-based Effluent Limitations F-13
Table F-3. Summary of Calculated, Existing and Final Effluent Limitations F-18
Table F-4. Summary of Final Effluent Limitations F-22

TENTATIVE

ATTACHMENT F – FACT SHEET

As described in section III.B of this General Order, the Lahontan Water Board incorporates this Fact Sheet as findings of the Lahontan Water Board supporting the issuance of this General Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this General Order.

This General Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this General Order that are specifically identified as "not applicable" have been determined not to apply to the Dischargers covered by this General Order. Sections or subsections of this General Order not specifically identified as "not applicable" are fully applicable to the Dischargers covered by this General Order.

I. PERMIT INFORMATION

A. The Lahontan Water Board has determined that existing and new groundwater treatment systems for pollution cleanup are appropriately regulated by a general National Pollutant Discharge Elimination System (NPDES) permit.

For the purposes of this General 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. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

The Notice of Intent (NOI), as shown in Attachment B, for existing and new treatment systems is intended to provide the Lahontan Water Board with information necessary for a determination of suitability for coverage or continued coverage under this General Order. The information required to be completed in the NOI in Attachment B meets the requirements for NOIs established at 40 C.F.R. section 122.25(b)(2) and satisfies the requirements for a Report of Waste Discharge (ROWD) established by Water Code section 13260. Water Code section 13260 requires a ROWD to start the application process for all Waste Discharge Requirements (WDRs) and NPDES permits, except for general WDRs or general NPDES permits that use the NOI to comply or specify the use of an alternative application form designed for the permit.

To obtain coverage under this General Order, which also serves as the NPDES permit, both new and existing treatment systems must submit an NOI for coverage. Information necessary to support the application is listed in Information to Support the NOI (Attachment C). Existing treatment systems must submit a complete NOI within 60 days of the effective date of this General Order. New treatment systems that are not currently covered by an individual NPDES permit must submit an NOI, including the first annual filing fee, at least 30 days prior to the anticipated start date of the discharge.

Existing Dischargers who fail to submit a complete NOI by the deadline established herein will be deemed as out of compliance with the General Order and subject to all penalties allowable pursuant to applicable provisions of the Clean Water Act and the Water Code, including section 13261 thereof. New Dischargers will not be authorized to discharge until a complete

TENTATIVE

NOI has been submitted to the Lahontan Water Board and the Executive Officer has given notice of authorization of coverage.

The NOI, as detailed in Attachment B, requires the submittal of the following information and data:

1. General information about the Discharger(s) and facility.
2. Location map, including discharge locations.
3. Treatment system description, including treatment system type (e.g., granular activated carbon, vapor extraction, air stripping), description of pollutant removal mechanisms, and estimated effluent concentrations.
4. Treatment system flow diagram / schematic.
5. Wastewater characterization for each discharge point to surface waters, including description of source, frequency, duration, volume of discharge; location of discharge; and effluent monitoring for the priority pollutants identified by the California Toxics Rule (CTR) at 40 C.F.R. section 131.38.
6. Receiving water characterization, including name, hydrologic unit, pollutants for which the waterbody is impaired pursuant to the Clean Water Act 303(d) list (see www.waterboards.ca.gov/lahontan/water_issues/programs/tmdls), and applicable water quality objectives from Chapter 3 of the Basin Plan.
7. The State Water Board has determined that general permits for discharges of treated groundwater to surface waters will be subject to the same annual fee (State Water Board Resolution 2002-0150), which is updated annually and is available at: www.waterboards.ca.gov/resources/fees/.
8. Additional information requirements for the NOI are further explained in Attachment C – Information to Support the NOI.
9. Additional information on water quality objectives and sampling requirements are contained in Attachment G and H.

B. Notice of Termination

1. When individual WDRs are issued to a Discharger otherwise subject to this Order, the applicability of this Order to the Discharger is automatically terminated on the effective date of the individual permit.
2. The Discharger shall notify the Lahontan Water Board within 30 days when cleanup activities are complete or when the discharge will no longer occur. At that time, the Executive Officer will consider revocation of the NOA. Once the NOA is revoked, the discharge will no longer be covered by this Order and no discharge may occur prior to compliance with provisions of the Water Code.

C. General Order Coverage

Upon review of the NOI, the Executive Officer shall determine the applicability of this General Order to the treatment system discharge(s). If the Discharger is deemed eligible for coverage, the Executive Officer shall issue a Notice of Applicability (NOA) to the Discharger. The NOA will serve to notify the Discharger that the discharge is authorized under the terms and conditions of this General Order. Once the Discharger has received the NOA, this General Order shall supersede any previous Order applicable to surface water discharges from the facility except for enforcement purposes. The NOA may specify additional site-specific monitoring and reporting requirements. For existing treatment systems, the NOA shall serve to rescind coverage under the existing NPDES permit. A new discharge for which coverage

TENTATIVE

under this General Order is being sought shall not commence until after receiving the Executive Officer's written NOA or until the Lahontan Water Board has issued an individual NPDES permit for the discharge.

The Lahontan Water Board may require any Discharger requesting coverage under this General Order to apply for and obtain an individual NPDES permit in accordance with 40 C.F.R. section 122.28(b)(3)(i). Treatment systems that discharge to a Clean Water Act section 303(d) listed waterbody, or a waterbody subject to one or more applicable Total Maximum Daily Loads (TMDLs) will be evaluated on a case-by-case basis for coverage under this General Order or coverage under an individual permit.

In accordance with 40 C.F.R. section 122.28(b)(3)(iii), any Discharger may request to be excluded from coverage under a general NPDES permit by applying for an individual NPDES permit. The Discharger must provide justification supporting the request for an individual NPDES permit and reasons why coverage under this General Order is not appropriate. Upon receipt of the request, the Executive Officer shall determine if an individual NPDES permit should be issued.

The Discharger is subject to the terms and conditions of this General Order and is responsible for submitting the annual fee associated with this General Order until a written request for official termination of coverage is made to and is received by the Lahontan Water Board. If the Lahontan Water Board issues an individual NPDES permit or WDRs with more specific requirements to a Discharger, the applicability of this General Order is automatically terminated on the effective date of the individual permit.

This Order serves as a general NPDES permit for the discharge of treated groundwater to surface waters. The groundwater pollution requiring treatment is typically related to unauthorized releases regulated under the Lahontan Water Board's underground storage tank, site cleanup, and land disposal programs. Sites in these programs are varied and include, but are not limited to, gas stations, landfills, mines, mills, rail yards, industrial manufacturing sites, maintenance yards, dry cleaners, and petroleum bulk storage and pipeline facilities.

Wastewater remediated by the treatment system may typically be generated from the following sources during the investigation and/or remediation of identified or potential groundwater pollution:

- Groundwater extracted from the underlying aquifer as part of the groundwater remediation process;
- Potentially polluted groundwater generated during aquifer pump tests;
- Potentially polluted well development water or purge water generated during groundwater monitoring; and
- Other wastewater generated during site investigations or cleanups.

This Order does not cover the following:

- Treated wastewaters discharged (with permission of the owner of the municipal system) to a municipal wastewater collection, treatment, and disposal system that is already covered by WDRs from the Lahontan Water Board; or
- Discharges to ponds, infiltration basins, spray disposal areas, subsurface infiltration, or other methods not involving discharge to surface waters or surface water drainage courses (which are covered by individual WDRs or by general WDRs for land disposal adopted by the Lahontan Water Board).

TENTATIVE

III. DISCHARGE DESCRIPTION

Discharge of treated groundwater to surface waters of the United States from cleanups of identified or potential pollution are currently regulated by Order R6T-2010-0024 which was adopted on June 9, 2010, and expired on June 9, 2015. The terms and conditions of Order R6T-2010-0024 have been automatically continued and remain in effect until new WDRs and NPDES permit are adopted pursuant to this Order.

The previous Order covered Dischargers treating groundwater contaminated with petroleum from underground storage tanks, and discharges of treated effluent to surface waters. This Order expands coverage to include discharges from treatment systems used for remediating groundwater at the following, but not limited to, sources of pollution: gas stations, landfills, mines, mills, rail yards, industrial manufacturing sites, maintenance yards, dry cleaners, and petroleum bulk storage and pipeline facilities. This Order also expands coverage to consider ambient concentrations of contaminants in groundwater, and to prevent high concentrations in treatment system effluent from degrading surface water quality.

A. Description of Wastewater

Effluent from a groundwater treatment system to surface waters could affect the quality of the waters of the United States. This Order covers the discharge of treated groundwater from cleanups of identified or potential pollution, other than through a community wastewater collection and treatment system, to surface waters of the United States.

The primary pollutants contained in discharges covered by the previous Orders included petroleum hydrocarbon and chlorinated hydrocarbon constituents. Effluent limitations for discharges of treated groundwater from cleanups of pollution to surface waters were as follows:

Table F-1. Historic Effluent Limitations for Groundwater Treatment Facilities

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Benzene	µg/L	0.5	1
1,1-Dichloroethane	µg/L	0.5	5
1,2-Dichloroethane	µg/L	0.5	0.50
1,1-Dichloroethene	µg/L	0.5	6
cis-1,2,-Dichloroethene	µg/L	0.5	6
trans-1,2-Dichloroethene	µg/L	0.5	10
Ethylbenzene	µg/L	0.5	29
Ethylene Dibromide	µg/L	0.02	0.02
Lead, Total Recoverable	µg/L	0.5[1]	15
Methyl Tertiary Butyl Ether	µg/L	0.5	5
Naphthalene	µg/L	0.2	20
Tertiary Butyl Alcohol	µg/L	5.0	50
Tetrachloroethene	µg/L	0.5	5
Toluene	µg/L	0.5	42
Total Petroleum Hydrocarbons, Gasoline Range (C_6-C_{10})	µg/L	--	50
Total Petroleum Hydrocarbons, Diesel Range (C_{10}-C_{28})	µg/L	--	50
1,1,1-Trichloroethane	µg/L	0.5	200
1,1,2-Trichloroethane	µg/L	0.5	5
Trichloroethene	µg/L	0.5	5
Vinyl Chloride	µg/L	0.5	0.5
Xylenes, Total	µg/L	0.5	17

TENTATIVE

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Table Notes: 1. This AMEL could be set above 0.5 µg/L if the Discharger can demonstrate in the Notice of Intent (Attachment B) that background concentrations in the receiving water are greater than 0.5 µg/L. Any AMEL allowed above 0.5 µg/L will be listed in the NOA. All samples for total lead are to be filtered samples.			

B. Compliance Summary

Currently, one existing facility is covered under Order R6T-2010-0024. No violations have been noted.

C. Planned Changes – Not Applicable

IV. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this General Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This General Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This General Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.

40 C.F.R. section 122.28 authorizes the U.S. EPA and approved states to issue general permits to regulate a point source category, if the sources:

1. Involve the same or substantially similar types of operations;
2. Discharge the same type of waste;
3. Require the same type of effluent limitations or operating conditions;
4. Require similar monitoring; and
5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, U.S. EPA granted the State of California, through the State Water Board and Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of division 13 of the Public Resources Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Lahontan Water Board adopted a *Water Quality Control Plan for the Lahontan Region* (hereinafter Basin Plan) 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 at section 2, Beneficial Uses, states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all

TENTATIVE

waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

Designated beneficial uses of many surface waters within the Lahontan region include municipal and domestic supply (MUN); agricultural supply (AGR); groundwater recharge (GWR); freshwater replenishment (FRSH); water contact recreation (REC-1); non-contact water recreation (REC-2); cold freshwater habitat (COLD); cold spawning, reproduction, and development (SPWN); commercial and sport fishing (COMM); wildlife habitat (WILD); water quality enhancement (WQE); and flood peak attenuation/flood water storage (FLD). Waters at some locations may also be designated for industrial service supply (IND); industrial process supply (PRO); hydropower generation (POW); navigation (NAV); preservation of biological habitats of special significance (BIOL); aquaculture (AQUA); water freshwater habitat (WARM); inland saline water habitat (SAL); rare, threatened, or endangered species (RARE); and migration of aquatic organisms (MIGR). Table 2-1 in the Basin Plan may be consulted for the beneficial use designations for any specific water body.

The Basin Plan also identifies areas which constitute an Outstanding National Resource Water (ONRW). In accordance with 40 CFR 131.12(a)(3), these waters must be maintained and protected, and no permanent or long-term reduction in water quality is allowable. Examples of such water include, but are not limited to, waters of National and State Parks and wildlife refuges, waters of exceptional recreational or ecological significance, and state and federally designated wild and scenic rivers. To date, the only California waters designated as ONRWs are Lake Tahoe and Mono Lake.

Designated beneficial uses for Lake Tahoe surface waters include: municipal and domestic supply (MUN); agricultural supply (AGR); groundwater recharge (GWR); freshwater replenishment (FRSH); navigation (NAV); water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); cold freshwater habitat (COLD); wildlife habitat (WILD); preservation of biological habitats of special significance (BIOL); rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); cold spawning, reproduction, and development (SPWN); water quality enhancement (WQE); and flood peak attenuation/flood water storage (FLD).

Designated beneficial uses for Mono Lake surface waters include: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); groundwater recharge (GWR); freshwater replenishment (FRSH); navigation (NAV); hydropower generation (POW); water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); aquaculture (AQUA); cold freshwater habitat (COLD); inland saline water habitat (SAL); wildlife habitat (WILD); preservation of biological habitats of special significance (BIOL); rare, threatened, or endangered species (RARE); cold spawning, reproduction, and development (SPWN); water quality enhancement (WQE); and flood peak attenuation/flood water storage (FLD).

Tables 2-1 and 2-2 of the Basin Plan also include the beneficial use designations for specific surface waters within the Mono Lake Basin.

Requirements of this Order implement the Basin Plan, including the numeric water quality objectives listed for specific water bodies.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA 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, U.S. EPA

TENTATIVE

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 federal water quality criteria for priority pollutants.

3. **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 U.S. EPA through the NTR and to the priority pollutant objectives established by the State Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA 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 General Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, U.S. EPA revised its regulations that specify when new and revised state and tribal water quality standards become effective for CWA purposes (65 Fed. Reg. 24641 [April 27, 2000]). New and revised standards submitted to U.S. EPA after May 30, 2000, must be approved by U.S. EPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to U.S. EPA by May 30, 2000, may be used for CWA purposes, whether or not approved by U.S. EPA.

5. **Antidegradation Policy.** Federal regulation 40 C.F.R. 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 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality 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. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16. If, however, the Lahontan Water Board, subsequent to review of any NOI, finds that the impact of a discharge will not be consistent, then authorization for coverage under this General Order will be denied and coverage under an individual permit will be required (including preparation of an antidegradation analysis).

6. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

7. **Endangered Species Act Requirements.** This General Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This General Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. Each Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

TENTATIVE

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies, to U.S. EPA by April of each even numbered year. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. U.S. EPA requires the Lahontan Water Board to develop Total Maximum Daily Loads (TMDLs) for each 303(d) listed pollutant and water body contaminant. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine waste load allocations (the portion of a TMDL allocated to existing and future point sources) for point sources and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources) for nonpoint sources.

In October 2011, U.S. EPA approved a revised list of impaired water bodies prepared pursuant to CWA section 303(d), which requires identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Where it has not done so already, the Lahontan Water Board plans to adopt TMDLs for pollutants on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for non-point sources, and are established to achieve the water quality standards for the impaired water bodies.

Numerous water bodies are listed as impaired for arsenic, including: Honey Lake, Donner Lake, Mammoth Creek, and the Amargosa River. TMDLs are not scheduled for completion until 2019, 2025, 2021, and 2021 respectively.

Three water bodies are listed as impaired for nitrate, including: Carson River (Headwaters to Woodfords, and Woodsfords to Paynesville), and Sheep Creek. TMDLs are not scheduled for completion until 2019, 2025, and 2021 respectively. Enrollees under this Order that discharge to these impaired water bodies may be required to collect discharge monitoring data applicable to developing appropriate future waste load allocations for the discharge.

E. Other Plans, Policies and Regulations

1. **Storm Water**. Coverage under the State Water Board Water Quality Order 2014-0057-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (Industrial Storm Water General Permit) is not required for groundwater treatment systems.

V. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

Section 4.1 of the Basin Plan contains prohibitions against the discharge of waste to surface waters in various locations throughout the Lahontan Region. Any discharge proposed in an area

TENTATIVE

where a discharge prohibition may apply must be evaluated on an individual basis to determine if the discharge would violate the prohibition. In some instances, exemptions may be granted on a case-by case-basis by resolution of the Lahontan Water Board, and the Executive Officer in accordance with Lahontan Water Board Policy. In addition to the specific prohibitions for various locations in the Lahontan Region, the following general prohibitions apply throughout the Lahontan Region.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan (section 4.1 for region-wide prohibitions and section 5.2 for prohibitions for discharges in the Lake Tahoe Hydrologic Unit), and the prohibitions previously established in Order R6T-2010-0024.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 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 General Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

6. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

a. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

b. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

c. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Lahontan Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

TENTATIVE

2. Applicable Technology-Based Effluent Limitations

There are no ELGs applicable to discharges associated with groundwater treatment systems. Therefore technology-based effluent limitations will be established based on BPJ, as described further below.

a. Existing Pollutants of Concern: As described in Section III.A of this Fact Sheet, the primary pollutants contained in discharges covered by this Order related to groundwater remediation include: petroleum hydrocarbons and chlorinated hydrocarbon constituents, some metals, and naturally occurring pollutants found in groundwater throughout the Region at high concentrations. Petroleum hydrocarbon constituents include total petroleum hydrocarbons measured as gasoline, diesel, kerosene, fuel oil, and heavier carbon ranges; benzene; toluene; ethylbenzene; xylenes; methyl tertiary butyl ether (MTBE); tetraethyl lead; and ethylene dibromide. Chlorinated hydrocarbon constituents include trichloroethene and tetrachloroethene and their secondary degradation products. Some groundwaters may also be contaminated by nitrate, perchlorate and chromium VI from a variety of sources, as previously identified. In addition, naturally occurring concentrations of arsenic, perchlorate and nitrate have been found in groundwater.

Existing treatment technology is capable of dependably removing these pollutants from contaminated groundwater prior to discharge. Existing self-monitoring data show that treatment facilities in the Region are able to reliably meet the numeric effluent limitations for these pollutants of concern, and consistently treat the effluent to non-detectable levels using existing treatment and control technologies.

Appendix 4 of the SIP identifies Minimum Levels (MLs) for priority pollutants for use in reporting and compliance determination purposes. Pollutants of concern with applicable MLs in the SIP include 1,2-dichloroethane, benzene, toluene, ethylbenzene, naphthalene, lead, tetrachloroethene, trichloroethene, 1,1,1-trichloroethane, trans-1,2-dichloroethene, 1,1-dichloroethene, 1,1-dichloroethane, 1,1,2-trichloroethane, and vinyl chloride. The technology based effluent limitations were established as AMELs in the previous Order

Some pollutants of concern, including ethylene dibromide, xylenes, MTBE, tertiary butyl alcohol, and cis-1,2-dichloroethene, do not have MLs in the SIP. For these pollutants, the previous Order established technology-based effluent limitations as AMELs based on the commonly achieved analytical reporting levels at that time.

Order R6T-2010-0024 established a technology-based effluent limitation for total petroleum hydrocarbons in the gasoline range (C6 - C10) and the diesel range (C10 - C28). For the gasoline range of total petroleum hydrocarbons, the Lahontan Water Board determined that available technology can consistently remove total petroleum hydrocarbons in the gasoline range to 50 µg/L on a daily basis. Therefore, this Order retains the technology-based effluent limitation for total petroleum hydrocarbons in the gasoline range as a MDEL. The current, commonly achieved reporting level for diesel range of total petroleum hydrocarbons is 50 µg/L.

Technology-based effluent limitations, based on the lowest MLs in the SIP and current, commonly achieved reporting levels and established as AMELs, are retained from the previous Order and are summarized in the table below along with suggested analytical methods.

Constituents to be monitored shall be identified in the NOA issued to the Discharger. Analytical methods have not been developed for all of the pollutants of concern in discharges of treated groundwater from cleanup of identified or potential

TENTATIVE

groundwater pollution. However, compliance with the effluent limitations for the pollutants listed in Table 4 of the Order is expected to effectively control the discharge of the pollutants of concern in discharges of treated groundwater from the cleanup of identified or potential groundwater pollution.

Table F-2. Summary of Technology-based Effluent Limitations

Facility	Units	Effluent Limitations		Suggested Analytical Method
		Average Monthly	Maximum Daily	
Benzene	µg/L	0.5	--	[1]
1,1-Dichloroethane	µg/L	0.5	--	[1]
1,2-Dichloroethane	µg/L	0.5	--	[1]
1,1-Dichloroethene	µg/L	0.5	--	[1]
cis-1,2-Dichloroethene	µg/L	0.5	--	[1]
trans-1,2-Dichloroethene	µg/L	0.5	--	[1]
Ethylbenzene	µg/L	0.5	--	[1]
Ethylene Dibromide	µg/L	0.02	--	[1]
Lead, Total Recoverable	µg/L	0.5	--	[1]
Methyl Tertiary Butyl Ether	µg/L	0.5	--	[1]
Naphthalene	µg/L	0.2	--	[1]
Tertiary Butyl Alcohol	µg/L	5.0	--	[1]
Tetrachloroethene	µg/L	0.5	--	[1]
Toluene	µg/L	0.5	--	[1]
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	--	50	[1]
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	--	50	[1]
1,1,1-Trichloroethane	µg/L	0.5	--	[1]
1,1,2-Trichloroethane	µg/L	0.5	--	[1]
Trichloroethene	µg/L	0.5	--	[1]
Vinyl Chloride	µg/L	0.5	--	[1]
Xylenes, Total	µg/L	0.5	17	[1]

Table Notes:

1. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutant constituents, the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). If more than one analytical test method is listed for a given pollutant, the Discharger must select the lowest minimum levels specified in Appendix 4 of the SIP.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. 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) of 40 C.F.R. requires 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, water quality-based effluent limitations (WQBELs) must be established using: 1) U.S. EPA 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

TENTATIVE

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).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan 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 federal CWA section 101(a)(2), states: "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983." Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 C.F.R. sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shell fish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. Section 131.3(e), 40 C.F.R., defines existing beneficial uses as those uses actually attained after 28 November 1975, whether or not they are included in the water quality standards. Federal Regulation, 40 C.F.R. section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

a. Receiving Water and Beneficial Uses

Beneficial use designations for receiving waters are presented in section IV.C.1 of this Fact Sheet.

b. Basin Plan Water Quality Objectives

The water quality objectives applicable to receiving waters for discharges regulated under this Order are from the Basin Plan; the CTR, established by USEPA at 40 C.F.R. section 131.38; and the NTR, established by USEPA at 40 C.F.R. section 131.36. Some pollutants have water quality objectives established by more than one of these sources.

i. **Basin Plan.** The Basin Plan specifies numeric and narrative water quality objectives for pollutants in order to protect beneficial uses. The narrative toxicity objective states, "*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.*"

The Chemical Constituents provisions in the Basin plan also states, "Water designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes)."

TENTATIVE

Section 5.1 of the Basin Plan includes specific water quality objectives for the Lake Tahoe Hydrologic Unit.

Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

ii. **CTR**. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to all inland surface waters and enclosed bays and estuaries. Human health criteria are further identified as for "water and organisms" or for "organisms only."

iii. **NTR**. The NTR establishes numeric aquatic life criteria for selenium and numeric human health criteria for 33 toxic organic pollutants.

c. **Water Quality Objectives**. Water quality objectives were used during the last permit term to establish MDELs for pollutants of concern, which included primary and secondary MCLs, three threshold odor unit (TOU), Suggested No Adverse Effect Level (SNARL), and U.S. EPA's Health Advisory. This Order, in accordance with the SIP, derived WQBELs using applicable aquatic criteria and human health criteria. The results were then compared to the water quality objectives, and the most stringent effluent limitations have been included in this Order. Effluent limitations may be established from specific water quality objectives listed in the Basin Plan for individual receiving waters.

3. Determining the Need for WQBELs

NPDES regulations at 40 C.F.R. section 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.

The SIP establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP to establish numeric effluent limitations, if necessary, for pollutants showing reasonable potential.

Section 1.3 of the SIP requires the Lahontan Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct an RPA. An RPA was not conducted for this General Permit because overall lack of data available that would adequately characterize the expected pollutant concentrations in effluents from contaminated groundwater pump-and-treat systems. However, the Lahontan Regional Board has identified the pollutants of concern expected to be present in effluents from contaminated groundwater pump-and-treat systems. These pollutants of concern, the discharge of which were regulated under Order R6T-2010-0024, are listed in Table F-1. As also described in Section V.B.2.a of this Fact Sheet, some groundwaters may also be contaminated by nitrate, perchlorate and chromium VI from various pollution sources. In addition, naturally occurring concentrations of arsenic, perchlorate and nitrate have been found in groundwater in the Region.

The Lahontan Water Board has determined that there is reasonable potential for all the pollutants of concern described above to exceed applicable water quality objectives.

4. WQBEL Calculations

WQBELs in Order R6T-2010-0024 were established for pollutants of concern based on water quality objectives necessary to protect water quality in the receiving waters

TENTATIVE

throughout the Lahontan Region. The following describes the methodology used to calculate WQBELs for all the pollutants of concern for this Order.

a. WQBELs for Non-Priority Pollutants

WQBELs for non-priority pollutants are based on Basin Plan objectives. Consistent with the approach used in Order R6T-2010-0024, the objectives are applied directly as maximum daily effluent limitations (MDELs). The following non-priority pollutants are added, as described below:

i. **Cis-1,2-Dichloroethene.** Order R6T-2010-0024 established a MDEL for this pollutant which was based on California primary MCLs. This MDEL will be retained in this Order.

ii. **Ethylene Dibromide.** Order R6T-2010-0024 established a MDEL for this pollutant based on SNARL. This MDEL will be retained in this Order.

iii. **MTBE.** Order R6T-2010-0024 established a MDEL for this pollutant based on California secondary MCLs. This MDEL will be retained in this Order.

iv. **Nitrate.** Order R6T-2010-0024 did not establish a MDEL for this pollutant. A MDEL based on California primary MCL (10 mg/L) will be established in this Order. This pollutant was added to this Order to address ambient nitrate concentrations in groundwater regardless of its source (i.e., natural or anthropogenic).

v. Table 3-16 of the Basin Plan establishes an annual average nitrate effluent limitation for Mono Lake and its tributaries at 37 mg/L. The designated beneficial use for Mono Lake is MUN. To protect the MUN beneficial use and to consistently apply the nitrate effluent limitation regionwide, an MDEL based on the MCL of 10 mg/L will be established for discharges to Mono Lake. Therefore, using the MCL for nitrate will be more protective than Basin Plan objectives for Mono Lake. **Perchlorate.** Order R6T-2010-0024 did not establish a MDEL for this pollutant. A MDEL based on California primary MCLs will be established in this Order. This pollutant was added to this Order to address its potential presence in groundwater regardless of the source (i.e., natural or anthropogenic).

vi. **Tertiary Butyl Alcohol (TBA).** Order R6T-2010-0024 established a MDEL for this pollutant. Applicable water quality objectives were not available for this pollutant. However, TBA is a pollutant of concern in groundwater remediation clean ups involving petroleum and the existing limit was protective of the receiving waters during the last permit term. Therefore, this MDEL continues to be protective, and will be retained in this Order.

vii. **Total Petroleum Hydrocarbons (TPHs).** Order R6T-2010-0024 established performance based MDELs for the gasoline and diesel ranges of TPHs. Applicable water quality objectives are not available for these pollutants. However, TPHs are a pollutant of concern in groundwater remediation cleanups and the existing limit was protective of the receiving waters during the last permit term. Therefore, these MDELs will be retained in this Order.

viii. **Xylenes.** Order R6T-2010-0024 established a MDEL for this pollutant based on TOU concentrations. This MDEL will be retained in this Order.

TENTATIVE

b. WQBELs for Priority Pollutants

To maintain consistency throughout the Region, and to adhere to the procedures in the SIP, WQBELs were calculated for priority pollutants of concern using the SIP. Both AMELs and MDELs have been calculated for all priority pollutants of concern, and compared to the existing effluent limitations.

The WQBELs for toxic pollutants were calculated based on water quality objectives and the procedures specified in SIP section 1.4, as described further below.

Aquatic life freshwater and saltwater criteria in the CTR and NTR are identified as criterion maximum concentrations (CMC) and criterion continuous concentrations (CCC). The CTR defines the CMC as the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects and the CCC as the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The most stringent freshwater aquatic life criteria were applied when calculating effluent limitations for metals.

Human health criteria in the CTR and NTR are further identified as “water and organisms” and “organisms only.” “Water and organism” criteria are designed to address risks to human health from multiple exposure pathways. The criteria from the “water and organisms” was used to calculate effluent limitations in this Order because the Basin Plan identifies that the receiving waters have an existing or potential beneficial use designation of municipal and domestic supply.

i. **Effluent Concentration Allowance (ECA).** For each water quality criterion/objective for which the SIP procedures were used to calculate effluent limitations, the ECA is calculated using the following steady-state mass balance equation from Section 1.4 of the SIP:

$$ECA = C + D(C - B) \quad \text{where } C>B, \text{ and}$$
$$ECA = C \quad \text{where } C \leq B$$

where:

ECA = effluent concentration allowance
D = dilution credit
C = the priority pollutant criterion/objective
B = the ambient background concentration.

According to the SIP, the ambient background concentration (B) in the equation above shall be the observed maximum with the exception that an ECA calculated from a priority pollutant criterion/objective that is intended to protect human health from carcinogenic effects shall use the arithmetic mean concentration of the ambient background samples. For ECAs based on MCLs, which implement the Basin Plan’s chemical constituents objective and are applied as annual averages, an arithmetic mean is also used for B due to the long-term basis of the criteria.

ii. **Aquatic Toxicity Criteria.** WQBEL’s based on acute and chronic aquatic toxicity criteria are calculated in accordance with Section 1.4 of the SIP. The ECAs are converted to equivalent long-term averages (i.e., LTA_{acute} and $LTA_{chronic}$) using statistical multipliers and the lowest LTA is used to calculate the AMEL and MDEL using additional statistical multipliers.

TENTATIVE

iii. Human Health Criteria. WQBEL's based on human health criteria, are also calculated in accordance with Section 1.4 of the SIP. The AMEL is set equal to ECA and a statistical multiplier was used to calculate the MDEL.

$$AMEL = mult_{AMEL}\left[\min\left(\overbrace{M_A ECA_{acute}}^{LTA_{acute}}, M_C ECA_{chronic}\right)\right]$$

$$MDEL = mult_{MDEL}\left[\min\left(M_A ECA_{acute}, \underbrace{M_C ECA_{chronic}}_{LTA_{chronic}}\right)\right]$$

$$MDEL_{HH} = \left(\frac{mult_{MDEL}}{mult_{AMEL}}\right) AMEL_{HH}$$

where:

$mult_{AMEL}$ = statistical multiplier converting minimum LTA to AMEL
$mult_{MDEL}$ = statistical multiplier converting minimum LTA to MDEL
M_A = statistical multiplier converting acute ECA to LTA_{acute}
M_C = statistical multiplier converting chronic ECA to $LTA_{chronic}$

c. Final WQBELs

Final WQBELs in this Order have been established based on the site-specific Basin Plan water quality objectives for the Lahontan Region, and the SIP. Based on the methodology outlined in the SIP, AMELs, and MDELs were calculated for priority pollutants. These effluent limitations were compared to the existing permit limitations, and the more stringent limitations were established as final limits, as outlined in the table below:

Table F-3. Summary of Calculated, Existing and Final Effluent Limitations

Pollutant	Units	Calculated Effluent Limitations		Existing Effluent Limitations		Final Effluent Limitations	
		Average Monthly	Maximum Daily	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum
Nitrate (as N)	mg/L	--	10	--	--	--	10
Perchlorate	µg/L	--	6.0	--	--	--	6.0
Arsenic, Total Recoverable	µg/L	10	20	--	--	10	20
Chromium VI	µg/L	5.5	11	--	--	5.5	11
Benzene	µg/L	1.2	2.4	0.5	1	0.5	1.0
1,1-Dichloroethane	µg/L	--	5	0.5	5	0.5	5
1,2-Dichloroethane	µg/L	0.38	0.76	0.5	0.5	0.38	0.5
1,1-Dichloroethene	µg/L	--	6	0.5	6	0.5	6
cis-1,2-Dichloroethene	µg/L	--	6	0.5	6	0.5	6
trans-1,2-Dichloroethene	µg/L	700	1404	0.5	10	0.5	10
Ethylbenzene	µg/L	3100	6219	0.5	29	0.5	29
Ethylene Dibromide	µg/L	--	0.02	0.02	0.02	0.02	0.02
Lead, Total Recoverable	µg/L	1.6	3.2	0.5	15	0.5	3.2

TENTATIVE

Pollutant	Units	Calculated Effluent Limitations		Existing Effluent Limitations		Final Effluent Limitations	
		Average Monthly	Maximum Daily	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum
Methyl Tertiary Butyl Ether	µg/L	--	5	0.5	5	0.5	5
Naphthalene	µg/L	--	20	0.2	20	0.2	20
Tertiary Butyl Alcohol	µg/L	--	50	5	50	5	50
Tetrachloroethene	µg/L	0.8	1.6	0.5	5	0.5	1.6
Toluene	µg/L	6800	13,642	0.5	42	0.5	42
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	--	100	--	50	--	50
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	--	100	--	50	--	50
1,1,1-Trichloroethane	µg/L	--	200	0.5	200	0.5	200
1,1,2-Trichloroethane	µg/L	0.6	1.2	0.5	5	0.5	1.2
Trichloroethene	µg/L	2.7	5.4	0.5	5	0.5	5.0
Vinyl Chloride	µg/L	2.0	4.0	0.5	0.5	0.5	0.5
Xylenes, Total	µg/L	--	17	0.5	17	0.5	17

Calculated effluent limitations were derived from the human heath criteria for arsenic, and freshwater aquatic criteria were used for chromium VI and lead. California MCLs also exist for these pollutants. The calculated effluent limits were then compared to Water Quality Objectives, such as MCLs, and the most stringent criteria were applied as final effluent limitations.

For arsenic, and to protect the beneficial use of MUN, the MCL of 10 ug/L is established as the AMEL, which is based on human health, and is more stringent than the aquatic life criteria in the CTR of 150 ug/L.

In accordance with Section 1.4 of the SIP, for surface waters with the designated uses as MUN, the AMEL is set to the MCL, and a statistical multiplier was used to calculate the MDEL. Using Table 2 of the SIP, a MDEL was calculated for arsenic. Assuming a CV of 0.6 and a sample size of n=4, a multiplier of 2.01 was used to derive a MDEL for arsenic of 20 µg/L.

For chromium VI, the calculated effluent limitations based on aquatic life criteria resulted in a AMEL of 5.5 µg/L and a MDEL of 11 µg/L. In addition, a California MCL of 10 µg/L exists for this pollutant. This Order establishes the calculated AMEL of 5.5 µg/L which is more stringent than the MCL of 10 µg/L. The MDEL for chromium VI will be based on the calculated limit. Calculated effluent limitations were derived from freshwater aquatic life criteria for arsenic, chromium VI and lead. California MCLs also exist for these pollutants. The calculated effluent limits were then compared to Water Quality Objectives, such as MCLs, and the most stringent criteria were applied as final effluent limitations.

For arsenic, the calculated effluent limitations based on aquatic life criteria resulted in a AMEL of 5.5 µg/L and a MDEL of 11 µg/L. In addition, a California MCL of 10 µg/L exists

TENTATIVE

for this pollutant. This Order establishes the calculated AMEL, which is more stringent than the MCL. The MDEL for arsenic will be based on the calculated limit.

In accordance with Section 1.4 of the SIP, for surface waters with the designated uses as MUN, the AMEL is set to the MCL, and a statistical multiplier was used to calculate the MDEL. Using Table 2 of the SIP, a MDEL was calculated for arsenic. Assuming a CV of 0.6 and a sample size of n=4, a multiplier of 2.01 was used to derive a MDEL for arsenic of 20 µg/L.

For chromium VI, the calculated AMEL is more stringent than the MCL, and therefore, the calculated AMEL will be established in this Order. The MDEL for chromium VI will be based on the calculated limit.

For lead, effluent limitations were calculated assuming a receiving water hardness value of 100 mg/L. The calculated AMEL of 1.6 µg/L is less stringent than the existing AMEL of 0.5 ug/L. The calculated MDEL of 3.2 ug/L is more stringent than the existing MDEL of 15 mg/L. Therefore, the existing AMEL will be retained, and the MDEL will be revised to the more stringent limitation. For lead, Order R6T-2010-0024 allowed an increase in the effluent limitation for lead if the Discharger could demonstrate that the background lead concentration in the receiving water exceeded the effluent limitation. This provision for lead will not be retained in this Order. As part of the NOI review and NOA development process the Lahontan Regional Board will address these type of situations for each individual Discharger.

Based on the procedures outlined in Section 1.4 of the SIP for calculating WQBELs, three pollutants have more stringent calculated effluent limitations than the limits contained in the previous Order. As a result, the effluent limitations for these pollutants have been revised and include: 1,2-dichloroethane, tetrachloroethene, and 1,1,2-trichloroethane.

For 1,2-dichloroethane, the calculated AMEL is more stringent than the existing AMEL, and therefore, the calculated AMEL will included in this Order. The calculated MDEL is less stringent and as a result, the existing MDEL will be retained in this Order.

For tetrachloroethene, and 1,1,2-trichloroethane, the calculated MDEL is more stringent than the existing MDEL, and therefore, the calculated MDEL will be included in this Order. The calculated AMEL is less stringent and as a result, the existing AMEL will be retained in this Order.

All other pollutants will retain their existing effluent limitations because their limits are as stringent, or more stringent, than the calculated WQBELs.

5. Whole Effluent Toxicity (WET)

WET tests measure the degree of response of exposed aquatic test organisms to an effluent to determine the aggregate toxic effect of a mixture of pollutants in the effluent. The WET approach allows for protection of narrative toxicity objectives or implementation of numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test generally is conducted over a longer period of time or during a critical life phase and may measure mortality, reproduction, growth, or other sub-lethal responses.

The Basin Plan specifies a narrative objective for toxicity, requiring that: "*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms,*

TENTATIVE

analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Regional Board. The survival of aquatic life in surface waters subject to a waste discharge, or other controllable water quality factors, shall not be less than that for the same waterbody in areas unaffected by the waste discharge or, when necessary, for other control water..."

In addition, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

Based on the pollutants of concern present in discharges from cleanups of identified or potential groundwater pollution to surface waters, the discharges covered by this Order exhibit reasonable potential to cause or contribute to acute and chronic toxicity in the receiving water. Therefore, this Order includes effluent limitations for acute toxicity which specify that the effluent shall not exhibit acute toxicity, defined as less than 90 percent survival of *Pimephales promelas* in undiluted effluent in greater than or equal to 50 percent of the samples in a calendar year or less than 70 percent survival of *Pimephales promelas* in undiluted effluent in greater than or equal to 10 percent of the samples in a calendar year. For Dischargers that were not covered by Order R6T-2010-0024, this Order requires acute and chronic WET testing upon startup of the treatment system. For discharges that exhibit acute or chronic toxicity, this Order requires accelerated monitoring until the discharge does not cause toxicity. Additional toxicity requirements are included in this Order that are expressed as Provisions and serve as triggers for accelerated testing and initiation of a TRE. Dischargers that were enrolled under Order R6T-2010-0024 were required to complete toxicity testing and demonstrate that their discharges do not cause toxicity. Therefore, Dischargers that were enrolled under Order R6T-2004-0025 or performed testing under Order R6T-2010-0024 are not required to perform additional toxicity testing.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. 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. The effluent limitations in this General Order are at least as stringent as the effluent limitations in Order R6T-2010-0024.

2. Antidegradation Policies

Provisions of this General Order are consistent with applicable anti-degradation policy expressed by NPDES regulations at 40 C.F.R. section 131.12 and by State Water Board Resolution No. 68-16. This General Order requires compliance with technology-based standards, and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. Discharges from treatment systems covered by this General Order will be required to maintain protection of the beneficial uses of the receiving water and comply with applicable provisions of the Basin Plan. Limitations and conditions of this General Order assure protection and maintenance of the existing quality of receiving waters. However, if the Lahontan Water Board, subsequent to review of any application, finds that the impact of a discharge will not be insignificant, then authorization for coverage under this General Order will be

TENTATIVE

denied and coverage under an individual permit will be required (including preparation of an anti-degradation analysis).

3. Stringency of Requirements for Individual Pollutants

This General Order contains both technology-based effluent limitations and WQBELs for individual pollutants. These pollutants are discussed in sections V.B.2 and V.C.3 of the Fact Sheet.

This General Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs 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 WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR-SIP, which was approved by U.S. EPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this General Order and the General Objective regarding antidegradation) were approved by U.S. EPA on March 4, 2005, and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this General Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Summary of Final Effluent Limitations

The following Table summarizes the final effluent limitations for discharges from groundwater treatment systems:

Table F-4. Summary of Final Effluent Limitations[1]

Pollutant	Units	Final Effluent Limitations	
		Average Monthly	Daily Maximum
Nitrate (as N)	mg/L	--	10
Perchlorate	µg/L	--	6.0
Arsenic, Total Recoverable	µg/L	10	20
Chromium VI	µg/L	5.5	11
Benzene	µg/L	0.5	1.0
1,1-Dichloroethane	µg/L	0.5	5
1,2-Dichloroethane	µg/L	0.38	0.5
1,1-Dichloroethene	µg/L	0.5	6
cis-1,2-Dichloroethene	µg/L	0.5	6
trans-1,2-Dichloroethene	µg/L	0.5	10
Ethylbenzene	µg/L	0.5	29
Ethylene Dibromide	µg/L	0.02	0.02
Lead, Total Recoverable	µg/L	0.5	3.2
Methyl Tertiary Butyl Ether	µg/L	0.5	5
Naphthalene	µg/L	0.2	20
Tertiary Butyl Alcohol	µg/L	5	50

TENTATIVE

Pollutant	Units	Final Effluent Limitations	
		Average Monthly	Daily Maximum
Tetrachloroethene	µg/L	0.5	1.6
Toluene	µg/L	0.5	42
Total Petroleum Hydrocarbons, Gasoline Range (C_6 – C_{10})	µg/L	--	50
Total Petroleum Hydrocarbons, Diesel Range (C_{10} – C_{28})	µg/L	--	50
1,1,1-Trichloroethane	µg/L	0.5	200
1,1,2-Trichloroethane	µg/L	0.5	1.2
Trichloroethene	µg/L	0.5	5.0
Vinyl Chloride	µg/L	0.5	0.5
Xylenes, Total	µg/L	0.5	17
[1.] More stringent effluent limits may be established from specific water quality objectives listed for individual water bodies in the Basin Plan.			

F. Interim Effluent Limitations – Not Applicable

This Order does not establish interim effluent limitations or schedules for compliance with final limitations.

G. Recycling Specifications – Not Applicable

This General Order does not establish recycling specifications.

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Lahontan Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that "[t]*he numerical and narrative water quality objectives define the least stringent standards that the Regional [Water] Board will apply to regional waters in order to protect the beneficial uses.*" The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This General Order contains Receiving Surface Water Limitations based on the Basin Plan numerical and narrative water quality objectives for ammonia, bacteria, biostimulatory substances, chemical constituents, chlorine, color, dissolved oxygen, floating material, oil and grease, nondegredation of aquatic communities and populations, pH, pesticides, radioactivity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity. Water body-specific objectives have been published in Chapter 3 of the Basin Plan (Region Wide and Mono Lake), as well as in Chapter 5 for Lake Tahoe.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. 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 40 C.F.R. section 122.42. The Lahontan Water Board has also included in this General Order special provisions applicable to the Discharger. The

TENTATIVE

rationale for the special provisions contained in the General Order is provided in section VII.B, below.

40 C.F.R. 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. 40 C.F.R. section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this General Order omits federal conditions that address enforcement authority specified in 40 C.F.R. 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 General Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

a. Standard Revisions (Special Provision X.C.1.a). Conditions that necessitate a major modification of a permit are described in 40 C.F.R. section 122.62, which include the following:

When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Lahontan Water Board will revise and modify this General Order in accordance with such revised standards.

When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.

b. Reasonable Potential (Special Provision X.C.1.b). This provision allows the Lahontan Water Board to modify, or revoke and reissue, this General Order if present or future investigations demonstrate that a discharge governed by this Order is causing or contributing to excursions above any applicable priority pollutant criterion or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

c. 303(d)-Listed Pollutants (Special Provision X.C.1.c). This provision allows the Lahontan Water Board to reopen this General Order to modify existing effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Identification Evaluation (TIE) or Toxicity Reduction Evaluations (TRE). Based on the required acute and chronic WET testing specified in the MRP (Attachment E), Dischargers that exhibit acute or chronic toxicity are required to submit to the Lahontan Water Board an initial investigative TRE Work Plan within 45 days of receipt of the laboratory results showing toxicity. The TRE Work Plan generally describes the steps the Discharger intends to follow if acute toxicity is observed during accelerated acute WET testing as specified in the MRP (Attachment E). The TRE Work Plan is required in order to ensure continued compliance with WET limitations and requirements in the Order; to ensure attainment of the toxicity objective in the Basin Plan; and to ensure protection of the beneficial uses of the receiving water.

TENTATIVE

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Construction, Operation, and Maintenance Specifications – Not Applicable

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

VIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Lahontan Water Board to require technical and monitoring reports. The MRP (Attachment E) establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for treatment systems.

A. Influent Monitoring

The purpose of the required influent monitoring is to verify the efficiency of the treatment system. Specific constituents to be monitored shall be identified in the NOA. Sampling shall be conducted at a minimum according to the requirements of the MRP. Site-specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.

Influent monitoring is required for all treatment systems when discharges from a facility are occurring.

B. Effluent Monitoring

Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established by this General Order. Specific constituents to be monitored shall be identified in the NOA. Sampling shall be conducted at a minimum according to the requirements of the MRP, and frequently enough to ensure that the effluent is in compliance with the discharge specifications of the Order. Site specific conditions, such as monitoring for potential breakthrough of the treatment system, may require more frequent monitoring.

Effluent monitoring is required for average daily flow (1/Day) and total volume of wastewater (1/Day). For all other pollutants listed in the MRP, during the first 2 months of the treatment operation, effluent samples must be collected on the 1st, 4th, 28th, and 56th days of operation. During the third to sixth month, effluent sampling shall be conducted every 30 days. Thereafter, effluent samples shall be conducted every 90 days to determine compliance with the applicable effluent limitations for these constituents. These requirements are retained from Order R6T-2010-0024.

Additional pollutants of concern were added to the General Permit which include nitrate, perchlorate, arsenic, and chromium VI. Effluent monitoring requirements for these pollutants are the same as for other pollutants outlined in the paragraph above, and in the MRP (Attachment E).

TENTATIVE

C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity**. For Dischargers not covered by Order R6T-2010-0024, this Order requires 96-hour bioassay testing upon startup of the treatment facility to demonstrate compliance with the effluent limitation for acute toxicity. For discharges that exhibit acute toxicity, this Order requires accelerated monitoring until the discharge does not cause toxicity.

K. Chronic Toxicity. For Dischargers not covered by Order R6T-2010-0024, this Order requires chronic WET testing upon startup of the treatment facility in order to demonstrate compliance with the Basin Plan's narrative toxicity objective. For discharges that exhibit chronic toxicity, this Order requires accelerated monitoring until the discharge does not cause toxicity.

D. Receiving Water Monitoring

1. **Surface Water**

   Receiving water monitoring is required to demonstrate compliance with the receiving water limitations, and to assess the impacts of the discharge on the receiving water. In addition to the receiving water monitoring required for upstream and downstream locations in the MRP, specific constituents will also be identified in the NOA.

2. **Groundwater – Not Applicable**

   This General Order does not authorize discharges to groundwater. Therefore, no groundwater monitoring is required.

E. Other Monitoring Requirements

1. **Treatment Facility Startup Monitoring.** Consistent with the requirements of Order R6T-2010-0024, this Order requires Dischargers to conduct startup monitoring to confirm that the treatment unit will produce effluent that complies with the requirements of this Order.

IX. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for treatment facilities. As a step in the WDR adoption process, the Lahontan Water Board staff has developed tentative WDRs. The Lahontan Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Lahontan Water Board notified the potential Dischargers and other interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting on the Lahontan Water Board's Internet site at: http://www.waterboards.ca.gov/lohantan/public_notices/public_hearings/npdes_permits_and_wdrs.shtml

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Lahontan Water Board at the address above on the cover page of this General Order.

TENTATIVE

To be fully responded to by staff and considered by the Lahontan Water Board, written comments must be received at the Lahontan Water Board offices by 5:00 p.m. on January 28, 2016.

C. Public Hearing

The Lahontan Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: March 9-10, 2016
Time: to be determined
Location: South Lake Tahoe

Interested persons are invited to attend. At the public hearing, the Lahontan Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/lahontan/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any person affected by this action of the Lahontan Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and Cal. Code Regs., tit. 23, § 2050. The petition must be received by the State Water Board within 30 days of the date of this General Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this General Order may request the Lahontan Water Board to reconsider this General Order. To be timely, such request must be made within 30 days of the date of this General Order. Note that even if reconsideration by the Lahontan Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If the Discharger chooses to request reconsideration of this General Order or file a petition with the State Water Board, the Discharger must comply with the General Order while the request for reconsideration and/or petition is being considered. The petition must be submitted within 30 days of the Lahontan Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Lahontan Water Board by calling (530) 542-5400.

TENTATIVE

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Lahontan Water Board, reference this Facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this General Order should be directed to Tom Gavigan at tom.gavigan@waterboards.ca.gov or (530) 542-5429.

TENTATIVE

ATTACHMENT G - WATER QUALITY OBJECTIVES FOR PRIORITY POLLUTANTS

CTR No.	Priority Pollutant	CAS No.	Controlling Water Quality Criterion for Surface Waters		Maximum Reporting Level (µg/L or noted)
			Basis	Criterion Concentration (µg/L or noted)	
INORGANICS					
1	Antimony	7440360	Primary MCL	6	5
2	Arsenic	7440382	Primary MCL	10	10
15	Asbestos	1332214	CTR/Primary MCL	7 MFL	0.2 MFL >10 µm
3	Beryllium	7440417	Primary MCL	4	2
4	Cadmium	7440439	CTR	2.5	0.5
5a	Chromium III	7440473	Primary MCL	50 (1)	50
5b	Chromium VI	18540299	Primary MCL	10	10
6	Copper	7440508	CTR	4.1 (2)	2
14	Cyanide	57125	CTR	5.2	5
7	Lead	7439921	CTR	3.2 (2)	2
8	Mercury	7439976	CTR	0.050	0.0005
9	Nickel	7440020	CTR	52 (2)	50
10	Selenium	7782492	CTR	5	5
11	Silver	7440224	CTR	4.1 (2)	2
12	Thallium	7440280	CTR	1.7	1
13	Zinc	7440666	CTR	120 (2)	20
VOLATILE ORGANICS					
28	1,1-Dichloroethane	75343	Primary MCL	5	1
30	1,1-Dichloroethene	75354	CTR	0.057	0.5
41	1,1,1-Trichloroethane	71556	Primary MCL	200	2
42	1,1,2-Trichloroethane	79005	CTR	0.6	0.5
37	1,1,2,2-Tetrachloroethane	79345	CTR	0.17	0.5
75	1,2-Dichlorobenzene	95501	Primary MCL	600	2
29	1,2-Dichloroethane	107062	CTR	0.38	0.5
31	1,2-Dichloropropane	78875	CTR	0.52	0.5
101	1,2,4-Trichlorobenzene	120821	Primary MCL	5	5
76	1,3-Dichlorobenzene	541731	CTR	400	2
32	1,3-Dichloropropene	542756	Primary MCL	0.5	0.5
77	1,4-Dichlorobenzene	106467	Primary MCL	5	2
17	Acrolein	107028	CTR	320	5
18	Acrylonitrile	107131	CTR	0.059	2
19	Benzene	71432	Primary MCL	1	0.5
20	Bromoform	75252	CTR	4.3	2
34	Bromomethane	74839	CTR	48	2
21	Carbon Tetrachloride	56235	CTR	0.25	0.5
22	Chlorobenzene (mono chlorobenzene)	108907	Primary MCL	70	2
24	Chloroethane	75003	No Criteria	--	2
25	2-Chloroethyl vinyl ether	110758	No Criteria	--	1
26	Chloroform	67663	No Criteria	--	2
35	Chloromethane	74873	No Criteria	--	2
23	Chlorodibromomethane	124481	CTR	0.41	0.5
27	Dichlorobromomethane	75274	CTR	0.56	0.5
36	Dichloromethane	75092	CTR	4.7	2
33	Ethylbenzene	100414	Primary MCL	300	2
88	Hexachlorobenzene	118741	CTR	0.00075	1
89	Hexachlorobutadiene	87683	CTR	0.44	1
91	Hexachloroethane	67721	CTR	1.9	1

TENTATIVE

CTR No.	Priority Pollutant	CAS No.	Controlling Water Quality Criterion for Surface Waters		Maximum Reporting Level (µg/L or noted)
			Basis	Criterion Concentration (µg/L or noted)	
94	Naphthalene	91203	No Criteria	--	10
38	Tetrachloroethene	127184	CTR	0.8	0.5
39	Toluene	108883	Primary MCL	150	2
40	trans-1,2-Dichloroethylene	156605	Primary MCL	10	1
43	Trichloroethene	79016	CTR	2.7	2
44	Vinyl chloride	75014	Primary MCL	0.5	0.5
SEMI-VOLATILE ORGANICS					
60	1,2-Benzanthracene	56553	CTR	0.0044	5
85	1,2-Diphenylhydrazine	122667	CTR	0.04	1
45	2-Chlorophenol	95578	CTR	120	5
46	2,4-Dichlorophenol	120832	CTR	93	5
47	2,4-Dimethylphenol	105679	CTR	540	2
49	2,4-Dinitrophenol	51285	CTR	70	5
82	2,4-Dinitrotoluene	121142	CTR	0.11	5
55	2,4,6-Trichlorophenol	88062	CTR	2.1	10
83	2,6-Dinitrotoluene	606202	No Criteria	--	5
50	2-Nitrophenol	25154557	No Criteria	--	10
71	2-Chloronaphthalene	91587	CTR	1,700	10
78	3,3-Dichlorobenzidine	91941	CTR	0.04	5
62	3,4-Benzofluoranthene	205992	CTR	0.0044	10
52	4-Chloro-3-methylphenol	59507	No Criteria	--	5
48	4,6-Dinitro-2-methylphenol	534521	CTR	13.4	10
51	4-Nitrophenol	100027	No Criteria	--	10
69	4-Bromophenyl phenyl ether	101553	No Criteria	--	10
72	4-Chlorphenyl phenyl ether	7005723	No Criteria	--	5
56	Acenaphthene	83329	CTR	1,200	1
57	Acenaphthylene	208968	No Criteria	--	10
58	Anthracene	120127	CTR	9,600	10
59	Benzidine	92875	CTR	0.00012	5
61	Benzo(a)pyrene (3,4-Benzopyrene)	50328	CTR	0.0044	2
63	Benzo(g,h,i)perylene	191242	No Criteria	--	5
64	Benzo(k)fluoranthene	207089	CTR	0.0044	2
65	Bis(2-chloroethoxy)methane	111911	No Criteria	--	5
66	Bis(2-chloroethyl)ether	111444	CTR	0.031	1
67	Bis(2-chloroisopropyl)ether	39638329	CTR	1,400	10
68	Bis(2-ethylhexyl)phthalate	117817	CTR	1.8	5
70	Butyl benzyl phthalate	85687	CTR	3,000	10
73	Chrysene	218019	CTR	0.0044	5
81	Di-n-butyl phthalate	84742	CTR	2,700	10
84	Di-n-octyl phthalate	117840	No Criteria	--	10
74	Dibenzo(a,h)anthracene	53703	CTR	0.0044	0.1
79	Diethyl phthalate	84662	CTR	23,000	10
80	Dimethyl phthalate	131113	CTR	313,000	10
86	Fluoranthene	206440	CTR	300	10
87	Fluorene	86737	CTR	1,300	10
90	Hexachlorocyclopentadiene	77474	Primary MCL	50	5
92	Indeno(1,2,3-c,d)pvrene	193395	CTR	0.0044	0.05
93	Isophorone	78591	CTR	8.4	1
98	N-nitrosodiphenylamine	86306	CTR	5	1
96	N-nitrosodimethylamine	62759	CTR	0.00069	5
97	N-nitrosodi-n-propylamine	621647	CTR	0.005	5
95	Nitrobenzene	98953	CTR	17	10
53	Pentachlorophenol	87865	CTR	0.28	1

TENTATIVE

CTR No.	Priority Pollutant	CAS No.	Controlling Water Quality Criterion for Surface Waters		Maximum Reporting Level (µg/L or noted)
			Basis	Criterion Concentration (µg/L or noted)	
99	Phenanthrene	85018	No Criteria	--	5
54	Phenol	108952	CTR	21,000	50
100	Pyrene	129000	CTR	960	10
PESTICIDES – PCBs					
110	4,4-DDD	72548	CTR	0.00083	0.05
109	4,4-DDE	72559	CTR	0.00059	0.05
108	4,4-DDT	50293	CTR	0.00059	0.01
112	alpha-Endosulfan	959988	CTR	0.056	0.02
103	alpha-Hexachlorocyclohexane (BHC)	319846	CTR	00039	0.01
102	Aldrin	309002	CTR	0.00013	0.005
113	beta-Endosulfan	33213659	CTR	0.056	0.01
104	beta-Hexachlorocyclohexane (BHC)	319857	CTR	0.014	0.005
107	Chlordane	57749	CTR	0.00057	0.1
106	delta-Hexachlorocyclohexane (BHC)	319868	No Criteria	--	0.005
111	Dieldrin	60571	CTR	0.00014	0.01
114	Endosulfan sulfate	1031078	CTR	110	0.05
115	Endrin	72208	CTR	0.036	0.01
116	Endrin Aldehyde	7421934	CTR	0.76	0.01
117	Heptachlor	76448	CTR	0.00021	0.01
118	Heptachlor Epoxide	1024573	CTR	0.0001	0.01
105	Lindane (gamma-Hexachlorocvclohexane (BHC))	58899	CTR	0.019	0.02
119	PCB-1016	12674112	CTR	0.00017 (3)	0.5
120	PCB-1221	11104282	CTR	0.00017 (3)	0.5
121	PCB-1232	11141165	CTR	0.00017 (3)	0.5
122	PCB-1242	53469219	CTR	0.00017 (3)	0.5
123	PCB-1248	12672296	CTR	0.00017 (3)	0.5
124	PCB-1254	111097691	CTR	0.00017 (3)	0.5
125	PCB-1260	111096825	CTR	0.00017 (3)	0.5
126	Toxaphene	8001352	CTR	0.0002	0.5
16	2,3,7,8-TCDD (dioxin)	1746016	CTR	1.30×10^{-8}	5.00×10^{-6}

(1) Represents the Primary MCL for total chromium.
(2) Freshwater aquatic life criteria for metals are expressed as a function of the total hardness of the water body. Values displayed correspond to a total hardness of 100 mg/L.
(3) Criteria for sum of all PCBs.

TENTATIVE

ATTACHMENT H - DIOXIN AND FURAN SAMPLING

Section 3 of the State Implementation Plan requires that each NPDES discharger conduct sampling and analysis of dioxin and dibenzofuran congeners. The required number of samples for NPDES Dischargers is one upstream sample from the receiving water and one treatment system discharge sample for a total of two samples. Dischargers that were enrolled under Order R6T-2010-0024 are not required to sample for the dioxin or dibenzofuran congeners because the congeners were addressed in Order R6T-2010-0024.

Each sample shall be analyzed for the seventeen congeners listed in the table below. High Resolution GCMS Method 8290, or another method capable of individually quantifying the congeners to an equivalent detection level, shall be used for the analyses.

Sampling shall be conducted during startup of the treatment facility and all analyses shall be completed and submitted within 60 days. Sample results shall be submitted along with routine monitoring reports as soon as the laboratory results are available.

For each sample the Discharger shall report:

- The measured or estimated concentration of each of the seventeen congeners;
- The quantifiable limit of the test (as determined by procedures in Section 2.4.3, No. 5 of the SIP);
- The Method Detection Level (MDL) for the test; and
- The TCDD equivalent concentration for each analysis calculated by multiplying the concentration of each congener by the Toxicity Equivalency Factor (TEF) in the following table, and summing the resultant products to determine the equivalent toxicity of the sample expressed as 2,3,7,8-TCDD.

Congener	TEF
2,3,7,8-TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCOD	0.0001
2,3,7 ,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4, 7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0..1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6, 7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

TENTATIVE