

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
BOARD ORDER NO. R6T-2020-0015  
GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR LIMITED DOMESTIC WASTEWATER TREATMENT SYSTEMS**

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

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## COVERAGE ELIGIBILITY

### I. Eligibility Criteria

The Lahontan Water Board may enroll a person discharging wastewater for coverage under the Limited Domestic Order provided all the following criteria are met:

#### A. Site location

The facility is not located within an area prohibiting the type of discharge.

Wastewater systems located within the geographic area of an APMP, as defined in the OWTS Policy, may be covered under the Limited Domestic Order at the discretion of the Executive Officer.

#### B. Flow rate

The discharge is limited to a monthly average flow rate of 100,000 or less gallons per day of domestic wastewater.

#### C. Waste type

The treatment wastewater comes exclusively from domestic sources. Industrial waste streams are not combined with domestic waste streams.

#### D. Setback limit

The facility complies with setback requirements from wastewater treatment areas and disposal areas from domestic wells, flowing and/or ephemeral streams, lakes/reservoirs, and property lines. These setback requirements are provided in Requirements 54 through 58.

#### E. Order applicability

The Executive Officer has not determined the discharge would be better regulated by a waiver of WDRs, individual WDRs, a different general permit, an enforcement order, or a National Pollutant Discharge Elimination System (NPDES) Permit.

### II. Application Process

The application process is summarized in Attachment 2 as a report of waste discharge (ROWD). Applicants may submit their ROWD directly to the Lahontan Water Board, or they may directly upload their ROWD through a digital portal. A complete application varies by category and includes all project-specific components of the ROWD designated for each category and outlined in Attachment 2. The technical report component of the ROWD includes submittal of project background,

wastewater characterization, wastewater treatment description, and project-specific supplemental reports.

Upon review of the ROWD, Lahontan Water Board staff will determine if coverage under the Limited Domestic Order is appropriate. The Executive Officer will issue a notice of applicability (NOA) when coverage under the Limited Domestic Order has been authorized. The NOA will contain the necessary site-specific monitoring and reporting requirements.

## **REGULATORY AUTHORITY**

### **III. Purpose**

The Lahontan Water Board has recognized a need to consider nitrogen effluent limits for treatment systems with monthly average flow rate of 100,000 or less and greater than 250 gallons per day. As such, the Lahontan Water Board is issuing the General Waste Discharge Requirements for Limited Domestic Wastewater Treatment Systems (Limited Domestic Order).

The most similar, extant general permit; the State Water Resources Control Board (State Water Board) Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (Small Domestic Systems Order) considers nitrogen effluent limits; however, it does not implement a nitrogen effluent limit for all discharges regulated under the order, up to a monthly average flow rate of 100,000 or less gallons per day.

The General Waste Discharge Requirements for Limited Domestic Order will provide coverage for domestic wastewater dischargers of a monthly average flow rate of 100,000 or less gallons per day.

### **IV. Utility as General Order**

Water Code section 13263(i) states the State Water Board or a regional board may prescribe general WDRs for a category of discharges if the State Water Board or that regional board finds or determines that all the following criteria apply to the discharges in that category:

#### **A. “The discharges are produced by the same or similar operations.”**

The wastewater regulated by the Limited Domestic Order includes wastewater normally discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump

stations. Domestic wastewater does not include wastewater from industrial processes.

**B. “The discharges involve the same or similar types of waste.”**

1. Typical Flow Characteristics

Typical domestic wastewater and treated wastewater characteristics are presented in Table 8.1. Published wastewater textbooks and/or United States Environmental Protection Agency (USEPA) wastewater publications may also be used to characterize typical domestic wastewater.

**Table 8.1: Summary of Domestic Wastewater Characteristics**

Constituent	Typical Domestic Wastewater (mg/L <sup>a</sup> )	Septic Tank Influent (mg/L <sup>a</sup> )	Septic Tank Effluent (mg/L <sup>a</sup> )	Secondary Treatment Effluent (mg/L <sup>a</sup> or % <sup>q</sup> )	Equivalent to Secondary Treatment Effluent (% <sup>q</sup> )
Biochemical Oxygen Demand	200-290 <sup>b</sup>	155-286 <sup>c</sup>	140-200 <sup>d</sup>	30-45 <sup>e</sup>	65% <sup>f</sup>
Total Suspended Solids	200-290 <sup>b</sup>	155-330 <sup>c</sup>	50-100 <sup>d</sup>	30-45 <sup>e</sup>	<sup>p</sup>
Ammonia (as N)	6-18 <sup>b</sup>	4-13 <sup>c</sup>	--g,o	-- g,h	-- g,h,i
Total Nitrogen	35-100 <sup>b</sup>	26-75 <sup>c</sup>	40-100 <sup>d</sup>	50% <sup>m</sup>	43-80% <sup>k,h,i</sup>
Nitrite and Nitrate (as N)	<1 <sup>b</sup>	<1 <sup>c</sup>	--g,o	--g,h	-- g,h,i
Total Phosphorus (as P)	6-12 <sup>b</sup>	6-12 <sup>c</sup>	5-15 <sup>d</sup>	51% <sup>m</sup>	50% <sup>k,h,i</sup>
Lipids	-- g	70-105 <sup>c</sup>	16-65 <sup>r</sup>	-- g	-- g
Toxic Organics	-- g	-- g	0 to trace <sup>d</sup>	-- g	-- g
Heavy Metals	-- g	-- g	0 to trace <sup>d</sup>	-- g	-- g

a. mg/L denotes concentration in milligrams per liter.

b. Data from Table 4-3, USEPA Wastewater Treatment/Disposal for Small Communities, Manual, September 1992, EPA/625/R-92/005.

c. Data from Table 3-7, USEPA Onsite Wastewater Treatment System Manual, June 2005, EPA/625/R-00/008.

d. Data from Table 3-19, USEPA Onsite Wastewater Treatment Systems Manual, June 2005, EPA/625/R-00/008.

e. Data from Exhibit 5-6, USEPA NPDES General order Writers' Manual, December 1996, EPA-833-B-96-003.

f. Data from Section 5.2.2, USEPA NPDES General order Writers' Manual, December 1996, EPA-833-B-96-003.

g. "--" denotes data not available.

h. Value highly variable depending upon treatment technology.

i. No technology based limit established by USEPA.

k. Percent reduction from influent, wastewater impoundment structure treatment. USEPA webpage <[http://www.epa.gov/caddis/ssr\\_urb\\_ww1.html](http://www.epa.gov/caddis/ssr_urb_ww1.html)>, accessed August 29, 2014.

- m. Percent reduction from influent wastewater, activated sludge treatment. USEPA webpage <[http://www.epa.gov/caddis/ssr\\_urb\\_ww1.html](http://www.epa.gov/caddis/ssr_urb_ww1.html)>, accessed August 29, 2014.
- o. Insignificant change expected in treatment.
- p. TSS limit not appropriate for land discharge.
- q. % denotes reduction of concentration by percentage of influent concentration
- r. Data from Tables 4-10 and 4-11, USEPA Onsite Wastewater Treatment System Manual, June 2005, EPA/625/R-00/008. Table 4-11 contained small community/cluster systems, which may include non-domestic discharges.

## 2. Recreation Vehicle Discharge

Discharges from recreational vehicle (RV) holding tanks or portable toilets may contain chemicals that can pollute groundwater quality. Some commercially available products used to control holding tank/portable toilet odors may contain harmful chemicals such as formaldehyde, zinc, or phenol. The harmful chemicals can kill the bacteria in the wastewater treatment system and cause wastewater to be inadequately treated. Inadequately treated wastewater may cause additional problems such as leach field/seepage pit failure, surfacing wastewater, and potential exposure and health risks. The best and least expensive method to prevent groundwater pollution is to not use harmful chemicals by educating RV owners about the pollution hazard.

## 3. Constituents of Concern

Constituents of concern in the discharge of domestic wastewater having potential to degrade groundwater include total dissolved solids (TDS), nutrients, and pathogens (represented by coliform bacteria). Each of the wastewater constituents of concern are discussed below:

### a) Total dissolved solids

Total dissolved solids (TDS) consists of both volatile (organic) and fixed (inorganic) fractions. A varying concentration of volatile dissolved solids will exist in wastewater effluent depending upon the wastewater source and treatment technology. In a properly operated land application system, volatile dissolved solids in percolate are generally reduced to negligible concentrations (less than 2 mg/L) by filtration and biological degradation following percolation through five feet of soil.<sup>1</sup> However, fixed dissolved solids (FDS) do not degrade biologically. Elevated concentrations of FDS in land applied effluent can change soil chemistry and degrade groundwater quality.

Salinity is a measure of dissolved solids in water. Excessive salinity can reduce the beneficial uses of water. Salinity can be affected by the discharge of wastewater with elevated concentrations of TDS. TDS consists of both volatile (organic) and fixed (inorganic) fractions. In a well-

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<sup>1</sup> USEPA, Process Design Manual, Land Treatment of Municipal Wastewater, Section 4.2.1, 1981.

operated land application system, volatile dissolved solids in percolate will be reduced to negligible concentrations. The best approach for addressing salinity is through source control activities.

b) Nutrients

Nitrogen is a nutrient present in domestic wastewater at a concentration that can degrade groundwater quality. The potential for degradation depends upon the wastewater treatment method and the environment into which the wastewater effluent is discharged. Nitrogen concentration reduction is not required in every situation, such as when wastewater treatment and application is performed in a way that is protective of the beneficial uses of water.

Effluent limitations for nitrogen are contained in the Limited Domestic Order. To ensure the nitrogen control is effective, the model monitoring and reporting program (MRP), provided as Attachment 4, includes monitoring that can be implemented to verify compliance with effluent limits.

When needed, nitrogen concentrations can be reduced in a number of ways, such as nitrification, denitrification, and/or crop uptake and removal. The Limited Domestic Order requires the effluent limit for nitrogen be determined based on procedures in Attachment 3, which provides additional criteria to determine how much nitrogen control is required.

Load-based criteria for effluent nitrogen limitations provide for varied concentration limitations based on maximum design flow and contiguous lot size from which the treatment system accepts untreated wastewater. These criteria are designed to be consistent with Basin Plan and OWTS Policy limitations, are more attainable by permittees compared to static concentration limitations, and consider the aggregate effect of nitrogen discharge to a geographic area due to the portioning of allowed nitrogen (as a mass) in terms of area and available water.

c) Pathogens

Pathogens and other microorganisms are present in domestic wastewater. Wastewater treatment processes reduce the concentration of pathogens but disinfection can significantly reduce their presence. Coliform bacteria are used as a surrogate (indicator) because they are excreted by warm-blooded animals, are present in high numbers, survive in the environment like pathogenic bacteria, and are easy to detect and quantify. Disinfection of wastewater is not needed in every situation, such as when the wastewater application is performed in such a way that public contact is minimized through physical controls and/or notification.

When needed, disinfection can be performed in several ways. To ensure the disinfection is effective, the model MRP framework, provided as Attachment 4, includes monitoring that can be implemented to verify compliance with effluent limits.

d) Biodegradable organics

The presence of biodegradable organics can reduce dissolved oxygen in wastewater. The potential for reduction of dissolved oxygen is typically measure in terms of biochemical oxygen demand (BOD) and/or chemical oxygen demand (COD). Excessive BOD loading of impoundment structures may result in nuisance odors or anaerobic conditions, which are not favorable biological treatment conditions. The Limited Domestic Order includes effluent limits for BOD, and a process to determine how to apply the limits.

**C. “The discharges require the same or similar treatment standards.”**

1. Treatment Flowrates

The Limited Domestic Order limits the monthly average flow rate of 100,000 or less gallons per day; therefore, only small discharges will be eligible for coverage. Wastewater potential to degrade water quality increases with constituent loading, as a function of both constituent concentration and discharge flow rate. To ensure a similar range of potential constituent loading for sites covered by the Limited Domestic Order, constituent concentrations are limited in treatment effluent.

2. Treatment Methods

The Limited Domestic Order includes effluent limits for TDS, nitrogen, and toxicity of chemical constituents. Meeting these effluent limit requirements will determine the best practicable treatment or control (BPTC) for the wastewater constituent in question. In addition, the Limited Domestic Order provides guidance on preparing a monitoring program to ensure an effective treatment method is being used.

Wastewater treatment methods may vary by site and the available technologies are expected to evolve with time. BPTCs may include septic tanks, aerobic treatment systems, sand/media filters, package treatment plants, constructed wetlands, activated sludge, membrane biological reactors, and disinfection systems.<sup>2</sup> The level of treatment must be based upon the

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<sup>2</sup> The discussion of treatment and disposal alternatives is not intended to limit the selection of treatment available to the wastewater system designer.

wastewater quality and the receiving water quality at the wastewater disposal location.

Nitrogen effluent limit requirements vary by site characteristics. The two primary site characteristics used in the determination of the nitrogen effluent limit are the site area and local annual average precipitation. Evaluation of these site characteristics to determine the level of nitrogen control is required for all discharge flow rates greater than or equal to 250 gallons per day and regulated by the Limited Domestic Order.

### 3. Disposal Methods

Wastewater Disposal methods allowed by the Limited Domestic Order include percolation from impoundment structures, distribution via pressure dosing, evaporation, or discharge to a subsurface Disposal area such as a leach field or seepage pit. The choice of disposal method will depend upon the amount of wastewater generated and the receiving environment.

#### a) Discharge to an impoundment structure

Wastewater discharged to an impoundment structure for treatment, storage, or evaporation can result in groundwater degradation or nuisance odors. Impoundment structures can be vulnerable to damage caused by burrowing animals or deterioration of the liner. Insufficient storage capacity in impoundment structures can result in overtopping during storm events.

Overloading a wastewater impoundment structure with BOD constituents can result in nuisance odor generation. Source control of BOD constituents, additional pretreatment prior to discharge to the impoundment structure, or mechanical aeration of wastewater in the impoundment structure are typically used to prevent an impoundment structure from generating nuisance odors.

Wastewater percolated from an impoundment structure to the subsurface has the potential to degrade groundwater quality to an unacceptable extent. Reducing the amount of wastewater percolated by lining an impoundment structure with a synthetic or low permeability liner can control the percolation rate, but an alternative method of wastewater disposal may be required.

#### b) Subsurface disposal

Subsurface disposal areas may be constructed as leach fields or when conditions allow, seepage pits. If seepage pits are employed, they are often located at the end of a leach field distribution pipe to maximize shallow distribution of wastewater. Seepage pits may be considered part of the disposal system when inadequate land exists for a leach field Disposal system, other site conditions require the use of seepage pits, and



site conditions are favorable for the use of seepage pits (groundwater quality must be maintained consistent with the Limited Domestic Order).

If conditions are not favorable for traditional, below-grade leach field construction, then an at-grade or an above-grade (mound) system may be used. Typically, at-grade and above-grade systems are dosed using a dosing pump and pump controller. Dosed systems use relatively small diameter pipe to distribute the wastewater to zones within the Disposal area.

Subsurface disposal areas are planted with shallow rooted plants to prevent erosion and provide for uptake of wastewater nutrients; trees and shrubs should be removed to prevent roots from damaging the leach field. Similarly, burrowing animals can damage an at-grade or above-grade (mound) disposal system and result in leakage. Damage and subsequent leakage from burrowing animals are best controlled by completing repairs to the disposal system as soon as possible and employing preventative measures.

**D. “The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.”**

Permittees regulated under the Limited Domestic Order have similar operations and discharge similar wastewater. The discharges have certain common characteristics (e.g., similar potential impact from constituents, disposal techniques, flow rates, and treatment standards). The discharges use similar treatment methods (e.g., screening, settling, biological treatment, clarification, and application to land). A general WDR is more appropriate than individual WDRs because the similarity of the discharge types and requirements are more efficiently and consistently regulated by a single, general WDR than nearly identical individual WDRs. Therefore, the discharges are more appropriately regulated under a general WDR than individual WDRs.

## **V. Title 27 Considerations**

The wastewater treatment, storage, and disposal activities described in the Limited Domestic Order are exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste in CCR, title 27, section 20005, et seq. (Title 27). The activities are not subject to the requirements of Title 27 so long as the activity meets, and continues to meet, all preconditions listed:

*Section 20090, Subparagraph (a) Sewage—Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to CCR, title 23, division 3, chapter 9, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludge or solid*

*waste from wastewater treatment facilities must be discharged only in accordance with the applicable State Water Board promulgated provisions of this division.*

*Section 20090, Subparagraph (b) Wastewater—Discharges of wastewater to land, including but not limited to evaporation impoundment structures, percolation impoundment structures, or subsurface leach fields if the following conditions are met:*

- (1) the applicable Regional Water Board has issued WDRs, reclamation requirements, or waived such issuance;*
- (2) the discharge is in compliance with the applicable water quality control plan; and*
- (3) the wastewater does not need to be managed according to, CCR, title 22, division 4.5, chapter 11, as a hazardous waste.*

## **VI. Antidegradation Analysis**

State Water Board Resolution No. 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (hereafter the Antidegradation Policy), requires that:

*Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.*

*Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*

The Limited Domestic Order allows discharges to numerous groundwater bodies in the Lahontan Region, each with its own specific characteristics. Some of these waterbodies are considered high quality.

Limited degradation of groundwater by constituents, enumerated in Finding No. 8, associated with domestic wastewater effluent—after effective source control,

treatment, and control measures are implemented—is expected to occur in some high quality waterbodies.

This degradation is consistent with the maximum benefit to the people of the state. The economic prosperity of communities and associated industry is of maximum benefit to the people of the state.

This discharge is not expected to unreasonably affect present and anticipated beneficial uses of such water or result in water quality less than the water quality objectives. The Limited Domestic Order requires all discharges to meet effluent and receiving water concentration limits for identified constituents. Additionally, the Limited Domestic Order does not allow discharge to the authorized disposal sites containing trace elements, pollutants or contaminants, or combinations thereof, in concentrations that are toxic or harmful to humans or to aquatic life or terrestrial plant or animal life.

The Limited Domestic Order includes setbacks for wastewater treatment and disposal areas from domestic wells, flowing or ephemeral streams, lakes or reservoirs, and property lines. Setbacks provide attenuation of wastewater constituents through physical, chemical, and biological processes. The protection provided by setbacks comes from reduction in pathogens, when extant in discharge, and an opportunity for decomposition, dilution, or diffusion of chemical pollutants before these constituents enter a groundwater system.

The setbacks provided in the Limited Domestic Order are based on existing water quality protective setbacks, including those from CCR, title 22, section 60310, the California Well Standards, the OWTS Policy, the California Plumbing Code, and commonly imposed setbacks by regulatory agencies.

The cumulative impact on water quality from centralized wastewater treatment systems will be substantially less than numerous, concentrated individual wastewater systems due to the technology, energy, water recycling, and waste management advantages inherent to centralized treatment facilities. However, the Lahontan Water Board recognizes the infeasibility for a facility to construct and maintain a centralized wastewater treatment system or transport domestic wastewater to a centralized system based on financial resources. The economic prosperity of communities and associated industry is of maximum benefit to the people of the state.

When a discharge covered under the Limited Domestic Order may be to high quality waters, the permittee needs to demonstrate implementation of BPTC necessary to maintain the highest water quality consistent with the maximum benefit to the people of the state. Meeting the effluent limit requirements will determine the BPTC for the wastewater constituent in question. Typical methods described in Finding No. 8. and illustrated in Attachment 4. The efficacy of this BPTC will be tracked using discharge monitoring and reporting and following required minimum setbacks.

The Limited Domestic Order includes discharge monitoring and reporting plan requirements for all treatment systems. These required plans allow the Lahontan Water Board to monitor the continued capability of the treatment system to maintain effluent limits for constituents of concern found in the wastewater.

## **VII. Water Code Section 13241 Considerations**

Water Code section 13263 states each regional board must consider the provisions of section 13241 when prescribing waste discharge requirements. Factors to be considered include, but are not limited to, the following:

### **A. “Past, present, and probable future beneficial uses of water.”**

The Limited Domestic Order identifies past, present, and probable future beneficial uses of groundwater in Attachment 1. The effluent limitations in the Limited Domestic Order are based on water quality objectives and will not adversely affect present or probable future beneficial uses of groundwater, including municipal and domestic supply, agricultural supply, and industrial service supply, and fresh water recharge.

### **B. “Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.”**

The Lahontan Region includes groundwater basins with diverse water quality conditions. Maps of significant groundwater basins are included as part of the Basin Plan. The water quality of some groundwater basins are considered to be high quality, while others are impacted by concentrations of constituents. The geology and soils of the Lahontan Region have been shaped by a variety of processes, and are correspondingly diverse. The Lahontan Region is generally in a rain shadow; however precipitation amount can be high (up to 70 inches) at higher elevations. The varied topography, soils, and microclimates of the Lahontan Region support a corresponding variety of plant and animal communities.

### **C. “Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.”**

The requirements of the Limited Domestic Order will result in the protection of existing and probable future beneficial uses to the maximum benefit to the people of the State of California. The requirements of the Limited Domestic Order will also result in the protection of water quality to continue to meet the standards prescribed in applicable existing policies.

The effluent limit requirements in the Limited Domestic Order include a mass per area limit for nitrogen in treated wastewater discharge. By considering nitrogen mass per area (area load), instead of mass per volume (concentration), the total amount of nitrogen that can be applied within a geographic area, such as a watershed or groundwater basin, is capped. Therefore, the load approach helps

coordinate the effect of nitrogen from treated wastewater discharge on water quality within an area.

**D. “Economic considerations.”**

The Lahontan Region encompasses approximately one quarter of the state’s land mass and serves approximately two percent of the state’s population. The extremely low population density in some rural areas may result in economic infeasibility for construction and maintenance of a centralized wastewater treatment system. Technology inherent to OWTS better aligns with the economic reality of small flowrate permittees, compared to the technology typically deployed in a centralized system.

**E. “The need for developing housing within the region.”**

The Limited Domestic Order would not directly affect housing availability in the region. However, it is possible that new facilities may be built in areas without existing sewer systems, possibly generating job growth which may indirectly impact the need for developing housing within the region.

**F. “The need to develop and use recycled water.”**

The Limited Domestic Order does not preclude the discharge of recycled water for irrigation, however it does not authorize coverage for such activities. Permittees would need to seek coverage under a separate Order to use recycled water.

## **VIII. Human Right to Water**

Water Code section 106.3 establishes a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and directs state agencies to consider this policy when adopting regulations pertinent to water uses described in the section, including the use of water for domestic purposes.

These WDRs implement effluent limitations and requirements to meet established receiving water objectives and maintain designated beneficial uses of water.

## **IX. California Environmental Quality Act**

The Limited Domestic Order is intended to cover both new/expanded and existing limited domestic systems. The Lahontan Water Board considered the environmental impacts associated with the adoption of the Limited Domestic Order and prepared an Initial Study in accordance with CCR, title 14 section 15063. Analysis in the Initial Study and early consultation with responsible and trustee agencies did not identify any significant impacts on the environment. The Lahontan Water Board adopted a Negative Declaration on March 12, 2020.

## **X. Technical and Monitoring Reports**

Water Code section 13267 provides the Lahontan Water Board with the authority to require technical and monitoring reports. These technical reports are required by the Limited Domestic Order, the notice of applicability (NOA), and the MRP. The Monitoring and Reporting Program is necessary to determine compliance with the conditions of the Limited Domestic Order and to determine the discharges impacts, if any, on groundwater. As such, the burden, including costs, of this monitoring bears a reasonable relationship to the need for that information and the benefits to be obtained from that information.

## **XI. Public Notification**

The Lahontan Water Board has notified interested agencies and persons of its intent to prescribe waste discharge requirements in the Limited Domestic Order, has provided them with an opportunity to submit written comments, and provided notice of a public hearing. A notice of the availability of a draft general order was also provided by posting a copy of the tentative WDRs to the Lahontan Water Board internet website.

## **XII. Public Hearing**

The Lahontan Water Board, in a public hearing, heard and considered all comments pertaining to this matter.

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IT IS HEREBY ORDERED pursuant to Water Code sections 13260, 13263, and 13267 and in order to meet the provisions contained in division 7 of the Water Code and regulations and polices adopted thereunder, all dischargers subject to this Order must comply with the following:

### **PROVISIONS**

1. The requirements prescribed herein do not authorize the commission of any act causing damage to the property of another, or protect the permittee from liabilities under federal, state, or local laws. The Limited Domestic Order does not convey any property rights or exclusive privileges and does not create a vested right to continue to discharge wastewater.
2. The permittee must comply with all the conditions of the Limited Domestic Order. Any noncompliance with the Limited Domestic Order constitutes a violation of the Porter-Cologne Water Quality Control Act and/or Basin Plan and may be grounds for an enforcement action.
3. The Limited Domestic Order neither relieves the permittee from responsibility to obtain other necessary local, state, or federal permits nor prevents imposition of additional standards, requirements, or conditions by any other agency.

4. The prohibitions, requirements, limitations, and provisions of the Limited Domestic Order are severable. If any provision of the Limited Domestic Order is held invalid, the remainder of the Limited Domestic Order must not be affected.
5. Coverage of the Limited Domestic Order may be terminated or modified for cause including, but not limited to, any of the following:
  - a. Violation of any of the terms or conditions contained in the Limited Domestic Order.
  - b. Obtaining the Limited Domestic Order by misrepresentation, or failure to disclose fully all relevant facts.
  - c. Change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge.
  - d. Material change in either the character, location, or volume of discharge

## REQUIREMENTS

Each row of the requirement tables contains the requirement number in the first column and the requirement text in the second column.

### I. Prohibitions

Requirement Number	Requirement Text
1	Creation of pollution or threatened pollution, contamination, or nuisance as defined by section 13050 of the Water Code is prohibited.
2	The discharge of waste that causes violation of any numeric or narrative water quality objective contained in the Basin Plan is prohibited.
3	The discharge of waste in violation of and waste discharge prohibitions in the Basin Plan is prohibited.
4	The discharge of waste classified as hazardous (Cal. Code Regs., tit 22, § 66261 is prohibited.
5	The discharge of any waste to surface waters or surface water drainage courses is prohibited.

Requirement Number	Requirement Text
6	<p>Bypass or overflow of treated or untreated waste is prohibited. The Lahontan Water Board and/or the Executive Officer may take enforcement action against the permittee for bypass except when one of the following two cases occurs:</p> <p>a. Unavoidable and/or unscheduled bypass as defined by the combination of the following two bullet points:</p> <ul style="list-style-type: none"> <li>• Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.</li> <li>• There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities or retention of untreated waste. This does not apply to bypass that occurs during normal periods of equipment downtime or preventative maintenance, which reasonable engineering judgment should account for in the design.</li> </ul> <p>b. Scheduled bypass as defined by the combination of the following four bullet points</p> <ul style="list-style-type: none"> <li>• Bypass is required for essential maintenance to assure efficient operation.</li> <li>• Neither effluent nor groundwater limitations are exceeded.</li> <li>• The permittee notifies the Executive Officer 10 days in advance.</li> </ul> <p>The prohibition against discharge to surface water is not violated.</p>
7	The use of cesspools is prohibited.
8	The discharge of treated wastewater except to the disposal point(s) authorized in the NOA is prohibited.
9	The discharge of waste to land not owned, operated, or controlled by the permittee is prohibited, except as described and documented in a waste management plan and approved by the Lahontan Water Board's Executive Officer (Executive Officer) in a NOA letter.

## II. Water Quality and Flow Limits

### A. Effluent Limits

Requirement Number	Requirement Text
10	Wastewater discharged to all authorized disposal sites must not contain trace elements, pollutants or contaminants, or combinations thereof, in concentrations that are toxic or harmful to humans or to aquatic or terrestrial plant or animal life.
11	Wastewater discharged to all authorized disposal sites must not contain constituent concentrations in excess of the limits specified by the determination process described in Attachment 3. The concentration for each site must be a calculated value no greater than 70 milligrams per liter and no less than 10 milligrams per liter.



Requirement Number	Requirement Text
12	<p>Wastewater treated using activated sludge, MBR, or similar (not including single-family aerobic treatment units) treatment technology and discharged to all authorized disposal sites must not contain constituent concentrations in excess of the following limits:</p> <ul style="list-style-type: none"> <li>• BOD<sub>5</sub> at 30 milligrams per liter as quarterly average and 45 milligrams per liter as maximum</li> <li>• TSS at 30 milligrams per liter as quarterly average and 45 milligrams per liter as maximum</li> </ul>
13	<p>Wastewater treated using an impoundment structure or trickling filter (not including single-family recirculating sand filters) treatment technology and discharged to all authorized disposal sites must not contain a BOD<sub>5</sub> concentration in excess of 90 milligrams per liter.</p>

### B. Receiving Water Limits

Requirement Number	Requirement Text
14	<p>The permittee must take all reasonable steps to minimize any adverse impact to waters of the state resulting from noncompliance with the Limited Domestic Order.</p>
15	<p>Groundwater designated as MUN must not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of CCR, title 22:</p> <ul style="list-style-type: none"> <li>• Inorganic Chemicals, Table 64431-A of section 64431</li> <li>• Organic Chemicals, Table 64444-A of section 64444</li> <li>• SMCLs–Consumer Acceptance Limits, Table 64449-A of section 64449</li> <li>• SMCLs – Consumer Acceptance Ranges, Table 64449-B of section 64449</li> </ul> <p>This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.</p>
16	<p>Groundwater designated as AGR must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).</p>
17	<p>Groundwater designated as MUN must not contain concentrations of radionuclides in excess of the limits specified in CCR, title 22, section 64442, Table 64442, and section 64443, Table 64443 which are incorporated by reference into the Limited Domestic Order. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.</p>

Requirement Number	Requirement Text
18	<p>Groundwater must not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect the beneficial uses. For groundwater designated as MUN, at a minimum, concentrations must not exceed adopted, including future changes as the changes take effect, secondary maximum contaminant levels specified in CCR, title 22</p> <ul style="list-style-type: none"> <li>• SMCLs–Consumer Acceptance Limits, Table 64449-A of section 64449</li> <li>• SMCLs – Consumer Acceptance Ranges, Table 64449-B of section 64449</li> </ul>

**C. Flow Rate Limits**

Requirement Number	Requirement Text
19	<p>Wastewater entering the treatment system must not exceed the design capacity as restated in the NOA. The flow rate of wastewater discharged to the headworks must not exceed a monthly average flow rate of 100,000 or less gallons per day.</p>
20	<p>A permittee whose wastewater flow rate has been increasing, or is projected to increase, must estimate when the flow rate will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections must be made annually, in January, based on the previous 3 years average dry weather flow rates, peak wet weather flow rates, and total annual flow rates, as applicable. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the permittee must notify the Executive Officer according to the monitoring and reporting program (MRP).</p>

**III. Siting, Design, Construction, Operation, and Maintenance**

**A. General**

Requirement Number	Requirement Text
21	<p>The siting, design, construction, operation, and maintenance of the wastewater system must comply with the requirements of the Basin Plan.</p>
22	<p>The facility must be sited, designed, constructed, operated, and maintained consistent with the information provided in the ROWD.</p>
23	<p>For all systems within 200 feet of the boundaries of a centralized wastewater district or regional service area, the permittee must demonstrate an attempt to connect to the centralized system and provide evidence that connection to the system was not approved or infeasible.</p>

Requirement Number	Requirement Text
24	The permittee must ensure that all site operating personnel are familiar with the contents of the wastewater system NOA and the Limited Domestic Order. A copy of the Limited Domestic Order, the NOA, and technical reports required by the Limited Domestic Order (not including previously submitted monitoring reports) must be kept at the wastewater treatment facility for reference by operating personnel.
25	The permittee must limit access to the wastewater system to authorized persons.
26	<p>The permittee must permit representatives of the Lahontan Water Board and/or the State Water Board, upon presentation of credentials, to:</p> <ul style="list-style-type: none"> <li>• Enter premises where wastes are treated, stored, or disposed of, and facilities in which any records are kept.</li> <li>• Copy any records required by the Limited Domestic Order.</li> <li>• Inspect at reasonable hours, monitoring equipment required by the Limited Domestic Order.</li> <li>• Sample, photograph, and/or video record any discharge, waste material, waste treatment system, or monitoring device</li> </ul>
27	The permittee must pay an annual fee to the State Water Board in accordance with the fee schedule for each fiscal year (CCR, title 23, § 2200). Fees are based on threat to water quality and complexity ratings, will be determined based on information in the ROWD, and subject to revision by the State Water Board. Annual invoices are issued by the State Water Board for the state fiscal year (July 1 to June 30).
28	<p>Permittees who want to terminate coverage under the Limited Domestic Order must submit a Notice of Termination (NOT). The following requirements apply to the termination process:</p> <ul style="list-style-type: none"> <li>• The NOT must include the reporting items contained in Requirement 20.</li> <li>• The permittee must remain enrolled under the Limited Domestic Order until notified of enrollment termination approval by the Executive Officer.</li> <li>• Lahontan Water Board staff may inspect the facility prior to enrollment termination approval.</li> <li>• The permittee is responsible for any permit fees associated the Limited Domestic Order until enrollment termination approval is received.</li> </ul> <p>The permittee and/or landowner(s) remain responsible for any water quality degradation that results from the facility after being notified of enrollment termination approval by the Executive Officer</p>

**B. Licensed Professionals**

<b>Requirement Number</b>	<b>Requirement Text</b>
29	For systems with a design flow rate greater than 3,500 gpd, the ROWD must be prepared by a California licensed professional civil engineer. For systems with a design flow rate less than 3,500 gpd, the technical report must be prepared by a California licensed professional engineer or other appropriately licensed professional (e.g., a California licensed professional geologist or California registered environmental health specialist).
30	The as-built condition of the treatment system must be approved by a California licensed professional civil engineer.
31	Service to the treatment system (repairs, pumping, etc.) must be performed only by a California licensed General Engineering (A), Plumbing (C-36), or Sanitation System (C-42) contractor. Health and Safety Code sections 117400–117450 require septic tank pumping service providers to be registered by the jurisdiction where work is performed. Such service providers may be exempt from the state contractor's licensing requirements if meeting the exceptions described in the Business & Professions Code section 7044 and/or 7048.
32	The technical report; required as part of the ROWD and outlined, in Attachment 2; must be prepared by a California licensed professional civil engineer.
33	Wastewater facilities must be supervised and operated by persons possessing a wastewater treatment operator certificate of the appropriate grade pursuant to CCR, title 23, division 3, chapter 26.

**C. Maintenance and Changes**

<b>Requirement Number</b>	<b>Requirement Text</b>
34	The permittee must maintain in good working order and operate as efficiently as possible any treatment facility component, treatment control system, and monitoring device which have been installed to achieve compliance with the Limited Domestic Order and the NOA.
35	The permittee must retain maintenance records for a minimum of three years. Maintenance records must be retained for any treatment facility component, treatment control system, and monitoring device which have been installed to achieve compliance with the Limited Domestic Order and the NOA.
36	The permittee must maintain a record of all service activities for a minimum of five years. At a minimum, the record must include the date, nature of service, service company name, and service company state contractor license number.

Requirement Number	Requirement Text
37	<p>Before making material change in the character, location, or volume of discharge, the permittee must notify the Executive Officer. Material change includes, but is not limited to, any of the following:</p> <ul style="list-style-type: none"> <li>• Increase in area or depth used for waste disposal beyond that specified in the NOA.</li> <li>• Significant change in disposal method, location, or volume (e.g., change from subsurface disposal to percolation inside an impoundment)</li> </ul> <p>The Executive Officer may require that a ROWD be submitted.</p>
38	<p>At least <b>90 days</b> prior to termination or expiration of any lease, contract, or agreement involving disposal areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with the Limited Domestic Order, the permittee must notify the Executive Officer in writing of the situation and of what measures have been taken or are being taken to assure full compliance with the Limited Domestic Order and the NOA.</p>

#### D. Emergency Preparedness Response

Requirement Number	Requirement Text
39	<p>The fact that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the Limited Domestic Order must not be a defense for the permittee's violations of the Limited Domestic Order.</p>
40	<p>For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of the Limited Domestic Order, the permittee must employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.</p>
41	<p>An emergency response plan must be submitted with the ROWD.</p>
42	<p>The emergency response plan must be complied with in its entirety, must be maintained at the treatment facility, and must be presented to the Lahontan Water Board staff upon request or as required by the NOA.</p>

Requirement Number	Requirement Text
43	<p>A permittee who wishes to establish the affirmative defense of an upset in an action brought for noncompliance must demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that the following are true:</p> <ul style="list-style-type: none"> <li>• An upset occurred, and the cause(s) of the upset can be identified.</li> <li>• The permitted wastewater system was being properly operated at the time of the upset.</li> <li>• The permittee submitted notice of the upset as required in Requirement Number 110.</li> </ul> <p>The permittee complied with any remedial measures required by the Limited Domestic Order, the NOA, or direction from the Executive Officer. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.</p>

#### E. Best Practicable Treatment or Controls (BPTCs)

Requirement Number	Requirement Text
44	<p>Treatment and disposal of wastewater must demonstrate BPTC for wastewater. BPTC must be demonstrated by compliance with all of the following:</p> <ol style="list-style-type: none"> <li>1. Compliance with the Limited Domestic Order</li> <li>2. Compliance with the NOA, which specifies the following (at a minimum):</li> <li>3. Site-specific flow limit(s) based on reported design flowrate.</li> <li>4. Site-specific wastewater system treatment and disposal methods.</li> <li>5. Applicable effluent limits.</li> </ol>
45	<p>Nuisance odors must not be perceivable beyond the property line of the wastewater treatment facility.</p>
46	<p>Public contact with wastewater must be deterred through such means as fences, signs, and other acceptable alternatives.</p>
47	<p>The discharge must always remain within the disposal area designated in the NOA.</p>

#### F. RV Wastewater

Requirement Number	Requirement Text
48	<p>Owners and/or operators of domestic wastewater systems that accept wastes from RVs or other mobile waste systems must ensure that such wastes do not deleteriously affect the wastewater system or adversely affect beneficial uses of groundwater with holding tank additives that may contain, among other chemicals, formaldehyde, zinc, and/or phenol.</p>

<b>Requirement Number</b>	<b>Requirement Text</b>
49	Use of holding tank chemicals must be discouraged by the wastewater system owner/operator.
50	The sale or provision of such additives by the permittee or operators of RVs served by the permittee's wastewater facility must be determined to be evidence of noncompliance with this section.
51	To the maximum extent possible, RV, portable toilet, or similar wastes must not be discharged to a septic tank or functionally equivalent system (e.g., Imhoff tank) without subsequent additional treatment (e.g., aerated pond, recirculating sump filter, etc.) prior to disposal.
52	Septic tanks must be pumped when any one of the following conditions exists: <ul style="list-style-type: none"> <li>• The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment</li> <li>• The scum layer is within 3 inches of the outlet device.</li> <li>• The sludge layer is within 8 inches of the outlet device.</li> </ul>
53	Septage disposal must only be to a legal disposal site that has been issued WDRs by a Regional Water Board allowing septage disposal. Septage must be handled in such a manner as to prevent its reaching surface waters or watercourses.

### **G. Setbacks**

<b>Requirement Number</b>	<b>Requirement Text</b>
54	The wastewater system must be sited and/or designed to prevent flood waters from the 100-year flood (annual one percent probability) event or stormwater runoff from the 100-year storm event from inundating the wastewater surface impoundment structures, if applicable, or otherwise rendering the wastewater system inoperable.
55	Open-air surface impoundment structures containing disinfected water must comply with the following setbacks, unless the site is already existing and not causing nuisance conditions: <ul style="list-style-type: none"> <li>• 100 feet for domestic wells</li> <li>• 100 feet for flowing stream or ephemeral stream drainages</li> <li>• 50 feet for property lines</li> <li>• 200 feet for lakes and reservoirs</li> </ul>

Requirement Number	Requirement Text
56	<p>Open-air surface impoundment structures containing undisinfecting water must comply with the following setbacks, unless the site is already existing and not causing nuisance conditions:</p> <ul style="list-style-type: none"> <li>• 150 feet for domestic wells</li> <li>• 150 feet for flowing stream or ephemeral stream drainages</li> <li>• 50 feet for property lines</li> <li>• 200 feet for lakes and reservoirs</li> </ul>
57	<p>Enclosed treatment/storage systems structure must comply with the following setbacks, unless the site is already existing and not causing nuisance conditions:</p> <ul style="list-style-type: none"> <li>• 50 feet for domestic wells</li> <li>• 50 feet for flowing stream or ephemeral stream drainages</li> <li>• 5 feet for property lines</li> <li>• 50 feet for lakes and reservoirs</li> </ul>
58	<p>Subsurface infiltrative disposal systems must comply with the following setbacks, unless the site is already existing and not causing nuisance conditions:</p> <ul style="list-style-type: none"> <li>• 150 feet for domestic wells</li> <li>• 100 feet for flowing stream or ephemeral stream drainages</li> <li>• 5 feet for property lines</li> <li>• 200 feet for lakes and reservoirs</li> </ul>

#### IV. Surface Impoundment Structures (Impoundments)

##### A. Freeboard

Requirement Number	Requirement Text
59	<p>Freeboard must always be maintained in impoundments to provide adequate storage capacity and prevent wastewater spills. Freeboard must be measured vertically from the lowest elevation of the impoundment berm to the impoundment water surface. If freeboard is less than two feet, the permittee must immediately implement the contingency plan contained in the Spill Prevention and Emergency Response Plan (Requirement 48 of the Limited Domestic Order).</p>
60	<p>Surface impoundment structures must have capacity to accommodate wastewater, design seasonal precipitation, ancillary inflow/infiltration (I/I), and wind driven waves. Design seasonal precipitation capacity must be maintained as the depth(s) equivalent to the combined 25-year, 24-hour storm runoff volume captured by the impoundment(s) and two feet of freeboard in the impoundment(s).</p>



### B. Containment

Requirement Number	Requirement Text
61	Surface water impoundments (e.g., evaporation or storage ponds) must be designed, constructed, operated, and maintained to meet a hydraulic conductivity of $1.0 \times 10^{-6}$ centimeters per second or less. A monitoring device under the lowest point of the pond must be installed to provide assurance of the earliest possible detection or prevention of a release from the pond.
62	Burrowing animals active in areas that may compromise the integrity of an impoundment containment must be promptly controlled and repairs to the containment completed as soon as possible.
63	An erosion control program must be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.

### C. Mosquitoes

Requirement Number	Requirement Text
64	Weeds must be minimized through control of water depth, a shoreline synthetic liner, harvesting, or herbicides.
65	Dead algae, vegetation, and debris must be removed from the water surface.
66	Coordination with the local mosquito abatement or vector control district to supplement the measures described above in cases where other methods are infeasible

## V. Sludge/Solids Producing Systems

### A. Sludge Management Plan

Requirement Number	Requirement Text
67	For facilities generating sludge, a Sludge Management Plan must be submitted as part of the ROWD.
68	The Sludge Management Plan must be complied in its entirety, must be maintained at the treatment facility, and must be presented to the Lahontan Water Board staff upon request or as required by the NOA.
69	The Executive Officer must be notified of any changes in an approved Sludge Management Plan at least <b>90 days</b> in advance of the proposed change.
70	Modifications to a Sludge Management Plan deemed part of an emergency action must be noticed to the Executive Officer within five days of disposal with a rationale for the emergency modification.

**B. storage**

<b>Requirement Number</b>	<b>Requirement Text</b>
71	Treatment and storage of sludge must be confined to the wastewater system property and must be conducted in a manner that precludes infiltration of waste constituents into soil in a mass or at concentrations that will violate the groundwater limitations of the Limited Domestic Order.
72	Any storage of residual sludge and solid residue at the wastewater treatment system must be temporary, and the waste must be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or at concentrations that will exceed the Basin Plan receiving water limits.

**C. Disposal**

<b>Requirement Number</b>	<b>Requirement Text</b>
73	Sludge and solid waste must be removed from screens, sumps, tanks, and impoundment structures as needed to ensure optimal plant operation.
74	Residual sludge and solid residue must be disposed in a manner approved by the Executive Officer and consistent with the Consolidated Requirements for Treatment, Storage, Processing, or Disposal of Solid Waste pursuant to CCR, title 27, division 2. Removal for further treatment, disposal, or reuse at disposal sites operated in accordance with valid WDRs issued by the State Water Board or Lahontan Water Board will satisfy this specification.
75	Use and disposal of biosolids must comply with the USEPA Part 503 Biosolids Rule (CFR title 40, part 503).

**VI. Specific Treatment Structures****A. Septic Tanks**

<b>Requirement Number</b>	<b>Requirement Text</b>
76	To the maximum extent possible, RV, portable toilet, or similar wastes must not be discharged to a septic tank or functionally equivalent system (e.g. Imhoff tank) without subsequent additional treatment (e.g., aerated impoundment structure, recirculating sand filter, etc.) prior to disposal.
77	Septic tanks must be pumped when any one of the following conditions exists: <ul style="list-style-type: none"> <li>• The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.</li> <li>• The scum layer is within 3 inches of the outlet device.</li> <li>• The sludge layer is within 8 inches of the outlet device.</li> </ul>

### B. Aerobic Treatment Units

Requirement Number	Requirement Text
78	<p>Aerobic treatment units must be pumped when any one of the following conditions exists:</p> <ul style="list-style-type: none"> <li>• The combined thickness of sludge and scum exceeds one-third of the tank depth of the final settling tank or interferes with the operation of the system (mixed liquor aerator solids must not exceed the manufacturer's recommendation).</li> <li>• The scum layer is within 3 inches of the outlet device.</li> <li>• The sludge layer is within 8 inches of the outlet device.</li> </ul>

## VII. Subsurface Disposal Systems

### A. Surfacing

Requirement Number	Requirement Text
79	Wastewater must not surface in any location of the infiltrative disposal area.

### B. Siting

Requirement Number	Requirement Text
80	Subsurface disposal systems must hold in reserve land area for possible future 100-percent replacement of the subsurface disposal system or establish an equivalent contingency that is approved by the Executive Officer and described in the NOA. If less than 100-percent replacement area was previously permitted under existing individual WDRs, the minimum reserve area previously permitted must be maintained.
81	Separation of the disposal system(s) must be equal to or greater than two feet, except for seepage pits, which must be equal to or greater than 10 feet.

### C. Maintenance

Requirement Number	Requirement Text
82	All new or rehabilitated disposal areas associated with effluent pressure distribution systems (pressure-dosed systems) must be equipped with cleanouts or a flushing system to allow solids to be removed from distribution pipes and orifices when needed.
83	Deep rooted plants such as trees or shrubs must be removed as needed from a subsurface disposal system area to prevent damage to the dispersal system by roots.

Requirement Number	Requirement Text
84	Burrowing animals active in areas that may result in wastewater leakage from an at-grade or above grade (mound) disposal system must be promptly controlled and repairs to the disposal system completed as soon as possible, but no later than within two weeks and before the next precipitation event.

## VIII. Monitoring

### A. General

Requirement Number	Requirement Text
85	The permittee must retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by the Limited Domestic Order, and records of all data used to complete the ROWD for the Limited Domestic Order. Records must be maintained for a minimum of 3 years from the date of the sample, measurement, report, or application. This period may be extended due to any unresolved litigation regarding this discharge or when requested by the Executive Officer.

### B. Sampling

Requirement Number	Requirement Text
86	Unless otherwise approved by the Executive Officer, all analyses must be conducted at a laboratory certified for the analyses by the DDW Environmental Laboratory Accreditation Program. If a certified laboratory is not available to the permittee, analyses performed by a noncertified laboratory will be accepted provided an acceptable Quality Assurance/Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and must be available for inspection by Lahontan Water Board staff. The Quality Assurance/Quality Control Program must conform to USEPA guidelines or to procedures approved by the Lahontan Water Board.
87	The permittee must comply with the MRP issued with the NOA, and any future revisions, as specified by the Executive Officer. A framework for developing an MRP relevant to either discharge category is provided as Attachment 4. However, the Executive Officer may modify or replace the MRP for site-specific treatment and disposal conditions when issuing the NOA or revise the MRP when deemed necessary.

<b>Requirement Number</b>	<b>Requirement Text</b>
88	The permittee must complete any additional investigations or monitoring to demonstrate beneficial uses of water are protected and antidegradation requirements are satisfied including, but not limited to, evaluation of the wastewater system's treatment performance, groundwater monitoring, or additional sampling to characterize the wastewater discharge as required by the Executive Officer.
89	The duration of the sampling period must be in accordance with the monitoring and reporting program.
90	Treated wastewater samples must be collected downstream of all treatment works where a sample representative of the discharge can be obtained prior to disposal. In some cases, it may be necessary to collect samples for different analyses from different sampling locations (e.g. immediately downstream of a disinfection system for pathogens).
91	The method of compositing must be reported with the results.

### **C. System Failures**

<b>Requirement Number</b>	<b>Requirement Text</b>
92	The permittee must complete accelerated or additional monitoring deemed necessary by the Executive Officer when determining the nature and impact of any noncompliant action or incident.
93	All noncompliance issues must be reported with the next regularly scheduled monitoring report in addition to any other reporting requirements.
94	All monitoring and analysis instruments and devices used by the permittee to fulfill the prescribed MRP must be properly maintained and calibrated as recommended by the manufacturer to ensure their continued accuracy.
95	The permittee must construct all groundwater monitoring wells to meet or exceed the standards stated in Department of Water Resources' Bulletins 74-81, 74-90, and subsequent revisions unless deviation is approved by the Lahontan Water Board's staff or local well construction enforcing agency and must comply with the reporting provisions for wells pursuant to Water Code section 13751.

## **IX. Reporting**

### **A. General**

<b>Requirement Number</b>	<b>Requirement Text</b>
96	The permittee must furnish, within a reasonable time, any information the Lahontan Water Board's staff may request to determine whether cause exists for modifying, revoking, reissuing, or terminating the permittee's coverage under the Limited Domestic Order.

Requirement Number	Requirement Text
97	The permittee must furnish to the Lahontan Water Board's staff upon request, copies of records required to be kept by the Limited Domestic Order.
98	The permittee must provide electronic submittals of reports or data as specified by the Lahontan Water Board. Contact and mail address information is available on the NOA or at: <a href="https://www.waterboards.ca.gov/lahontan/about_us/contact_us.html">https://www.waterboards.ca.gov/lahontan/about_us/contact_us.html</a>
99	<p>All reports submitted in response to the Limited Domestic Order, including monitoring reports, must be signed by a person identified below:</p> <ul style="list-style-type: none"> <li>• For a corporation: by a principal executive officer of at least the level of senior vice-president.</li> <li>• For a partnership or sole proprietorship: by a general partner or the proprietor.</li> <li>• For a municipality, state, federal, or other public agency: by either a principal Executive Officer or ranking elected or appointed official.</li> <li>• A duly authorized representative of a person described above if all the following are completed: <ul style="list-style-type: none"> <li>○ The authorization is made in writing by a person described above.</li> <li>○ 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 waste management unit, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)</li> <li>○ The written authorization is submitted to the Lahontan Water Board.</li> </ul> </li> </ul>

Requirement Number	Requirement Text
100	<p>Any person signing a document under this section must make the following certification:</p> <p><i>“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”</i></p>
101	<p>In the event of any change in control or ownership of the facility or wastewater disposal areas, the permittee must notify the succeeding owner or operator of the existence of the Limited Domestic Order by letter, a copy of which must be immediately forwarded to the Executive Officer.</p>
102	<p>At least <b>90 days</b> prior to ending coverage under the Limited Domestic Order, a permittee must submit an NOT as described in Requirement 20. The NOT must contain the following:</p> <ul style="list-style-type: none"> <li>• Permittee and site information contained within the NOA.</li> <li>• Date the site will cease discharging.</li> <li>• How the site will be decommissioned to prevent discharges that degrade water quality.</li> <li>• Any proposed construction activities, including a project implementation schedule.</li> <li>• A final MRP report in accordance with Requirement 91.</li> <li>• Certification, by the permittee, of the following: <ul style="list-style-type: none"> <li>○ Request for enrollment termination</li> <li>○ The date the site will cease discharge</li> </ul> </li> </ul> <p>Discharges associated with the previously authorized activities will cease on the specified date.</p>

### B. Sampling and Analysis Plan (SAP)

Requirement Number	Requirement Text
103	<p>Within <b>90 days</b> of the issuance of an NOA containing an MRP, the permittee must prepare and implement a written sampling and analysis plan (SAP) to assure compliance with the terms of the Limited Domestic Order and the NOA.</p>

<b>Requirement Number</b>	<b>Requirement Text</b>
104	Anyone performing sampling on behalf of the permittee must be familiar with the SAP.
105	SAPs must address the need for sample filtration and how filtration will be accomplished.
106	When sampling groundwater or liquid waste, the chemical constituents available to migrate must be considered in the following two ways: <ul style="list-style-type: none"> <li>• At facilities where the waste only threatens groundwater, samples must be filtered prior to chemical preservation, digestion, or analysis for some analytes.</li> <li>• At facilities where overland flow of liquid waste to surface water is possible, the total constituent concentrations may be available for movement and analyses must be conducted on unfiltered samples.</li> </ul>
107	At a minimum, the SAP must describe the following: <ul style="list-style-type: none"> <li>• Sample chain-of-custody procedures and documentation.</li> <li>• Sampling locations.</li> <li>• Sampling frequencies.</li> <li>• Sample handling/preservation procedures.</li> <li>• Analytical methods.</li> <li>• Sample containers, preservatives, and holding times.</li> <li>• For groundwater monitoring, well purging and field methods.</li> </ul>
108	The SAP must be maintained at the treatment facility and must be presented to the Lahontan Water Board staff upon request or as required by the NOA.

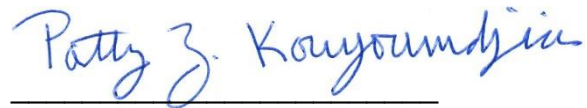
### C. System Failures

<b>Requirement Number</b>	<b>Requirement Text</b>
109	If the permittee does not comply, or will be unable to comply, with a requirement related to effluent quality, pond freeboard, flow rate, or bypass or overflow issues (i.e., noncompliance), then the permittee must notify the Lahontan Water Board staff by telephone. Phone numbers for Lahontan Water Board offices may be found on the NOA or on the internet at the Lahontan Water Board website.
110	Notification of noncompliance must occur as soon as the permittee or its agents have knowledge of such noncompliance or potential for noncompliance, and the permittee must confirm this notification in writing within 10 days. The written notification must state the date, time, nature, cause of noncompliance, immediate response action, and a schedule for corrective actions.



Requirement Number	Requirement Text
111	<p>In the event of any unauthorized release of untreated wastewater from the permittee's treatment system that causes, or probably will cause, a discharge to a water of the state, the permittee must notify Regional Water Quality Control Board (i.e., notification of unauthorized discharge) as soon as possible, but no later than two (2) hours after becoming aware of the release. The phone number for reporting these releases of sewage to the Lahontan Water Board offices may be found on the NOA or on the internet at the Lahontan Water Board website.</p>
112	<p>The permittee must, at a minimum, include the following information in a notification of unauthorized discharge:</p> <ul style="list-style-type: none"> <li>• The location, date, and time of the release.</li> <li>• The water body that received or will receive the discharge.</li> <li>• An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification.</li> <li>• If ongoing, the estimated flow rate of the release at the time of notification.</li> <li>• The name, organization, phone number, and email address of the reporting representative.</li> </ul>
113	<p>In the event of a wastewater containment failure, the permittee must immediately notify California Governor's Office of Emergency Services (CalOES). Notification must be provided as soon as possible and when the notice can be provided without substantially impeding cleanup or other emergency measures pursuant to Water Code section 13271. A written report to the Executive Officer must be submitted within 10 days of the failure describing the cause of the failure and how a recurrence will be prevented. Such a failure must be promptly corrected in accordance with the requirements of the Limited Domestic Order.</p>

I, Patty Z. Kouyoumdjian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on March 12, 2020.



PATTY Z. KOUYOUMDJIAN  
EXECUTIVE OFFICER

Attachments:            Attachment 1: Background for General Order  
                                 Attachment 2: Report of Waste Discharge  
                                 Attachment 3: Nitrogen Effluent Limit Determination  
                                 Attachment 4: Monitoring and reporting program framework

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
BOARD ORDER NO. R6T-2020-0015  
GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR LIMITED DOMESTIC WASTEWATER TREATMENT SYSTEMS  
ATTACHMENT 1: BACKGROUND FOR GENERAL ORDER**

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**I. Report of Waste Discharge**

Water Code section 13260(a) requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system and that could affect the quality of the waters of the state, file a report of the discharge, referred to as Report of Waste Discharge (ROWD), to obtain coverage under Waste Discharge Requirements (WDRs) Program or a waiver of WDRs Program.

**II. Definitions**

Water Code section 13050(d) defines “person”, “waste”, “regional board”, “waters of the state”, and other applicable terms.

For the purposes of The Limited Domestic Order, the following terms are defined as:

**7-day median** shall be calculated as the median concentration of the results for the last 7 calendar days. If only one sample is collected within a 7-day period, then that one sample becomes the 7-day median value.

**Average annual rainfall** means the average of the annual amount of precipitation for a location over a year. This can be estimated using the nearest National Weather Service station for any contiguous 30-year time segment preceding an application. For example, a suitable data set used to make a determination in 2020 would be 1981 to 2010.

**Bypass** refers to the intentional diversion of waste streams from any portion of a treatment facility.

**Biosolids** refers to sludge that has undergone treatment and testing to qualify for reuse pursuant to the USEPA Part 503 Biosolids Rule (40 CFR, part 503).

**Cesspool** refers to, but is not limited to, an excavation or device that allows wastewater infiltration into the soil without treatment.

**Composite sample** (unless otherwise specified) is a combination of individual samples collected over the specified sampling period.

**Constituents of emerging concern (CECs)** are defined as chemicals in personal care products, pharmaceuticals including antibiotics, antimicrobials; industrial,

agricultural, and household chemicals; hormones; food additives; transformation products, inorganic constituents; and nanomaterials.

**Daily maximum concentration** is the highest measurement recorded for any grab or composite sample collected during a day in a calendar month.

**Day** is the mean solar day of 24 hours beginning at mean midnight and taken as a calendar day.

**Domestic wastewater** means wastewater with a measured strength less than high-strength wastewater and is the type, or like the type, of wastewater normally discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.

**Ephemeral stream drainage** denotes a surface water drainage feature that flows only after rain or snowmelt and does not have enough groundwater seepage (baseflow) to maintain a condition of flowing surface water. The drainage is measured from a line that defines the limit of the ordinary highwater mark. Irrigation canals are not considered ephemeral streams drainage features. The ephemeral stream is a “losing stream” (discharging surface water to groundwater) at the proposed wastewater system site.

**Flow-weighted sample** is collected at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow. The duration of the sampling period shall be specified in the monitoring and reporting program.

A **flowing stream** is measured from the ordinary highwater mark.

**Grab sample** is an individual sample collected in less than 15 minutes.

**Headworks** refers to the facilities where wastewater enters a wastewater treatment plant, which may include bar screens, comminutors, a wet well, and pumps.

**Industrial wastewater** refers to wastewater generated by industrial sources and kept separate from domestic wastewater. Examples include high-strength discharges from restaurants or commercial food processing plants in excess of 900 milligrams per liter of BOD, cannabis cultivation or manufacturing practices, maintenance yards, manufacturing facilities, and other commercial operations.

**Limited Domestic Order** refers to the General Waste Discharge Requirements for Limited Domestic Wastewater Treatment Systems.

**Monthly average concentration** is the arithmetic mean of measurements recorded during a calendar month. If only one sample is collected in a calendar month, then that sample measurement is the monthly average concentration.

**Monthly daily average discharge (or flowrate)** is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number is reported in gallons per day or million gallons per day.

**Onsite wastewater treatment systems (OWTS)** means individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include “graywater” systems pursuant to Health and Safety Code section 17922.12.

**Ordinary highwater mark** is established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation type, presence of litter or debris, or other appropriate means.

**Permittee** (also known as **Discharger**) refers to a person or entity discharging or proposing to discharge waste.

**Residual sludge** means sludge that will not be subject to further treatment at the wastewater system.

**Severe property damage** means substantial physical damage to property, damage to the treatment facilities that 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.

**Septage** is the liquid, solid, and semisolid material that results from wastewater treatment in a septic tank, which must be pumped, hauled, treated, and disposed of properly pursuant to Code of Federal Regulations title 40, part 503.

**Sludge** means the solid, semisolid, and liquid residues removed during primary, secondary, or other wastewater treatment processes.

**Solid residue** refers to grit and screenings generated during preliminary treatment.

**Single-family or equivalent dwelling unit (EDU)** means a structure that is usually occupied by just one household or family and is expected to generate an average of 250 gallons per day of wastewater.

**Surface impoundment structures** refer to structures impounding water on the ground surface and include treatment, storage, and percolation ponds; constructed wetlands; and land application areas that eliminate runoff via an impoundment structure.

**Time-weighted sample** is collected at equal time intervals, with a maximum interval of one hour.

**Upset** means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the permittee. 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 action.

**Wastewater system** means the collection system, treatment equipment, pumping stations, treatment ponds, clarifiers, sand/media filters, disinfection systems, recycled water systems (including distribution systems), storage ponds, and other systems associated with the collection, treatment, storage, and disposal of wastewater.

**Wastewater treatment plant** refers to any of the following, but does not include onsite sewage treatment systems as defined in Water Code section 13290:

- *“A facility owned by a state, local, or federal agency and used in the treatment or reclamation of sewage or industrial wastes;”*
- *“A privately-owned facility used in the treatment or reclamation of sewage or industrial wastes, and regulated by the Public Utilities Commission pursuant to sections 216 and 230.6 of, and chapter 4 (commencing with section 701) of part 1 of division 1, of the Public Utilities Code; or”*
- *“A privately-owned facility used primarily in the treatment or reclamation of sewage, and for which the State Water Board or a Regional Water Board has issued waste discharge requirements.”*

### III. OWTS Policy

State Water Resources Control Board (State Water Board) adopted the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy<sup>1</sup>) on June 19, 2012 and the OWTS Policy became effective May 13, 2013. The OWTS Policy established a statewide, risk-based, tiered approach for regulation and management of installations and replacements of OWTS with disposal of domestic strength and, in limited instances, high strength wastewater generated from domestic sources. The OWTS Policy does not address nondomestic wastewater.

The OWTS Policy set the level of performance and protection expected from OWTS and recognized the effectiveness of local permitting agencies. The OWTS Policy (synopsis of each tier below) also provides a waiver of the requirements to submit a

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<sup>1</sup> The OWTS Policy can be found here:

<[https://www.waterboards.ca.gov/water\\_issues/programs/owts/board\\_adopted\\_policy.shtml](https://www.waterboards.ca.gov/water_issues/programs/owts/board_adopted_policy.shtml)>

report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from OWTS covered by the OWTS Policy.

**A. Tier 0: Existing OWTS**

Described in OWTS Policy Section 6, this applies to existing OWTS that are properly functioning systems that do not need corrective action and are not near an impaired water body subject to TMDL, local agency's special provisions, or located within 600 feet of a water body listed on OWTS Policy Attachment 2. The maximum flow rate for this tier is 10,000 gallons per day.

**B. Tier 1: Low Risk New or Replacement OWTS**

Described in OWTS Policy Sections 7 and 8, this tier applies to new or replacement OWTS that comply with conservative siting and design standards described in the OWTS Policy and when a Local Agency Management Program (LAMP) has not been approved by the applicable Regional Water Board. The maximum flow rate for this tier is 3,500 gallons per day.

Section 7.5 of the OWTS Policy describes the minimum horizontal distance that any component or dispersal system of an OWTS can be sited from property lines, domestic wells, flowing surface water bodies, and lakes or reservoirs as follows:

*7.5.1 5 feet from parcel property lines and structures;*

*7.5.2 100 feet from water wells and monitoring wells, unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer;*

*7.5.3 100 feet from any unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distances are allowed, if recommended by a geotechnical report prepared by a qualified professional.*

*7.5.4 100 feet from springs and flowing surface water bodies where the edge of that water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent migration of wastewater to the water body;*

*7.5.5 200 feet from vernal pools, wetlands, lakes, ponds, or other surface water bodies where the edge of that water body is the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies;*

*7.5.6 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet.*

*7.5.7 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.*

*7.5.8 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.*

Described in OWTS Policy Section 7.8, there is a density requirement applicable to OWTS in Tier 1. The average density for any subdivision of property is restricted to the allowable densities in Table 3.1 for a single-family dwelling unit, or its equivalent, for those units that rely on OWTS.

**Table III.1: Allowable Average Densities per Subdivision under Tier 1 (of the OWTS Policy)**

<b>Average Annual Rainfall (in/yr)</b>	<b>Allowable Density (ac/EDU)</b>
0 ≤ and ≤15	2.5
15 < and ≤20	2
20 < and ≤25	1.5
25 < and ≤35	1
35 < and ≤40	0.75
40 <	0.5

**C. Tier 2: Local Agency Management Program (LAMP) for New or Replacement OWTS**

Described in OWTS Policy Section 9, this applies to new or replacement OWTS that comply with the siting and design standards in an approved LAMP. LAMPs are developed by local agencies based on local conditions. Siting and design standards may differ from Tier 1 standards. The maximum flow rate for this tier is 10,000 gallons per day.

**D. Tier 3: Advanced Protection Management Program (APMP)**

Described in OWTS Policy Section 10, this applies to OWTS located near impaired surface water bodies that are subject to a Total Maximum Daily Load (TMDL) implementation plan, a special provision contained in a LAMP, or is



located within 600 feet of a water body listed on OWTS Attachment 2. The maximum flow rate for this tier is 10,000 gallons per day.

#### **E. Tier 4: OWTS Requiring Corrective Action**

Described in OWTS Policy Section 11, this applies to OWTS that are not properly functioning (failing). Failure may be indicated by surfacing effluent, wastewater backing up in plumbing fixtures, OWTS component/piping structural failure, or significant groundwater or surface water degradation.

### **IV. Small Domestic Systems General Order**

State Water Resources Control Board (State Water Board) Order WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems (Small Domestic Order) was adopted by the State Water Board on September 23, 2014. The Small Domestic Order regulates the discharges from small domestic wastewater treatment and disposal systems, up to a monthly average flow rate of 100,000 or less gallons per day. It does not include coverage for industrial wastewater discharges, nor does it establish nitrogen effluent limits on facilities with monthly average flow rate of 20,000 or less gallons per day.

### **V. Recycled Water General Requirements**

The State Water Board General Water Reclamation Requirements for Recycled Water use Order WQ 2016-0068-DDW (WRR WQ-2016-0068) was adopted by the State Water Board on June 7, 2016. The intent of the State Water Board, as stated in Findings 34 and 35 of WRR WQ-2016-0068, was to adopt statewide, streamlined permitting consistent with the State Water Board's Recycled Water Policy for use of recycled water meeting the Uniform Statewide Recycle Criteria. Finding 34 also states the State Water Board's intention that regulatory coverage under an existing Regional Water Board general order or conditional waiver for nonpotable uses of recycled water be terminated by the applicable Regional Water Board within three (3) years after adoption of WRR WQ-2016-0068. Given these intentions, all permittees who produce recycled water for nonpotable use and desire to either use the recycled water or provide it to other entities will need to enroll under the WRR WQ 2016-0068.

### **VI. California Plumbing Code**

The 2016 California Plumbing Code (Plumbing Code) contains setbacks for private sewage disposal systems in Appendix H as Table H 101.8. This table is applicable as a requirement for disposal of sewage, defined in the Plumbing Code as liquid waste containing animal or vegetable matter in suspension or solution and that may include liquids containing chemicals in solution.

## **VII. California Well Standards**

The Division of Water Resources has established horizontal separation distances for water well siting from sources of domestic and industrial contamination. The California Well Standards, part II, section 8 (California Well Standards) lists the minimum horizontal separation from municipal wells and known or potential sources of pollution or contamination including but not limited to sanitary, storm, and industrial sewers, septic tanks and leach fields, and sewage and industrial waste ponds. Separation distances established by the California Well Standards are not adequate for every condition. Determination of the safe separation distance for individual wells requires detailed evaluation of existing and future site conditions. The California Well Standards were used as a starting basis for some of the well setbacks identified in the Limited Domestic Order.

## **VIII. Basin Plan**

The Water Quality Control Plan for the Lahontan Region, March 31, 1995 (the Basin Plan), references State Water Board plans and policies, contains beneficial use designations and water quality objectives for waters of the Lahontan Region, contains programs of implementation to achieve water quality objectives, and provides a strategy for protecting beneficial uses of surface and ground waters throughout the Lahontan Region. The Limited Domestic Order implements the Basin Plan, including amendments adopted since 1995.

### **A. Discharge Prohibitions**

Water Code section 13243 grants the Regional Water Board the authority to specify certain conditions or areas where the discharge of waste, or certain types of waste will not be permitted. These prohibitions and exemptions exist in Section 4.1 of the Basin Plan.

### **B. Beneficial Uses**

Existing and potential beneficial uses of groundwater for named groundwater basins in the Lahontan Region include municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), fresh water recharge (FRSH), aquaculture (AQUA) and wildlife habitat (WILD). Groundwaters that are not part of the named basins have the MUN designation in accordance with the Basin Plan and with the State Water Board's Sources of Drinking Water Policy contained in State Water Board Resolution No. 88-63.

Chapter 2 in the Basin Plan may be consulted for the beneficial use designations for any specific groundwater basin.

### **C. Chemical Constituents**

The Basin Plan requires, "Ground waters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses." Waters designated as MUN shall not contain concentration of chemical constituents in

excess of the maximum contaminant level (MCL) or secondary maximum contaminant levels (SMCL) as specified in Title 22 of the California Code of Regulations and incorporated into the Basin Plan.

#### **D. Volumetric Loading and Treatment**

Chapter 4.4 of the Basin Plan requires that new individual waste disposal systems that have a gross density greater than 2 single-family equivalent dwelling units (EDUs) per acre of contiguous lot size implement secondary-level treatment. Equivalent dwelling units are defined as a unit of measure used for sizing a development based on the amount of waste generated from that development. The value used in these criteria is 250 gallons per day per EDU and is viewed as equivalent to the discharge from a single-family dwelling.

### **IX. Climate Change Response**

Resolution No. R6T-2019-0277 presents the Lahontan Water Board's Climate Change Mitigation and Adaptation Strategy (Strategy) and Policy Statements that identify key resource areas addressed by the Strategy. The Strategy defines the Lahontan Water Board's role in protecting water quality and beneficial uses within the context of California's climate change efforts. The Strategy identifies select actions within the Lahontan Water Board's regulatory authority that may be implemented to protect key resources areas that are vulnerable to weather and climate induced impacts expected throughout the Lahontan Region. Policy Statements included in Resolution No. R6T-2019-0277 identify the key resource areas as follows: (1) Protection of Wetlands, Floodplains, and Headwaters; (2) Infrastructure Protection; (3) Protection of Groundwater Quality and Supply; and (4) Protection of Headwater Forests and Promoting Fire Resilient Landscapes.

Waste discharge requirements prescribed in Limited Domestic Order are consistent with Resolution R6T-2019-0277, and in particular to Policy Statement No. 1: Protection of Wetlands, Floodplains, and Headwaters, and Policy Statement No. 2: Protection of Groundwater Quality and Supply.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
BOARD ORDER NO. R6T-2020-0015  
GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR LIMITED DOMESTIC WASTEWATER TREATMENT SYSTEMS  
ATTACHMENT 2: REPORT OF WASTE DISCHARGE**

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**BACKGROUND**

The ROWD outline presented below is intended to provide an organized list of information needed from applicants. Not all elements of the ROWD outline are applicable to each category of the Limited Domestic Order. Applicants should review the outline and the description of each category, located within the findings of the Limited Domestic Order, to determine which elements are needed for their facility.

Organizing the technical report as described in this attachment will allow streamlined review of the facility information, thus expediting the permitting process, and may reduce the time required to prepare an NOA.

Contacting Lahontan Water Board Staff to discuss the project before preparing the ROWD is encouraged and may help with the ROWD development process. Providing as much of the report of waste discharge (report requirements are contained in Attachment 2-B) in rough draft form, as possible, will allow Lahontan Water Board staff to provide guidance in completing the application-required documents.

**OUTLINE**

**I. Fee**

**II. Form 200**

**III. Facility Information**

**A. Wastewater system overview**

<b>ROWD Number</b>	<b>ROWD Element</b>
1.	Provide a site location map <ul style="list-style-type: none"><li>• Location of wastewater system buildings</li><li>• Wastewater treatment system components</li><li>• Groundwater wells</li><li>• Surface water bodies</li></ul>
2.	Provide a site plan
3.	Provide the site location <ul style="list-style-type: none"><li>• Assessor's Parcel Number(s)</li><li>• GPS Coordinates (Latitude and Longitude)</li></ul>

ROWD Number	ROWD Element
4.	Provide receiving water information <ul style="list-style-type: none"> <li>• Depth to groundwater</li> <li>• Existing baseline concentrations of all constituents of concern, if known, for determining effluent limits</li> </ul>
5.	Describe the source water to the facilities being served by the wastewater system

**B. Service area overview**

ROWD Number	ROWD Element
6.	Describe the proximity of the wastewater system to the boundaries of a centralized wastewater district or regional service area. <ul style="list-style-type: none"> <li>• If nearby, then discuss why connection to the regional system is infeasible.</li> <li>• If within the boundary, then provide written documentation of an attempt to connect and provide evidence that connection to the system was not approved or infeasible</li> </ul>
7.	Describe the wastewater collection system. <ul style="list-style-type: none"> <li>• Age and condition of collection system.</li> <li>• Piping construction and layout (show on the site location map).</li> <li>• Lift stations and backup pumping systems.</li> <li>• Failure warning system.</li> <li>• Inflow and infiltration (I/I) estimates (and any control that is necessary).</li> <li>• Maintenance of collection system and spill response.</li> </ul>
8.	Describe storm water collection system <ul style="list-style-type: none"> <li>• Storm water collection area (show on map).</li> <li>• Storm water disposal area in relation to wastewater disposal area.</li> <li>• Storm water disposal permit (if needed).</li> </ul>

**IV. Wastewater Characterization and Treatment**

**A. Wastewater type**

ROWD Number	ROWD Element
9.	Describe the activities generating wastewater (e.g., retirees, families, recreational vehicle [RV], cannabis cultivation, industrial activity, institution, etc.). If RV waste is allowed, describe educational and institutional controls in place to minimize the potential for deleterious RV waste constituents to be discharged to the wastewater system.

ROWD Number	ROWD Element
10.	Describe wastewater flow rate <ul style="list-style-type: none"> <li>• How the flow rate was determined.</li> <li>• Any special events or seasonal variations that cause high wastewater flow rates or other sources of wastewater (e.g. swimming pool filter, potable water treatment backwash water, well attended festivals, etc.).</li> </ul>

**B. Wastewater characterization.**

ROWD Number	ROWD Element
11.	Characterize untreated wastewater influent quality <ul style="list-style-type: none"> <li>• Biochemical oxygen demand (BOD)</li> <li>• Total dissolved solids (TDS)</li> <li>• Nitrogen</li> <li>• Electrical conductivity</li> <li>• Sodium</li> <li>• Chloride</li> <li>• Specific constituents of concern as needed based on site activities (including holding tank chemicals, if RV waste is treated by the system)</li> <li>• Characterize wastewater for potential constituents designated in CCR, title 27, section 20005, et seq (Title 27).</li> </ul>
12.	Characterize (predicted) treated wastewater effluent quality <ul style="list-style-type: none"> <li>• BOD</li> <li>• TDS</li> <li>• Nitrogen</li> <li>• Specific constituents of concern as needed.</li> </ul>

**C. Wastewater treatment system overview**

ROWD Number	ROWD Element
13.	Provide a wastewater treatment system schematic

<b>ROWD Number</b>	<b>ROWD Element</b>
14.	<p>Describe waste interception, pretreatment, and treatment</p> <ul style="list-style-type: none"> <li>• Activities (e.g. septic tank effluent pump system, grease traps, screening, comminution, grit removal, remove settleable/floatable matter, etc.).</li> <li>• Technologies (e.g., activated sludge, membrane biological reactor, aerated lagoon, oxidation ditch, Imhoff tank, septic tank, etc.) with engineered design capacity in description.</li> <li>• Residuals storage, treatment, and disposal.</li> <li>• Disinfection equipment.</li> <li>• Size and location of equipment (e.g. septic tank volume, package treatment plant, membrane biological reactor, pond size include acreage and storage capacity, pond liners, and number and horsepower of aerators, etc.).</li> </ul>
15.	<p>Describe storage facilities (if applicable)</p> <ul style="list-style-type: none"> <li>• The size and location of wastewater storage ponds, including a map showing all the ponds and describe them as lined or not.</li> <li>• The materials, age, and condition of any liners.</li> </ul>
16.	Describe proposed disposal method for treated effluent (e.g., leach field, percolation pond, etc.).
17.	Describe proposed disposal area: acreage, surrounding land use, depth to groundwater, and the proximity of drainage ways, surface waters, and municipal, industrial, or agricultural wells.
18.	<p>Describe planned operation and maintenance</p> <ul style="list-style-type: none"> <li>• Routine operation and maintenance procedures.</li> <li>• Treatment operator training and qualifications requirements.</li> <li>• Contingency plans for repairs/spills/treatment issues.</li> </ul>

#### **D. Disposal system water balance**

<b>ROWD Number</b>	<b>ROWD Element</b>
19.	Calculate safety factors to avoid overtopping or surfacing
20.	<p>Calculate precipitation rate using rainfall depth duration frequency data, such as from the following:</p> <ul style="list-style-type: none"> <li>• the Department of Water Resources Internet web page: <a href="http://ferix.water.ca.gov/webapp/precipitation/">http://ferix.water.ca.gov/webapp/precipitation/</a></li> <li>• the NOAA Atlas 14 Volume 6: <a href="https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html">https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html</a></li> </ul>
21.	Calculate evaporation rate using local evapotranspiration rates
22.	Provide a copy of the report, if a site-specific investigation is used.

ROWD Number	ROWD Element
23.	Report disposal area infiltration values <ul style="list-style-type: none"> <li>• Site-specific percolation tests</li> <li>• Application rates</li> <li>• Other sources as needed to support the calculation</li> <li>• Information sources used.</li> </ul>

**V. SUPPLEMENTAL REPORTS**

**A. Erosion Control Plan**

The erosion control plan is only required for facilities containing a surface impoundment structure.

ROWD Number	ROWD Element
24.	Describe maintenance monitoring and associated repairs of any irregularities around the perimeter of the water surface.

**B. Sludge Management Plan**

The sludge management plan is only required for sludge generating treatment systems and describes handling and disposal of sludge.

ROWD Number	ROWD Element
25.	Estimate the amount of sludge and scum that will be generated.
26.	Characterize solids using EPA Toxicity Characteristic Leaching Procedure (TCLP) and California Total Threshold Limit Concentration (TTLC) before disposing offsite.
27.	Describe cleaning of digesters or storage vessels and the treatment and disposal of the residuals.
28.	Describe how sludge, scum, and supernatant will be stored and disposed of to protect groundwater quality.
29.	Describe the treatment and storage requirements, if sludge will be subject to further treatment.
30.	Describe how that will be performed to prevent nuisance odors, prevent vectors, and protect groundwater quality, if drying of residuals is planned.

**C. Emergency Response Plan**

The emergency response plan is required for all systems and describes operation and maintenance activities to prevent accidental and/or unauthorized discharges of wastewater, and to effectively respond to such releases, minimizing the environmental impact.



<b>ROWD Number</b>	<b>ROWD Element</b>
31.	Describe wastewater treatment equipment, operational controls, flow measurement and calibration procedures, and treatment system schematic including valve/gate locations.
32.	Describe sludge handling equipment, operational controls, and disposal procedures.
33.	Describe collection system cleaning and maintenance, equipment tests, and alarm functionality tests to minimize the potential for wastewater spills originating in the collection system or headworks. For collection systems subject to State Water Board Order No. 2006-0003-DWQ, reports prepared to comply with the State Water Board Order No. 2006-0003-DWQ satisfy this requirement.
34.	Specify emergency response procedures including emergencies such as power outage, severe weather, flooding, or inadequate freeboard (for systems with surface impoundment structures). This includes an equipment and telephone list for contractors/consultants, emergency personnel, and equipment vendors.
35.	Specify coordination procedures with fire, police, California Governor's Office of Emergency Services (CalOES), Lahontan Water Board, and local county health department personnel.

#### **D. QA/QC Document**

The QA/QC document is required for any surface impoundment structure and includes construction and operation specifications for correctly installing liners to contain any leaks.

<b>ROWD Number</b>	<b>ROWD Element</b>
36.	Describe subgrade preparation
37.	Specify inspection frequencies for liner construction
38.	Describe testing specifications for both destructive testing and non-destructive liner testing
39.	Describe qualifications for the construction inspector.

#### **E. Protected Species Document**

<b>ROWD Number</b>	<b>ROWD Element</b>
40.	Demonstrate the project will not adversely impact species identified as a candidate, sensitive, or special status species (protected species) in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife (USFW).
41.	Provide verification from the California Natural Diversity Data Base (CNDDB), or equivalent.

**F. Cultural Resources Document**

<b>ROWD Number</b>	<b>ROWD Element</b>
42.	Demonstrate that a California Historical Resources Information System (CHRIS) records search, or equivalent, occurred.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
BOARD ORDER NO. R6T-2020-0015  
GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR LIMITED DOMESTIC WASTEWATER TREATMENT SYSTEMS  
ATTACHMENT 3: NITROGEN EFFLUENT LIMIT DETERMINATION**

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**DETERMINATION METHODOLOGY**

The General Waste Discharge Requirements for Discharges to Land by Limited Domestic Systems Order (Limited Domestic Order) includes nitrogen concentration effluent limits to protect beneficial uses of groundwater and surface water. The discharger is responsible for providing adequate information to enable Lahontan Regional Water Quality Control Board (Lahontan Water Board) staff to evaluate the need for additional treatment.

**I. Calculation variables**

**A. Nitrogen effluent concentration limit (C)**

The nitrogen effluent concentration limit (C) for the project is calculated from the unadjusted nitrogen effluent concentration ( $C_{unadjusted}$ ) multiplied by the precipitation adjustment factor (F), as illustrated by Equation 3.1.

**Equation 3.1: Calculation of C**

$$C \left[ \frac{mg}{L} \right] = F [unitless] \times C_{unadjusted} \left[ \frac{mg}{L} \right]$$

**B. Precipitation adjustment factor (F)**

The value for F is sourced from Table 3.1.

The precipitation adjustment factor allows for consideration of the diluting properties of precipitation. It is derived from allowable EDU densities outlined in Table 1 of section 7.8 of the OWTS Policy. The available precipitation adjustment factor values are compiled in Table 3.1 with coinciding precipitation ranges acting as the determinate of the appropriate factor. The local annual average precipitation rate, defined in the Limited Domestic Order, is the average of the annual amount of precipitation for a location over a year as measured by the nearest National Weather Service station for any contiguous 30-year time segment preceding an application.

**Table 3.1: Precipitation adjustment factors for consideration of the diluting properties of precipitation.**

Average Annual Precipitation (in/yr)	Precipitation Adjustment Factor (F) (unitless)
0 ≤ and ≤15	0.2
15 < and ≤20	0.25
20 < and ≤25	0.33
25 < and ≤35	0.5
35 < and ≤40	0.67
40 <	1

### C. Unadjusted nitrogen effluent concentration ( $C_{unadjusted}$ )

The value for  $C_{unadjusted}$  is calculated from the design monthly average daily discharge flowrate (Q), the project contiguous parcel area (A), the regional equivalent dwelling unit (EDU) loading rate (R), and conversion constant, as illustrated in Equation 3.2.

#### Equation 3.2: Calculation of $C_{unadjusted}$

$$C_{unadjusted} \left[ \frac{mg}{L} \right] = \frac{R \left[ mg * \frac{gpd}{ac * L} \right] \times A [ac]}{Q [gpd]}$$

### D. EDU loading rate (R)

The value for R is calculated as 35,000 milligrams of nitrogen per acre per day with a volume conversion (gallons per liter)

The EDU loading rate comes from multiplying the baseline unit discharge flowrate ( $q_{baseline}$ ) and baseline nitrogen effluent concentration ( $C_{baseline}$ ) together, as illustrated in Equation 3.3. Sections I.E and I.F contain explanations for how the baseline unit discharge flowrate and baseline nitrogen effluent concentration were derived.

#### Equation 3.3: Calculation of R

$$R \left[ mg * \frac{gpd}{ac * L} \right] = q_{baseline} \left[ \frac{gpd}{ac} \right] \times C_{baseline} \left[ \frac{mg}{L} \right]$$

### E. Baseline unit discharge flowrate ( $q_{baseline}$ )

The value for  $q_{baseline}$  is taken as 500 gallons per day per acre.

The baseline unit discharge flowrate is based on the maximum allowable EDU density, measured on an EDU per acre basis, and an assumed typical treatment flowrate. The findings of the Limited Domestic Order recognize EDU densities contained in both the Water Quality Control Plan for the Lahontan Region, adopted on March 31, 1995 (Basin Plan) and the State Water Resource Control Board's Onsite Wastewater Treatment Systems Policy (OWTS Policy). The Basin

Plan, Chapter 4.4, specifies a density of two EDUs per acre, which translates to one EDU per half acre and assumes a typical treatment flowrate of 250 gallons per day per EDU. Additionally, Table 3.1 of the Limited Domestic Order, incorporated as a reference to Table 1 in section 7.8 of the OWTS Policy, correlates precipitation ranges with allowable EDU densities, which is discussed later in this attachment. The maximum density allowed by Table 1 is one EDU per half acre. Given that the Basin Plan and OWTS Policy both specify the same maximum EDU density, that density is taken as an environmentally protective baseline EDU density for this evaluation process. Based on this density of one EDU per half acre, the 250 gallons per day per EDU flowrate provides a baseline unit flowrate of 500 gallons per day per acre.

**F. Baseline nitrogen effluent concentration ( $C_{\text{baseline}}$ )**

The value for  $C_{\text{baseline}}$  is taken as 70 milligrams per liter.

The baseline nitrogen effluent concentration is based on typical domestic wastewater effluent concentration contained in Table 8.1 of the order, sourced from the United States Environmental Protection Agency (USEPA) and treatment systems where secondary-level treatment is not required.

**II. Minimum and maximum effluent limits**

Applying the precipitation adjustment factor adjusts effluent limits within a range by considering local climate. No combination project parcel area, design monthly average daily discharge flowrate, and annual precipitation may result in a nitrogen limit less than 10 or greater than 70 milligrams per liter of total nitrogen. Any adjusted effluent concentrations calculated to be greater than 70 or less than 10 milligrams per liter will be capped at 70 and 10 milligrams per liter, respectively, to determine the nitrogen effluent limit. These limits are based upon US EPA drinking water maximum contaminant level of 10 milligrams per liter of nitrate as nitrogen and typical OWTS effluent concentrations.

## DETERMINATION CALCULATION

This attachment provides a stepwise method to determine designed project eligibility for coverage by the Limited Domestic Order. When maximum design flow and/or treatment area are constrained, the following method shall be used to determine the maximum allowable concentration to meet effluent limitations.

### I. Calculation steps

#### A. Determine the following parameters

1. A in acres,
2. local average annual precipitation in inches of liquid water, and
3. Q in gallons per day.

#### B. Calculate or look up the approximate unadjusted nitrogen effluent concentration

Calculate  $C_{unadjusted}$  using Equation 3.2.

$$C_{unadjusted} \left[ \frac{mg}{L} \right] = \frac{R \left[ mg * \frac{gpd}{ac * L} \right] \times A[ac]}{Q[gpd]}$$

#### C. Look up the precipitation adjustment factor

Use Table 3.1 to look up F based on the local average annual precipitation for the project.

#### D. Calculate allowable concentration

Multiply the  $C_{unadjusted}$  and the F together to get the C for the project.

$$C \left[ \frac{mg}{L} \right] = F[unitless] \times C_{unadjusted} \left[ \frac{mg}{L} \right]$$

### II. Calculation example

Example Applicant Variable	Example Applicant Value
<b>R</b>	35,000
<b>Q</b>	1500 gallons per day
<b>A</b>	3 acres
Average annual precipitation	22 inches
<b>F</b>	0.33

$$C_{unadjusted} \left[ \frac{mg}{L} \right] = \frac{35,000 \times 3}{1500} = 70 \left[ \frac{mg}{L} \right]$$

$$C \left[ \frac{mg}{L} \right] = 0.33 \times 70 \left[ \frac{mg}{L} \right] \approx 23 \left[ \frac{mg}{L} \right]$$

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ATTACHMENT 4: MONITORING AND REPORTING PROGRAM  
FRAMEWORK**

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**BACKGROUND**

A monitoring and reporting program (MRP) is issued for every permittee whose discharge is covered by the Limited Domestic Order or any other order of waste discharge requirements pursuant to Water Code section 13267. Water Code section 13267 states, in part:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

Water Code section 13268, building from section 13267, states, in part:

(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not

exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

An MRP created for a permittee covered by the Limited Domestic Order describes requirements for monitoring the discharge regulated by the Limited Domestic Order and reporting the results of the monitoring to the Lahontan Water Board to ensure compliance with the Limited Domestic Order discharge requirements. This attachment contains guidance for developing such an MRP, which is specific to the individual permittee. The MRP reflects site-specific conditions and is issued as part of the notice of applicability (NOA).

The permittee shall follow the MRP unless a revised MRP is issued by the Lahontan Water Board Executive Officer (Executive Officer). The results of any monitoring done more frequently than required by an MRP shall be reported in the next regularly scheduled monitoring report. Values obtained through additional monitoring shall be used in calculations as appropriate.

## **GENERAL COMPONENTS**

### **I. Reporting Project Status**

The monitoring and reporting program (MRP) requires information on the status of facility upgrade and improvement projects. When specified, the permittee shall provide updated status of these projects with each submitted report.

### **II. Sampling Method**

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form shall also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Lahontan Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used if they are also used by a State Water Board California Environmental Laboratory Accreditation Program certified laboratory, or:

- The user is trained in proper use and maintenance of the instruments.
- The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer.
- Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency.
- Field calibration reports are maintained and available for at least three years.



### **III. Reporting Method**

The Regional Water Board has transitioned to a paperless office system. Permittees shall submit reports (both technical and monitoring reports) to a digital database, specified in the NOA, such as the State Water Board's Geotracker database in portable document format (pdf). Analytical data shall be uploaded to the same database under a site-specific global identification number. Information on the Click on the link for information on the GeoTracker database.

### **IV. Certification**

A letter transmitting the monitoring reports shall accompany each report. The letter shall report all violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the permittee or the permittee's authorized agent:

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

### **V. Wastewater-, Treatment System-, and Site-Specific MRP Components**

Wastewater treatment methods may vary by site, and available technologies are expected to evolve with time. BPTCs may include aerobic treatment systems, sand/media filters, package treatment plants, constructed wetlands, activated sludge, membrane biological reactors, and disinfection systems. The following monitoring and reporting program framework for treatment systems has been generalized with the intent to not limit the selection of alternatives available to the wastewater system designer.

Best practicable treatment or controls (BPTCs) are selected based on wastewater, treatment system, site conditions, and the overall perceived threat to water quality. A specific MRP is developed based on the BPTCs implemented in the treatment system, which inform the frequency, constituents, and location of proposed site-specific monitoring.

All treatment systems are monitored to ensure compliance with numerical and narrative effluent limitations. This includes the requirement to not contain trace elements, pollutants or contaminants, or combinations thereof, in concentrations that are toxic or harmful to humans or to aquatic or terrestrial plant or animal life.

The following contains a conceptual framework of basic monitoring and reporting program needs for the treatment and disposal system.

**A. Facility Monitoring**

MRP Frame Number	MRP Frame Element
1.	The permittee shall inspect their facility quarterly or at other appropriate intervals for any maintenance needs, including vector mitigation features (e.g., fencing, netting).
2.	The permittee shall have a device to measure wastewater flow.
3.	The permittee shall measure and record average daily average and peak flows. Flow rate may be metered or estimated based on potable water supply meter readings or other approved method.
4.	The permittee shall establish an influent sample point that provides representative samples of the wastewater quality.
5.	The permittee shall establish an effluent sample collection point that represents the effluent quality distributed to the disposal area. This is generally the effluent from the last treatment unit of the treatment process.
6.	<p>The permittee shall collect effluent grab samples on a quarterly basis and analyze each sample for the following constituents, as specified in the individual MRP:</p> <ul style="list-style-type: none"> <li>• All facilities:                             <ul style="list-style-type: none"> <li>○ Biochemical oxygen demand (BOD), 5 day 20°C, as milligrams per liter</li> <li>○ Total dissolved solids (TSS) as milligrams per liter</li> <li>○ Total nitrogen as milligrams per liter</li> <li>○ Other constituents as needed and based on the ROWD, to ensure effluent limit compliance</li> </ul> </li> <li>• Facilities with disinfection systems:                             <ul style="list-style-type: none"> <li>○ Total coliform organism as MPN per 100 milliliters</li> </ul> </li> <li>• Facilities receiving recreational vehicle, portable toilet, or similar waste in the previous 12 months:                             <ul style="list-style-type: none"> <li>○ Zinc</li> <li>○ Phenol</li> <li>○ Formaldehyde</li> </ul> </li> </ul>
7.	<p>The permittee shall collect shall measure and record field parameters with each sample event for the following constituents, as specified in the individual MRP:</p> <ul style="list-style-type: none"> <li>• Turbidity as Nephelometric Turbidity Unit</li> <li>• Other constituents as needed and based on the ROWD, to ensure effluent limit compliance</li> </ul>

**B. Groundwater Monitoring**

A groundwater monitoring program may also be applicable and may be required when there is concern for groundwater degradation.

MRP Frame Number	MRP Frame Element
8.	The permittee shall collect representative groundwater grab samples (up and down gradient within the aquifer(s) of concern) on a quarterly basis and analyze each sample for the following constituents. <ul style="list-style-type: none"> <li>• Biochemical oxygen demand (BOD), 5 day 20°C, as milligrams per liter</li> <li>• Total dissolved solids (TSS) as milligrams per liter</li> <li>• Total nitrogen as milligrams per liter</li> <li>• Total coliform organism as MPN per 100 milliliters</li> </ul>
9.	The permittee shall measure and record field parameters with each sample event. The field parameters are determined after well purging and before well sampling. <ul style="list-style-type: none"> <li>• Electrical conductivity (EC) as microseconds per centimeter</li> <li>• Acidity/basicity as pH</li> <li>• Temperature as degree Fahrenheit or Celsius</li> <li>• Turbidity as Nephelometric Turbidity Unit</li> <li>• Dissolved oxygen as milligrams per liter</li> <li>• Oxidation reduction potential as millivolts</li> <li>• Groundwater depth as feet, rounded to the nearest 0.1 feet</li> </ul>

**C. General Reporting**

MRP Frame Number	MRP Frame Element
10.	The permittee shall include, as applicable, the copies of sludge disposal records including date and gallons in reports
11.	The permittee shall include a narrative description of all operation and maintenance inspections and activities completed during the reporting period
12.	The permittee shall include flow monitoring results in reports
13.	The permittee shall submit annual reports for the period beginning January 1 and ending December 31 on February 1 of the following year.

<b>MRP Frame Number</b>	<b>MRP Frame Element</b>
14.	<p>The permittee shall include a work plan (signed by a California licensed professional civil engineer) for any identified maintenance needs. The permittee shall report the following information for each maintenance project:</p> <ul style="list-style-type: none"> <li>• Name of the project</li> <li>• Project description</li> <li>• Project purpose</li> <li>• Scheduled start construction date</li> <li>• Scheduled end construction date</li> <li>• Scheduled attainment of operation date</li> </ul> <p>Reason for changes in scheduled dates from the previous report</p>
15.	<p>The permittee shall submit quarterly reports according to the following schedule:</p> <ul style="list-style-type: none"> <li>• The January 1 to March 31 report is due by May 1 of the same year</li> <li>• The April 1 to June 30 report is due by August 1 of the same year</li> <li>• The July 1 to September 30 report is due by November 1 of the same year</li> <li>• The October 1 to December 31 report is due by February 1 of the following year</li> </ul>
16.	<p>The permittee shall include the following for each grab sample:</p> <ul style="list-style-type: none"> <li>• Change of custody forms</li> <li>• Laboratory reports for each constituent monitored</li> <li>• The location of each effluent sample</li> <li>• Comparison of collected data with any numerical effluent limitations established in the Order</li> <li>• Statement whether any effluent limitation is exceeded</li> </ul>