CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

RESOLUTION NO. R6T-2023-0025

ADOPTION OF AMENDMENT TO

THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION

TO REMOVE THE REGIONWIDE BACTERIA WATER QUALITY OBJECTIVES AND INSERT DISCUSSION OF THE REC-1 BACTERIA PROVISIONS

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region, (Lahontan Water Board) finds that:

1. The federal Clean Water Act (CWA) requires each California Regional Water Quality Control Board to develop water quality objectives which are sufficient to protect beneficial uses designated for each water body found within its region.

2. The Amendment to the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) was developed in accordance with Water Code section 13240.

3. The Porter-Cologne Act declares, “the quality of all the waters of the state shall be protected for the use and enjoyment by the people of the state.” (Water Code section 13000.)

4. Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Regional Water Boards’ basin planning process as a “certified regulatory program” that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) requirements for preparing environmental documents. (California Code of Regulations title 14, §15251, subdivision (g); California Code of Regulations, title 23, §3777.)

5. State Water Resources Control Board Resolution No. 2018-0038 resolves to “Encourage[] the Lahontan Regional Water Board to evaluate with input from relevant stakeholders the region’s fecal coliform water quality objective, […] and to prioritize that effort during the region’s upcoming triennial review process, which the region anticipates will occur during the fall of 2018.”

6. The Amendment modifies the Basin Plan to remove the regionwide narrative water quality objective for coliform bacteria and remove the regionwide numeric water quality objective for fecal coliform in Chapter 3 (Water Quality Objectives) and Chapter 5 (Water Quality Standards and Control Measures for The Lake Tahoe

Basin), and the fecal coliform water quality objective specific to the Susanville hydrologic unit in Chapter 3. The Amendment modifies the Basin Plan to remove reference to these water quality objectives in Chapter 2 (Present and Potential Beneficial Uses) and Chapter 4 (Implementation). The Amendment modifies the Basin Plan to insert reference to Part 3 of the Inland Surface Waters Enclosed Bays and Estuaries Plan, Bacteria Provisions, in Chapter 3 and Chapter 5 of the Basin Plan. The Amendment modifies the Basin Plan for the discussion of methods of analysis and sampling methods for the Bacteria Provisions, removing those applicable to the fecal coliform objective, in Chapters 3 and 5.

7. The Staff Report, including Substitute Environmental Documentation, for the Amendment describes the necessity for and the scope of the Amendment. It also contains the environmental documentation required by the State Water Board's certified regulatory program regulations (Cal. Code Regs., tit. 23, § 3720 et seq.) to comply with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Substitute Environmental Documentation consists of the Staff Report (including documents referenced therein), the comments and responses to comments on the Staff Report and the Amendment, the environmental checklist, and this resolution.

8. The Lahontan Water Board complied with the tribal consultation requirements established by Governor's Executive Order No. B-10-11 (September 19, 2011) and Assembly Bill 52 (Gatto) (Stats. 2014, ch. 532) which ensure tribal governments have the opportunity to provide meaningful input in the development of regulations, rules, policies, or projects that may affect Native American Tribes. Pursuant to Public Resources Code § 21080.3.1 (AB 52 Gatto), on August 4, 2021, the Lahontan Water Board sent letters providing an opportunity for consultation on the project to ten tribes that have requested notification of consultation opportunities on CEQA projects ("AB 52 notices) in the Lahontan Region and to representatives of 27 other Tribes identified as being in, or having historic ties to, the Lahontan Region. The Lahontan Water Board received one letter from the Shingle Springs Band of Miwok Indians (Sept. 22, 2021), and emails from the San Manuel Band of Mission Indians (August 18, 2021) and the United Auburn Indian Tribe (September 15, 2021) indicating no interest in consultation.

9. Consistent with Water Code section 189.7, the Lahontan Water Board has conducted outreach in potentially affected disadvantaged and tribal communities. Pursuant to Water Code section 13149.2, the Lahontan Water Board reviewed readily available information concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from this action. The Lahontan Water Board also considered environmental justice concerns within its authority with regard to those impacts. Based on these considerations and as further

discussed in the Staff Report, this Amendment results in no adverse water quality impacts to tribal and/or disadvantaged communities.

10. A CEQA scoping meeting was conducted October 14, 2021, virtually on Zoom.

11. The public had a reasonable opportunity to participate in the review of the proposed Amendments to the Basin Plan. On February 23, 2022, a draft Staff Report and draft Basin Plan Amendment were prepared and distributed to interested individuals for a 51-day period for review and comment. The Lahontan Water Board staff responded to the three comment letters.

12. An updated draft Staff Report, Substitute Environmental Documentation and draft Basin Plan Amendment were prepared and distributed to interested individuals on March 16, 2023, for a 45-day period for review and comment. The Lahontan Water Board staff responded to the two comment letters.

13. A Notice of Hearing was published in newspapers of record throughout the Lahontan Region, posted on the Lahontan Water Board webpage on May 10, 2023, distributed via email to the Basin Planning – Regionwide and the Board Meeting listservs on May 11, 2023, and sent to representatives of 87 tribes on May 12, 2023. The proposed Staff Report, Basin Plan Amendment language, and tentative Resolution were posted on the Water Board website on May 26, 2023.

14. The Lahontan Water Board heard and considered oral comments presented at the public hearing held on June 28, 2023, in Bishop and by video and teleconference.

15. The record, including the Staff Report, indicates that these Amendments are consistent with the provisions of the State Water Resources Control Board's (State Water Board) Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California" and federal antidegradation policy prescribed in 40 CFR section 131.12.

16. The Staff Report contains the environmental documentation required by the State Water Board's certified regulatory program regulations (Cal. Code Regs., tit. 23, § 3720 et seq.) to comply with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), including a description of the project; a completed environmental checklist; and an identification of any significant or potentially significant adverse impacts of the project. (Cal. Code Regs., tit. 23, § 3777, subds. (a)-(c).). The Lahontan Water Board is the lead agency with respect to the adoption of the Amendment. The Lahontan Water Board has determined that the project would not result in any reasonably foreseeable significant adverse environmental impacts. Furthermore, the project is not expected to have any effects on fish and wildlife. In preparing the environmental analysis pertaining to the reasonably foreseeable methods of compliance, the Lahontan Water Board is "not

required to conduct a site-specific project level analysis of the methods of compliance, which CEQA may otherwise require of those agencies who are responsible for complying with the plan or policy when they determine the manner in which they will comply." (Id., § 3777, subd. (c).). As discussed in the Staff Report, the Lahontan Water Board finds that there are no reasonably foreseeable methods of compliance associated with the project. As no potentially significant effects were identified from the reasonably foreseeable methods of compliance or the project, a statement of overriding considerations is not required.

17. The proposed Amendment meets the necessity standard of the Administrative Procedures Act, Government Code section 11353, subdivision (b).

THEREFORE BE IT RESOLVED THAT:

1. The Lahontan Board hereby approves and adopts the final CEQA substitute environmental documentation prepared in accordance with the regulations applicable to the State Water Board's certified regulatory programs, California Code of Regulations, title 23, sections 3777 through 3779.

2. Pursuant to Water Code section 13240, et seq., the Lahontan Water Board, after considering the entire administrative record, including all oral testimony and written comments, adopts the Amendment to the Basin Plan as set forth in the Enclosure.

3. The Lahontan Water Board authorizes the Executive Officer or designee to submit the Basin Plan amendment and the administrative record to the State Water Board for review and approval in accordance with the requirements of Water Code section 13245.

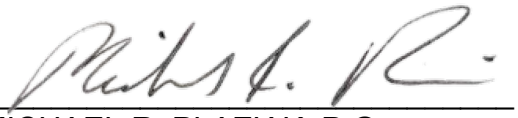
4. The Lahontan Water Board requests that the State Water Board approve the Basin Plan Amendment in accordance with the requirements of Water Code sections 13245 and 13246.

5. Upon State Water Board approval, the Lahontan Water Board authorizes the Executive Officer or designee to submit the Basin Plan Amendment and the administrative record to the California Office of Administrative Law (OAL) and the U.S. EPA for review and approval.

6. If during its approval process, Lahontan Water Board staff, State Water Board or OAL determines that minor, non-substantive changes to the Amendment language or supporting staff report are needed for clarity or consistency, the Lahontan Water Board authorizes the Executive Officer or designee to make such changes, and inform the Lahontan Water Board of any such changes.

7. The Lahontan Water Board authorizes the Executive Officer or designee to request a “No Effect Determination” from the Department of Fish and Wildlife or to transmit payment of the applicable fee as may be required by the Department of Fish and Wildlife.

I, Michael R. Plaziak, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 28, 2023.



MICHAEL R. PLAZIAK, P.G.
EXECUTIVE OFFICER

Enclosure: Basin Plan Amendment

[The entirety of the following text, except the italicized annotations, is proposed to be adopted as the Fecal Bacteria Water Quality Objectives Basin Plan Amendment (Bacteria WQOs BPA). The Bacteria WQOs BPA would constitute new regulatory language. Several editorial revisions may be made when the Bacteria WQOs BPA is incorporated into the Water Quality Control Plan for the Lahontan Region (Basin Plan). Editorial revisions may include, but are not limited to, changes to the title page, table of contents, appendices, page numbers, table and figure numbers, footnote numbers, headers and footers, and other non-substantive changes to improve accessibility of the document.]

Basin Plan Amendments for fecal bacteria water quality objectives

[The amendments include changes to Basin Plan Chapter 2 (beneficial uses), Chapter 3 (water quality objectives) and Chapter 5 (water quality standards and control measures for the Lake Tahoe Basin). Text that will be removed from the Basin Plan is preceded with '[The following text is removed]:,' text that will be added to the Basin Plan is preceded with '[The following text is inserted]:']

Changes to Basin Plan Chapter 2, Page 5, in the paragraph starting with the sentence: "Recreation uses (both Water Contact Recreation, or REC-1, and Non-contact Water Recreation, or REC-2) have been designated for all surface waters of the Lahontan Region."

[The following text is removed]:

The Lahontan Regional Board's regionwide water quality objective for coliform bacteria, which provides that "waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources including human and livestock wastes", is more stringent than the USEPA's current (1986) bacteria criteria for recreational waters, which allow specific minimum concentrations of Escherichia coli and enterococci (criteria cited in USEPA, 1998).

Changes to Basin Plan Chapter 3, Page 4

[The following text is removed]:

Bacteria, Coliform

Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes.

The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.

[The following text is inserted]:

Fecal Indicator Bacteria

Surface waters with Water Contact Recreation (REC-1):

The State Water Resources Control Board (State Water Board) established two bacteria water quality objectives applicable to all inland surface waters, enclosed bays, and estuaries of the state with the REC-1 beneficial use, depending on the salinity level, and an implementation plan in 'Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California — Bacteria Provisions and a Water Quality Standards Variance Policy' (Bacteria Provisions)' adopted with State Water Board Resolution No. 2018-0038. The Bacteria Provisions should be consulted in their entirety for a complete accounting of the water quality objectives and associated implementation provisions. The water quality objectives are summarized below.

Escherichia Coli (E. coli)

The bacteria water quality objective for all waters where the salinity is equal to or less than 1 part per thousand (ppth) 95 percent or more of the time during the calendar year is: a six-week rolling geometric mean (GM) of E. coli not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a Statistical Threshold Value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

United States Environmental Protection Agency (U.S. EPA) recommends using U.S. EPA Method 1603 or other equivalent method to measure culturable E. coli.

Enterococci

The bacteria water quality objective for all waters where the salinity is greater than 1 ppth more than 5 percent of the time during the calendar year is: a six-week rolling geometric mean of enterococci not to exceed 30 cfu/100 mL, calculated weekly, with a STV of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

U.S. EPA recommends using U.S. EPA Method 1600 or other equivalent method to measure culturable enterococci.

Table 3 - 0. REC-1 Bacteria Water Quality Objectives

Applicable Waters	**Objective Elements**	**Estimated Illness Rate (NGI): 32 per 1,000 water contact recreators Magnitude (cfu/100 mL)**	
	Indicator	GM	STV
All waters where the salinity is equal to or less than 1 ppt 95 percent or more of the time	E. coli	100	320

All waters where the salinity is greater than 1 ppt more than 5 percent of the time	Enterococci	30	110

Table notes:

1. The waterbody GM shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly. The applicable STV shall not be exceeded by more than 10 percent of the samples collected in a CALENDAR MONTH, calculated in a static manner.
2. NGI = National Epidemiological and Environmental Assessment of Recreational Water gastrointestinal illness rate
3. GM = geometric mean
4. STV = statistical threshold value
5. cfu = colony forming units
6. ppt = parts per thousand
7. ml = milliliters

Changes to Basin Plan Chapter 3, Page 6, Susanville Hydrologic Unit

[The following text is removed]:

Bacteria, Fecal Coliform

The fecal coliform concentration based on a minimum of not less than five samples for any 30- day period, shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of total samples during any 30-day period exceed 75/100 ml.

Changes to Basin Plan Chapter 3, Page 16, 'References to "Means"…'

[The following text is removed]:

References to "Means" (e.g., annual mean, log mean, mean of monthly means), "Medians" and "90th Percentile Values"

"Mean" is the arithmetic mean of all data. **"Annual mean"** is the arithmetic mean of all data collected in a one-year period. **"Mean of monthly means"** is the arithmetic mean of 30-day averages (arithmetic means). A logarithmic or **"log mean"** (used in determining compliance with bacteria objectives) is calculated by converting each data point into its log, then calculating the mean of these values, then taking the anti-log of this log transformed average. The **median** is the value that half of the values of the population exceed, and half do not. The **average value** is the arithmetic mean of all data. For a **90th percentile value**, only 10% of data exceed this value.

[The following text is inserted]:

References to "Means" (e.g., annual mean, geomean, mean of monthly means), "Medians", "90th Percentile Values" and Statistical Threshold Values

"Mean" is the arithmetic mean of all data. **"Annual mean"** is the arithmetic mean of all data collected in a one-year period. **"Mean of monthly means"** is the arithmetic mean of 30-day averages (arithmetic means). A geometric mean or **"geomean"** is a type of mean that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geomean is defined as the nth root of the product of n numbers. The formula is expressed as: GM = $\sqrt{}(x1\ )(x2\ )(x3\ )\ \ldots\ (xn\ )\ n$, where x is the sample value and n is the number of samples taken. The **median** is the value that half of the values of the population exceed, and half do not. The **average value** is the arithmetic mean of all data. For a **90th percentile value**, only 10% of data exceed this value. A **statistical threshold value (STV)** for the fecal indicator bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

Changes to Basin Plan Chapter 3, Page 16, 'bacterial analyses' paragraph

[The following text is removed]:

For bacterial analyses sample dilutions should be performed so the range of values extends from 2 to 16,000. The detection method used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in Standard Methods for the Examination of Water and Wastewater (American Public Health Association et al.), or any alternative method determined by the Regional Board to be appropriate.

[The following text is inserted]:

For bacterial analyses, the detection method used for each analysis shall be reported with the results of the analysis. Detection methods used for fecal indicator bacteria (FIB) shall be those presented in the most recent addition of Standard Methods for the Examination of Water and Wastewater (American Public Health Association et al.), or any alternative method determined by the Regional Board to be appropriate.

Changes to Basin Plan Chapter 4.9, Page 19, column 2, paragraph 1

[The following text is removed]:

Rangeland streams can show increased coliform bacterial levels with fecal coliform levels tending to increase as intensity of livestock use increases. Fecal coliforms serve as indicators that pathogens could exist and flourish.

[The following text is inserted]:

Rangeland streams may be impacted by fecal bacteria, which may be demonstrated by increased fecal indicator bacteria levels as intensity of livestock use increases. Fecal indicator bacteria are indicators that pathogens may be present in a surface water.

Changes to Basin Plan Chapter 5.1, Page 6

[The following text is deleted]:

Bacteria, Coliform

Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes.

The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.

[The following text is inserted]:

Fecal Indicator Bacteria

Surface waters with Water Contact Recreation (REC-1):

The State Water Resources Control Board (State Water Board) established two bacteria water quality objectives applicable to all inland surface waters, enclosed bays, and estuaries of the state with the REC-1 beneficial use, depending on the salinity level, and an implementation plan in 'Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California — Bacteria Provisions and a Water Quality Standards Variance Policy' (Bacteria Provisions)' adopted with State Water Board Resolution No. 2018-0038. The Bacteria Provisions should be consulted in their entirety for a complete accounting of the water quality objectives and associated implementation provisions. The water quality objectives are summarized below.

Escherichia Coli (E. coli)

The bacteria water quality objective for all waters where the salinity is equal to or less than 1 part per thousand (ppth) 95 percent or more of the time during the calendar year is: a six-week rolling geometric mean (GM) of E. coli not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a Statistical Threshold Value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

United States Environmental Protection Agency (U.S. EPA) recommends using U.S. EPA Method 1603 or other equivalent method to measure culturable E. coli.

Enterococci

The bacteria water quality objective for all waters where the salinity is greater than 1 ppth more than 5 percent of the time during the calendar year is: a six-week rolling geometric mean of enterococci not to exceed 30 cfu/100 mL, calculated weekly, with a STV of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

U.S. EPA recommends using U.S. EPA Method 1600 or other equivalent method to measure culturable enterococci.

Table 5 - 0. REC-1 Bacteria Water Quality Objectives

Applicable Waters	**Objective Elements**	**Estimated Illness Rate (NGI): 32 per 1,000 water contact recreators Magnitude (cfu/100 mL)**	
	Indicator	GM	STV
All waters where the salinity is equal to or less than 1 ppt 95 percent or more of the time	E. coli	100	320
All waters where the salinity is greater than 1 ppt more than 5 percent of the time	Enterococci	30	110

Table notes:

1. The waterbody GM shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly. The applicable STV shall not be exceeded by more than 10 percent of the samples collected in a CALENDAR MONTH, calculated in a static manner.
2. NGI = National Epidemiological and Environmental Assessment of Recreational Water gastrointestinal illness rate
3. GM = geometric mean
4. STV = statistical threshold value
5. cfu = colony forming units
6. ppt = parts per thousand
7. ml = milliliters

Changes to Basin Plan Chapter 5.1, Page 12, 'References to "Means"…'

[The following text is removed]:

References to "Means" (e.g., annual mean, log mean, mean of monthly means), "Medians" and "90th Percentile Values"

"Mean" is the arithmetic mean of all data. **"Annual mean"** is the arithmetic mean of all data collected in a one-year period. **"Mean of monthly means"** is the arithmetic mean

of 30-day averages (arithmetic means). A logarithmic or **"log mean"** (used in determining compliance with bacteria objectives) is calculated by converting each data point into its log, then calculating the mean of these values, then taking the anti-log of this log transformed average. The **median** is the value that half of the values of the population exceed, and half do not. The **average value** is the arithmetic mean of all data. For a **90th percentile value**, only 10% of data exceed this value.

[The following text is inserted]:

References to "Means" (e.g., annual mean, geomean, mean of monthly means), "Medians", "90th Percentile Values" and Statistical Threshold Values

"Mean" is the arithmetic mean of all data. **"Annual mean"** is the arithmetic mean of all data collected in a one-year period. **"Mean of monthly means"** is the arithmetic mean of 30-day averages (arithmetic means). A geometric mean or **"geomean"** is a type of mean that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geomean is defined as the nth root of the product of n numbers. The formula is expressed as: GM = $\sqrt{}(x1\ )(x2\ )(x3\ )\ \ldots\ (xn\ )\ n$, where x is the sample value and n is the number of samples taken. The **median** is the value that half of the values of the population exceed, and half do not. The **average value** is the arithmetic mean of all data. For a **90th percentile value**, only 10% of data exceed this value. A **statistical threshold value (STV)** for the fecal indicator bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

Changes to Basin Plan Chapter 5.1, Page 12, 'bacterial analyses' paragraph

[The following text is removed]:

For bacterial analyses sample dilutions should be performed so the range of values extends from 2 to 16,000. The detection method used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those presented in Standard Methods for the Examination of Water and Wastewater (American Public Health Association et al.), or any alternative method determined by the Regional Board to be appropriate.

[The following text is inserted]:

For bacterial analyses, the detection method used for each analysis shall be reported with the results of the analysis. Detection methods used for fecal indicator bacteria (FIB) shall be those presented in the most recent addition of Standard Methods for the Examination of Water and Wastewater (American Public Health Association et al.), or any alternative method determined by the Regional Board to be appropriate.