Lahontan Region 2018 Integrated Report Response to Comments

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CCA-1	California Cattlemen's Association	Numerous CCA members throughout the Lahontan Region have expressed concerns with listing proposals in the Lahontan Region, particularly with new listings for Susan River (Willard Creek to Susanville) and Susan River (Susanville to Honey Lake). Those members have expressed frustration that they cannot meaningfully access the underlying data employed by the Lahontan Water Board to justify its proposed 303(d) impairment listings—a frustration shared by CCA staff. CCA staff urges the Lahontan Water Board to improve public access to this data by making more information available in an easily-interpreted format and by providing additional time for the public to review and comment upon that data.	The data that forms the basis for the proposed 303(d) listings is available via links within the Lines of Evidence that enable the associated data file to be downloaded as an Excel file. Some familiarity with Excel is required to locate the data specific to an individual Line of Evidence. Due to the need to timely complete the Integrated Report, an extension to the public comment period beyond 60 days was not granted. Staff is available to assist the CCA to access specific data. Staff reached out to the CCA to offer assistance in this matter in an email sent to the commenter on August 14, 2019. Additionally, the Lahontan Water Board Executive Officer offered assistance in subsequent conversations with the commenter. The CCA did not respond to Water Board staff and Executive Officer offers of help to access and interpret the assessed data.
CCA-2	California Cattlemen's Association	CCA also urges the Lahontan Water Board not to list water bodies as impaired by indicator bacteria on the basis of Lahontan's unreasonably strict fecal coliform standard of 20cfu/100mL, but instead to reference the state E. coli standard and/or delay listing decisions on the basis of bacterial objectives exceedances until after the Lahontan Water Board conducts its Evaluation of Bacteria Water Quality Objectives.	The Water Quality Control Plan for the Lahontan Region (Basin Plan) currently contains a water quality objective for bacteria that applies to all waters in the Lahontan Region and is based on fecal coliform concentrations (see Basin Plan, Chapter 3, Water Quality Objectives, Page 3-4). The 2018 Triennial Review of the Basin Plan prioritized an effort to evaluate the Lahontan Region's bacteria water quality objective. While underway, that effort has not been completed and the Lahontan Water Board is required to include the Basin Plan fecal coliform water quality objective in the assessment process for the 2018 Integrated Report. Additionally, the California Listing Policy states in Section 3.3, Numerical Water Quality Objectives or Standards for Bacteria Where Recreational Uses Apply, that "In the absence of a site-specific exceedance

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			frequency, a water segment shall be placed on the section 303(d) list if bacteria water quality standards in California Code of Regulations, Basin Plans, or statewide plans are exceeded using the binomial distribution as described in section 3.2. These requirements prevent the Water Board from delaying the assessment of bacteria water quality data against the Basin Plan fecal coliform water quality objective.
CCA-3	California Cattlemen's Association	The California Administrative Procedures Act requires that "the record of the rulemaking proceeding demonstrates by substantial Evidence the need for a regulation to effectuate the purpose of the statute" and that a proposed regulatory action be "written or displayed so that the meaning of regulations will be easily understood by those persons directly affected by them." The integrated report fails on both counts, as the Staff Report and accompanying materials fail to present the justifications for the proposed 303(d) listing in any format that can be meaningfully understood by the impacted public. 1 CAL. GOV'T CODE § 11349 (defining "necessity").	The Integrated Report assessment process conducted by the Regional Board is not a rulemaking action and is not subject to the California Administrative Procedures Act. The transmittal of the Regional Board's recommendations for the revised Section 303(d) List, and other supporting information to the State Water Board for its consideration, and State Water Board's approval of the 303(d) List portion of the Integrated Report and submission of the Integrated Report (sections 303(d) and 305(b)) to U.S. EPA does not constitute a rulemaking or a promulgated regulation. This process does not commit the Water Board to any definite course of action. The State Water Board's proposed 303(d) list, while formally "approved" by resolution, constitutes a recommendation to U.S. EPA of the water quality limited segments within its boundaries, and a priority ranking of such waters, taking into account the severity of pollution and the beneficial uses to be made. (Clean Water Act, § 303(d)(1)(A).) U.S. EPA then conducts an independent review of the state's recommendations and either approves, or disapproves, the state's proposed listings. (Id., § 303(d)(2).) When a 303(d) list is approved, it becomes part of the state's water quality management plan. When the EPA disapproves a state's proposed 303(d) list, the EPA must promulgate its own list of impaired water segments, which must be

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			incorporated into the state's water quality management plan. (Id.) Upon the State Water Board's approval of the 303(d) list, no rights vest and the Water Boards are not bound to any definite course of action. The Water Board is not adopting or amending a rule of general application or otherwise adopting a regulation.
			Under Section 303(d) of the Act, states are required to evaluate all available water quality-related data and information to develop a list of waters that do not meet established water quality standards (impaired) and those that currently meet water quality standards, but may exceed it in the next reporting cycle (threatened). As discussed in more detail, below, the underlying information and water quality data that forms the basis for the proposed 303(d) listings in the 2018 Integrated Report are available via links on the Lines of Evidence in the Fact Sheets in Appendix H. Staff has offered to help the CCA find the data of interest to them. However, the California Administrative Procedures Act is not violated because the
			Integrated Report is not a regulation and its completion is not a regulatory action.

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CCA-4	California Cattlemen's Association	Take, for instance, Susan River (Willard Creek to Susanville), which is proposed as a new listing due to indicator bacteria exceedances. The Staff Report does not list any of the underlying data which justifies the listing, but readers are instead directed to Lines of Evidence contained in Appendix H. Upon successfully navigating the voluminous Appendix H and finding the proper watercourse within the proper subcategory, the reader will be taken to the relevant Line of Evidence. But the Lines of Evidence provide little meaningful information for members of the public most likely to be impacted by the proposed 303(d) listing. For instance, the summary for Line of Evidence 96950 states that 18 of 35 samples "exceeded the water quality objective of 20CFU/100mL," but provides no further detail (for instance, what the fecal coliform concentrations of those 18 samples were).	Considering the volume of data utilized and the number of decisions for which data would need to be reported, details regarding each decision are available via the Waterbody Fact Sheets contained in Appendix H. Each decision includes one or more Lines of Evidence that display the outcome of the assessment for a given waterbody/pollutant/beneficial use combination by providing the total number of samples assessed and the number of exceedances identified for those samples. The Lines of Evidence do not include the numeric values for each of the samples or exceedances. However, that information is available by accessing the data file associated with the Line of Evidence, and subsequently sorting and filtering the data to identify the water quality sampling data for that Line of Evidence.
CCA-5	California Cattlemen's Association	Ideally, an interested member of the public could access the underlying data to determine what justifies the regulation. Indeed, the Lines of Evidence do include links to the CEDEN databases including the underlying data. For Line of Evidence 96950, for instance, the CEDEN information produces two spreadsheets; the user must properly select between the two. If the proper database is selected, one	An R-based script was used to complete the necessary computations to assess the bacteria data. R is an open source programming language for data analysis that can be used to process large amounts of data. Staff is available to assist the CCA and other interested stakeholders to access specific data.

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		discovers that it contains 15,591 rows of raw data. Even isolating the data to the analytes of "coliform, fecal" and "E. coli" results in 3,571 rows of raw data. It is unclear how a reader is to identify the 35 geomeans computed from this raw data by the Lahontan Board (or indeed how a reader is to make sense of any individual sample given the complexity of the spreadsheets).	
CCA-6	California Cattlemen's Association	Simply put: no ordinary citizen can be expected to make sense of CEDEN's voluminous datasets, but citizens should still have access to sufficient data to understand the justifications underlying a regulatory action. The Final Staff Report ought to provide more detail regarding the alleged water quality exceedances which justify amendments to the 303(d) list. At a minimum, the Lines of Evidence in Appendix H ought to specify the value of the exceedances which necessitate the addition of a water body to the 303(d) list. For example, for Line of Evidence 96950 for listing indicator bacteria on the Susan River (Willard Creek to Susanville), the Line of Evidence summary ought to, at a minimum, list the value (in cfu/100mL) of the 18 claimed exceedances.	Please refer to the response to comment CCA-4. All the data relied upon for the 2018 Integrated Report assessment are available via links within the individual Lines of Evidence. The large size of the data files accessed via the Lines of Evidence in Appendix H can be challenging for non-technical stakeholders. Staff is available to assist the CCA and other interested stakeholders to access specific data associated with the Lines of Evidence. Water Board staff sent an email to the CCA on August 14, 2019 offering to assist with data interpretation. However, CCA did not engage with Water Board staff to seek help interpreting the data assessed in the Integrated Report.

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CCA-7	California Cattlemen's Association	The Lahontan Basin Plan currently sets a geometric mean for fecal coliform at 20 cfu/100mL. Prior to the State Water Resources Control Board's adoption of an E. coli standard (of 100 cfu/100mL), the SWRCB employed a fecal coliform standard of 200cfu/100mL. Given the far more liberal water quality standards throughout the rest of the state, CCA has repeatedly objected to this overly-restrictive Lahontan standard.³ In short, our concerns have been as follows: (1) that the restrictive standards appear to lack adequate scientific basis showing a necessity for the more restrictive objectives, (2) that the restrictive fecal coliform standards are unachievable under any circumstances, including where ranchers cooperate with regional water board staff and adhere to best management practices, and (3) that the more restrictive standards place ranchers in the Lahontan Region at a distinct economic disadvantage to ranchers throughout the rest of California and the rest of the country. 3 See, e.g., Letter from Kirk Wilbur, Director of Government Affairs, California Cattlemen's Association to Daniel Sussman, Lahontan Regional Water Quality Control Board (Sept. 20, 2018); Letter from Kirk Wilbur, Director of Government Affairs, California Cattlemen's Association to Jeanine Townsend, Clerk to	The 2018 Triennial Review of the Basin Plan prioritized an effort to evaluate the Lahontan Region's bacteria water quality objective. While underway, that effort has not been completed and the Lahontan Water Board is required to include the Basin Plan fecal coliform water quality objective in the assessment process for the 2018 Integrated Report. See response to CCA-2, above. There are waterbodies in the Lahontan Region that meet the Basin Plan fecal coliform bacteria objective, so it is incorrect to state that these standards are unachievable under any circumstances.

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CCA-8	California Cattlemen's	the Board, State Water Resources Control Board (Feb. 20, 2015); Letter from Kirk Wilbur, Director of Government Affairs, California Cattlemen's Association and Jack L. Rice, Associate Counsel, California Farm Bureau Federation to Felicia Marcus, Chair, State Water Resources Control Board (May 30, 2014); Letter from Margo Parks, Associate Director of Government Relations, California Cattlemen's Association and Kari Fisher, Associate Counsel, California Farm Bureau Federation to the Lahontan Regional Water Quality Control Board (November 2013). In determining whether water bodies are impaired and thus ought to be added to the	The statewide freshwater Bacteria objective based on <i>E. coli</i> as the indicator bacteria is used in the 2018 Integrated
	Association	303(d) list of impaired water bodies, the Lahontan Water Board ought to compare sampling data against the State standard, rather than the more restrictive and unreasonable Lahontan standard. At the very least, impacted members of the public ought to be able to reference the sampling data against State Water Board standards in order to comment upon the reasonableness of the proposed listings, further necessitating the more detailed release of sampling results discussed above.	Report assessment to assess the available <i>E. coli</i> data for impairment of the REC-1 beneficial use. For most waterbodies, both <i>E. coli</i> and fecal coliform data are available, and both types of data were assessed against their respective water quality objectives. As mentioned previously, the water quality sampling data and information that was used for the Integrated Report are available and can be accessed via the Waterbody Fact Sheets found in Appendix H. Staff is available to assist the CCA with accessing this data.

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CCA-9	California Cattlemen's Association	CCA applauds the Lahontan Water Board prioritizing the "Evaluat[ion of] Bacteria Water Quality Objectives" as its top priority in the 2018 Triennial Review List, intending to "Evaluate Basin Plan fecal coliform objectives for surface waters and clarify their regulatory and assessment applications considering the State Water Board's recently adopted statewide bacteria objective for REC-1 beneficial use." It is our hope that, in undertaking that evaluation of bacteria water quality objectives, the Lahontan Water Board might finally adopt a more reasonable standard in line with the statewide standard (at least for waters other than Lake Tahoe). Regardless, any amendments made to the region's bacteria water quality objectives could alter the nature of a 303(d) listing based on alleged exceedances of bacteria water quality. Because the Evaluation of Bacteria Water Quality Objectives is imminent, we urge the Lahontan Water Board not to newly list water bodies as impaired on the basis of the current bacteria water quality standards, which may soon be outdated.	See response to CCA-2, above. It is worth noting that should the Basin Plan bacteria objective be revised in the future, a reassessment of the bacteria data used in the Integrated Report would occur in the future. This could lead to recommendations to modify the 303(d) listings currently being proposed for the 2018 Integrated Report.

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CCA-10	California Cattlemen's Association	CCA is aware that the Lahontan Water Board has already extended the comment deadline on the Integrated Report once, extending the deadline from July 15 to August 14. Given the sheer volume of the Integrated Report and the associated appendices, however, as well as the complexity and sheer size of the underlying data which supports the listing proposals, 60 days is insufficient for members of the public to meaningfully provide feedback on these impactful regulatory decisions. Therefore, CCA urges the Lahontan Water Board to further extend the comment deadline to September 11th and to make every effort to release the data relied upon in the Integrated Report in a digestible manner in advance of the new deadline to facilitate meaningful public input.	As stated by the commenter, staff already extended the 30-day public comment period once, adding an additional 30 days. The time extension was provided in response to stakeholder requests, and at the expense of meeting the State Water Resources Control Board's schedule for completing the Integrated Report process. To avoid falling further behind schedule, staff will not be extending the public comment period for a second time. Staff is available to assist the CCA and other interested stakeholders to access specific data associated with the Lines of Evidence. Additionally, there are other opportunities to provide input on the Integrated Report by attending the Water Board adoption hearing in November and by providing comments for the State Water Board approval process, that takes place following the Water Board hearing.
LCA-1	Lassen County Cattlemen's Association	Prior to the 2018 report, Susan River had been listed on the 303(d) list for mercury in each of its 3 waterbody sections and toxicity in 1 section (Headwaters to Willard Creek).	The commenter is correct that the Susan River was listed during previous Integrated Report cycles for both mercury (2006) and unknown toxicity (1994). At the time the listings occurred, the Susan River was not segmented and the listings applied to the entire river. Lahontan Water Board staff later broke the Susan River into three segments for the Integrated Report assessment and the original listings were applied to all three segments. During the 2018 Integrated Report assessment process, the break points for the Susan River segments were modified to better align the resulting segments with land uses in the area. This meant that some Lines of Evidence had to be moved to an adjoining segment, depending upon the location where the

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			data was collected. In the case of mercury, when the Lines of Evidence for mercury fish tissue data were assigned to the updated river segments for the 2018 Integrated Report, the result was a recommendation to de-list all three segments of the Susan River for mercury. Similarly, for unknown toxicity, whereas previously, all three segments were listed, with the new segmentation, only the lower two reaches retain the listing and the upper segment of the Susan River from the headwaters to Willard Creek is recommended for de-listing for toxicity.
LCA-2	Lassen County Cattlemen's Association	The 2018 report (after the re-segmentation of the Susan River waterbody) is essentially adding chloride, phosphorus, indicator bacteria, nitrogen, boron, sodium, sulfates, total dissolved solids, and turbidity to segments of the Susan River, mostly in Susanville to Honey Lake segment. What is the basis for changes in the 303(d) listing to include those substances as pollutants? Was it from a single sampling or a more extensive analysis?"	The proposed new 303(d) listing decisions are based on more than a single sampling effort, though the number of samples vary depending upon the analyte and river segment. In some cases, the decisions are based solely on new data assessed for the first time for the 2018 Integrated Report. For others, the decision is due to data collected and assessed for previous Integrated Report cycles combined with more recent data. As described in the Staff Report, Section 2.7, "TMDL Integrated Report Special Study" Data Analysis, an effort was made following completion of the previous Lahontan Region Integrated Report to identify waterbody/pollutant combinations that warranted further investigation to better characterize water quality at the selected locations. The Susan River was selected for conducting more frequent sampling than had occurred in the past. The water quality samples collected from the Susan River as part of this effort were analyzed for the following constituents: Nitrate, Nitrite, Total Nitrogen, Total Kjeldahl Nitrogen, Total Dissolved Solids and Turbidity. Staff collected water quality samples from the Susan River on numerous occasions between 2010 and 2017 and this data forms the basis for many of the new listings proposed for the Susan

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			River between Susanville and Honey Lake. For example, the proposed 303(d) listing for Nitrogen is based on water sampling conducted in June 2011, and quarterly, or more frequent sampling between April 2012 and February 2017. Information regarding when and where water quality samples were collected is available by accessing the data file associated with the Lines of Evidence, as described in more detail in the response to LCA- 3. Staff is available to assist the LCCA to access this data if need be.
LCA-3	Lassen County Cattlemen's Association	Relating to water sampling, is there a way for the public to access the dates, locations, sampling method, agency who performed the sampling, and results of the samples used in the determination of the 303(d) listed pollutants?	The water quality data used in the Integrated Report assessment is available online and can be accessed via the individual Lines of Evidence that are associated with each decision under the heading "Data Reference". Often, the raw data files attached to a given Line of Evidence contain more than the data for that particular waterbody/pollutant combination, including data for other waterbodies and pollutants. In general, the data files are organized by the entity that collected the data for a given water quality sampling program. For example, water quality data collected by Lahontan Water Board staff for the Surface Water Ambient Monitoring Program (SWAMP) will be contained in a single Microsoft Excel file that contains data for multiple waterbodies and Lines of Evidence.
			The data files include information regarding the agency that performed the sampling, where and when an individual water quality sample was collected, and the sampling methods. The data file also includes information regarding the laboratory methods used for the analysis and the quality assurance/quality control information for each sample and analyte. However, most pre-2006

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			assessments are not available online due to database system limitations.
LCA-4	Lassen County Cattlemen's Association	What, if any, beneficial uses of water does Lahontan believe are at risk in the Susan River?	Based on the water quality impairments identified for the Susan River, the beneficial uses most likely at risk are the Cold Freshwater Habitat (COLD) and Warm Freshwater Habitat (WARM) beneficial uses, and Municipal Supply (MUN). More specifically, the impairments identified for unknown toxicity and turbidity are two factors that could potentially impair the COLD and WARM beneficial uses and turbidity can impair the MUN beneficial use. Additionally, the REC-2 beneficial use may be impaired due to impacts to aesthetics associated with high turbidity.
BOS-1	Rick Pucci, Chairman, Inyo County Board of Supervisors	The Lahontan Regional Water Quality Control Board Integrated Report draft staff report should consider the existing legal framework established by Inyo County and its residents to protect water and land uses and their associated economic, habitat and aesthetic benefits. The Inyo/ Los Angeles Long-Term Water Agreement requires that water deliveries to Los Angeles-owned lands for irrigation, habitat and recreation continue. Maintaining water use on these lands provides economic opportunities for ranching and farming in the County in addition to enhancing recreation, aesthetics, air quality, and habitat.	The Lahontan Water Board respects any pre-existing legal agreements between stakeholders in the Lahontan Region. While the Inyo County Board of Supervisors are right to be concerned about any action that might affect the Long-Term Water Agreement (LTWA), the Lahontan Water Board Integrated Report does not in and of itself affect such an agreement. Decisions to recommend waterbodies as additions to the 303(d) list are based on assessments of high-quality data which are found to be exceeding designated water quality objectives. The Integrated Report is not a regulation. Adoption of the Integrated Report does not alter water deliveries to Los Angeles-owned lands, nor does it shutter economic, habitat or aesthetic benefits associated with such water deliveries. At the core of the Integrated Report is the research question: "Are water quality objectives being met?", and the report is a compilation of the answers to this question for the hundreds of distinct surface waters found in the Lahontan Region. The Integrated Report is a data analysis exercise which has no immediate impacts to conditions on the ground.

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BOS-2	Rick Pucci, Chairman, Inyo County Board of Supervisors	The LTWA also requires the continuation of sustainable uses, including livestock grazing and agriculture. Irrigation is also needed to meet these goals. Because of this, it is imperative that any plan proposed by Lahontan carefully consider these uses and how they can continue as required by the LTWA.	Please refer to comment response BOS-1.
BOS-3	Rick Pucci, Chairman, Inyo County Board of Supervisors	Protections of irrigated lands are based on vegetation conditions and land uses that existed in 1981-1982. Altering the irrigation duty, water management (if it degrades vegetation conditions), or uses of irrigated lands to accomplish water quality objectives potentially could violate the existing legal agreements between LADWP and the County.	Please refer to comment response BOS-1.
BOS-4	Rick Pucci, Chairman, Inyo County Board of Supervisors	Finally, The [sic] indicator bacteria dataset used for the draft Integrated Report spans parts of 2012 to 2016 with the majority of data collected in 2014 and 2015. This period included extreme and historic drought conditions. The final report should assess the available water quality data accounting for the abnormally low creek flow in those years. Additional data from years of normal and above normal runoff should be added to the dataset to assess inter-annual variability in contaminant levels.	The data solicitation deadline for the 2018 Integrated Report was May 3, 2017 at 5:00 p.m. Any water quality data collected and submitted to the California Environmental Data Exchange Network (CEDEN) on or before this time and date was used in the 2018 report. The previous Integrated Report the Lahontan Region participated in was during the 2012 listing cycle, meaning that the majority of new data assessed in the 2018 Integrated Report was collected between the end of the 2012 data solicitation window and May 3, 2017 (the end of the 2018 data solicitation window). Inyo County waterbodies identified for the first time on the 303(d) List and 305(b) Report are based on data collected between the closure of the 2012 data solicitation window and the closure of the 2018 Report data solicitation window. For much of this time period California experienced historic

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Number			drought, and the dataset available for the 2018 report is likely affected by drought conditions. Inyo County waterbodies identified during previous Integrated Reports include data collected prior to the recent historic drought. While volume of flow in a waterbody may be an important consideration, it is not the task of the Integrated Report to identify the cause of water quality impairments - rather the goal of the report is to determine whether water quality objectives are being met or are exceeded. Once a water quality impairment has been determined through the Integrated Report process and a waterbody has been added to the 303(d) list, Water Board staff begin separate processes to (1) prioritize all listings and identify those that
			staff will begin addressing, (2) take steps to characterize the impairment for the highest priority waterbodies, (3) identify and select an approach to improve conditions, and (4) implement the selected approach. It is during Step 2 in this multistep process that conditions such as flow may be analyzed with respect to specific pollutant impairments. Additionally, each of these steps involves significant stakeholder/public participation and opportunities to provide input.

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BOS-5	Rick Pucci, Chairman, Inyo County Board of Supervisors	Multiple legal judgements and settlements govern LADWP's management and distribution of surface water for irrigation in the Bishop area. The County supports efforts to remediate impaired water quality and offers the following information for context as LRWQCB proceeds with the Vision Project on Bishop Creek and associated waters. Bishop Creek flows in 2014 and 2015 were the lowest and 3rd lowest flows measured since 1904. It is not known if the low flow volumes, particularly in west Bishop, influenced the water quality exceedances measured during that period. As stated previously, additional data from years of normal and above normal runoff should be added to the dataset to assess inter-annual variability in contaminant levels. The 1915 Chandler Decree regulates flows in Bishop Creek and water storage in the upstream South Lake and Lake Sabrina reservoirs by setting minimum flows above the North and South Forks of Bishop Creek for the months of April through September. The Chandler Decree and the operation of the Bishop Cr. bypass to divert potentially damaging high flows from the creek result in relatively consistent irrigation deliveries and seasonal flows in the two branches of Bishop Creek. The 2012-2016 drought was an exception to the general trend due	The Lahontan Water Board appreciates Inyo County's support of efforts to improve water quality in Bishop Creek. Please refer to response to comments BOS-1 and BOS-4. Water Board staff also appreciates the context provided by the County regarding water issues and agreements in the Bishop watershed. Vision Project staff will work closely with Inyo County representatives and interested stakeholders in the Bishop watershed while drafting plans to improve Bishop Creek's water quality.

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		to a combination of diminished reservoir storage and atypical management of flow diversions by LADWP. That unusual set of circumstances led to historically low flows in Bishop Creek and decreased irrigation in the west Bishop area.	
		The 1940 Hillside Decree 3 regulates LADWP-pumped groundwater and artesian wells on the Bishop Cone (greater Bishop area). The combined LADWP extraction of groundwater must be less than the amount of water uses for irrigation on Bishop Cone lands (uses include losses in delivery ditches and stockwater consumption). LADWP's uses have averaged approximately 25,000 acre-ft/yr on the Bishop Cone over the past 25 years. The relatively constant pumping in the Bishop area, even in drought years, provides for relatively stable grazing management and water supply in ditches to lands that can be supplied by wells. Any water management alterations included in a plan to improve water quality on Bishop Creek can have impacts on this balance.	
ZS-1	Zachary Smith	Please explain why the Integrated Report proposes to use the Water Quality Control Plan for the Lahontan Region (Basin Plan) standard for fecal coliform as one of the criteria to determine impairment?	Clean Water Act (CWA) section 303(d) requires states to identify waters that do not meet applicable water quality standards (CA Listing Policy, Section 1). Water quality standards and control measures for surface and ground waters of the Lahontan Region are contained in the Water

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ZS-2	Zachary Smith	It is my understanding that the Lahontan Board's bacterial standard of 20 CFU/100mL is an improper basis for listing determinations? Is this true? If so, can the Lahontan Water Board adopt a more reasonable standard in line with the statewide standard?	Quality Control Plan for the Lahontan Region (Basin Plan). The Basin Plan designates beneficial uses for waterbodies and establishes water quality objectives, waste discharge prohibitions, and other implementation measures to protect those beneficial uses. The fecal coliform water quality objective is a designated objective in the Basin Plan and, as such, has been assessed as an applicable water quality objective in the 2018 Integrated Report. The fecal coliform water quality objective is an applicable objective contained in the Basin Plan (see comment response ZS-1). The objective provides a basis for determining water quality impairments from bacteria in the Lahontan Region. The Water Board has identified evaluating the fecal coliform water quality objective as a top priority during the November 2018 Triennial Review of the Basin Plan. The evaluation project began in July 2019, but any outcomes of this project will not affect the assessments made in the 2018 Integrated Report. If the outcomes of the reevaluation project result in changes to water quality objectives contained in the Basin Plan, any such changes will apply to a future iteration of the Lahontan Region's recommendations for the Integrated Report.
ZS-3	Zachary Smith	Summer months are an extremely busy time of year for the ranch and farming community. It is hard to get the day to day work that needs to be accomplished done on our operations, let alone digest and respond to the Integrated Report. I am appealing to the Lahontan Water Board to extend the comment deadline and in the meantime, make an effort to reach out to the ranch and farm families and their	Lahontan Water Board staff recognizes that summer months are a critical time for ranchers and those who work in the farming industry. Staff also recognizes that the Integrated Report is a large document that takes significant time to delve into and digest. The Water Board granted a thirty (30) day extension to the comment period after the July 2019 Water Board meeting in Bishop at the request of the Inyo County Board of Supervisors. The time extension was granted to provide time for stakeholders to further develop any comments they might have and was

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		employees who will be directly impacted by the listing proposals in the Lahontan Region. You are welcome to visit my ranch anytime to discuss this very important matter.	done so at the expense of meeting the State Water Resources Control Board's schedule for completing the Integrated Report process. Water Board staff has also opened a line of contact with those in the ranching community in order to share information regarding the Integrated Report, such as the September 5, 2019 email sent to Mr. Smith (the commenter) to discuss the contents of this comment letter. Mr. Smith has not replied to the September 5, 2019 staff email.
C/GR-1	Maria and Matt Kemp	The Lahontan Regional Water Control Board fecal coliform standard is an unfair, unrealistic and inappropriate standard to determine impairment of the proposed waters. In areas where ranchers have instituted best management practices to cooperate with Lahontan Water Board Staff, the standard still cannot be met. The standard put ranchers in the Lahontan region at a distinct disadvantage to ranchers in rest of the state and country. It is not necessary to meet this standard to maintain public health and protect beneficial uses. Why is Lahontan Water Board Staff using this unreasonable standard instead of using the far more realistic and sustainable State or Federal E-Coli standard?	See response to CCA-2, above.

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C/GR-2	Maria and Matt Kemp	Should Lahontan Water Board Staff enforce the unattainable fecal coliform standards and implement practices to mitigate water impairments, CEQA may be required. If new practices include fencing, which in many areas would require clearing large shrubs and trees and other vegetation, there will be a direct negative impact on the environment, the wildlife and bird habitat.	Completion of the Integrated Report does not in and of itself result in requirements for new measures or changes in ranching practices. Rather, completion of the Integrated Report is a requirement of the federal Clean Water Act to conduct a periodic assessment of the available water quality data to determine whether waterbodies are meeting applicable water quality objectives. When a waterbody is placed on the 303(d) list, it is an indication that water quality objectives are not being met for a given pollutant in a given waterbody. Being placed on the 303(d) list does not automatically or immediately trigger requirements to address the water quality impairment.
			CEQA generally applies to "discretionary projects" "approved" by a public agency. The Regional Board's approval of a resolution is not an "approval" under CEQA because it does not commit the Regional Water Board to any "definite course of action" "regarding a project" within the meaning of the CEQA Guidelines. (Cal. Code Regs., tit. 14, § 15352, subd. (a).) The Regional Board's proposed 303(d) list, while formally "approved" by resolution, constitutes a recommendation to State Board, who then creates a proposed 303(d) list to recommend to U.S.EPA. U.S. EPA then conducts an independent review of the state's recommendations and either approves, or disapproves, the state's proposed listings. (Id., § 303(d)(2).) The Regional Board is not bound to any definite course of action from that process.
			The Regional Board's 303(d) listing recommendations does not constitute a "project" under CEQA because such action does not have potential to result in a "direct physical change in the environment, or a reasonably foreseeable indirect physical change on the environment." (Pub. Res.

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			Code § 21065). The Integrated Report process does not make any commitment to develop any particular Total Maximum Daily Load (TMDL) or other regulatory action. Actions to address a water quality impairment will be determined at a later date by the Regional Water Board. Such action is an uncertain future project that may or may not be undertaken by a Regional Water Board.
			There are several steps that must occur following adoption of the Integrated Report and prior to any on-the-ground requirements being implemented in response to a303(d) listing. 303(d) listings must first be prioritized, as the Lahontan Water Board does not have the resources to address all 303(d) listings. In the past staff, in part, used the Guidelines for Prioritizing Listed Water Bodies (available at the Lahontan Region TMDL webpage) to assist in this process. Following prioritization, staff evaluates and selects effective approaches to address impairments for a limited number of high-priority waterbodies. Both evaluation and selection of approaches to address an impairment involve stakeholder/public input and participation.
			The 2018 Triennial Review of the Basin Plan prioritized an effort to evaluate the Lahontan Region's bacteria water quality objective. Should the Basin Plan bacteria objective be revised in the future, the bacteria data used in the Integrated Report plus any new data would be reassessed and compared to the revised bacteria objective. This reassessment could subsequently lead to recommendations to modify the 303(d) listings currently being proposed for the 2018 Integrated Report.

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C/GR-3	Maria and Matt Kemp	Is Lahontan Water Board Staff considering all negative environmental impacts that would occur should hundreds and hundreds of miles of fencing be implemented? Who would be responsible for a CEQA document? If the grazing operations are responsible financially for CEQA the cost will be far greater than our small operations can financially handle.	See response to comment C/GR-2. As stated, above, completion of the Integrated Report does not automatically or immediately result in requirements for new measures or changes in ranching practices. Such actions are beyond the scope of the Integrated Report.
C/GR-4	Maria and Matt Kemp	Another proposed idea for water management is holding ponds at the bottom of our meadows. These ponds would now be classified as stock water ponds and would need to be registered with the state. Digging with heavy machinery to this degree will create an environmental catastrophe and this will also completely negate the return flows that the DWP mandates in our management plans thus negating our binding agreements with the DWP.	As discussed in the response to comment C/GR-2, it is speculative to consider what measures or actions may be required in the future to address 303(d) listings.
C/GR-5	Maria and Matt Kemp	We request that any further communication include us as lessees directly. It is the lessees that will ultimately be responsible for implementing any new management practices, and we have never been consulted by your board or staff. With that in mind we request a further extension of comments and request a stay on any enforcement of the standards being applied until the legal questions of the impact to the LTWA, and if CEQA will be triggered are	See response to comment C/GR-2. There are no new management measures or other implementation requirements associated with completing the Integrated Report process. Any action or new regulatory requirement intended to address the proposed 303(d) listings for waterbodies in the Inyo/Mono area would occur in the future and would include stakeholder input and participation in the Water Board's decision-making process. That would include focused communication and outreach to Los Angeles Department of Water and Power lessees, and other interested persons. Additionally, the Integrated Report process does not include any

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		answered, and until your board and staff has met in Bishop with the lessees.	enforcement action or require CEQA review.
			Water Board staff has communicated directly with those in the ranching community in order to share information and better understand stakeholder concerns regarding the Integrated Report, such as the September 5, 2019 email sent to Mr. and Mrs. Kemp (the commenter) to discuss the contents of this comment letter. Staff spoke with Mr. Kemp via telephone on September 20, 2019 to discuss the concerns raised in his comments.
S&M-1	Scott Kemp S&M Kemp Ranch	If the Lahontan Regional Quality Board applies the same standard for FC and E coli that is used for Lake Tahoe, it will be very difficult for most ranchers to comply. Is it the objective of the Board to remove cattle from irrigated lands?	As discussed in the response to comments CCA-2, above, the Water Board is obligated to use both the Basin Plan fecal coliform water quality objective (which applies to waters throughout the Lahontan Region) and the statewide <i>E. coli</i> water quality objective for the 2018 Integrated Report. Additionally, there are no new management measures or other requirements associated with completing the Integrated Report process, as explained in the response to comment C/GR-3, above. Any action or new regulatory requirement meant to address the proposed 303(d) listings for bacteria for waterbodies in the Inyo/Mono area would occur in the future and would include extensive stakeholder outreach and involvement. It is through such collaboration that the Water Board's hopes to achieve its objective of protecting the quality and the beneficial uses of the region's waters.

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S&M-2	Scott Kemp S&M Kemp Ranch	Why not use the State standard?	The Lahontan Water Board is using the statewide <i>E. coli</i> -based bacteria water quality objective to assess the available <i>E. coli</i> data for the 2018 Integrated Report. The Water Board is also required to use the fecal coliform-based bacterial water quality objective prescribed by the Water Quality Control Plan for the Lahontan Region (Basin Plan) (see Basin Plan, Chapter 3 Water Quality Objectives, Page 3-4). The CWA requires the state to evaluate the condition of its waters against all existing water quality objectives that are in effect.
S&M-3	Scott Kemp S&M Kemp Ranch	Has the Board shown how this standard might affect the economies of these rural areas; ecosystems, wildlife, dust?	The Integrated Report does not in and of itself result in requirements for new management measures or changes in ranching practices. Any action or new regulatory requirement meant to address 303(d) listings for waterbodies in the Inyo/Mono area are outside the scope of the Integrated Report, would occur in the future, and would include stakeholder outreach and involvement in the decision-making process. Therefore, the economies of rural areas were not considered for the Integrated Report. See response to comment C/GR-2 for additional details.
S&M-4	Scott Kemp S&M Kemp Ranch	We grow grass for elk, deer, rabbits, etc. Has the LADWPInyo County Long Term Water Management Agreement been taken into consideration. If so, How? It controls irrigation. Would the Board be responsible for a CEQA document to change the LTWMA?	See response to comment C/GR-2. Additionally, completing the Integrated Report in and of itself does not trigger any changes to lessee management requirements or alter implementation of the LADWP-Inyo County Long Term Water Management Agreement.
TT-1	Thomas J. Talbot	I am very disturbed that as an individual who will see directs impacts from these prosed [sic] changes, I was not notified by the Lahontan Water Board of the Integrated Report. In fact, none of us that will be directly affected by these listings	In response to a request from the Inyo County Board of Supervisors, the comment period was extended an additional 30 days and notification emails were sent to Tribal governments, cities, and counties and to federal USFS representatives in the Lahontan Region. Those messages requested that the information related to the

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		were notified. It is only because of the efforts of our local NRCS representative that we were even advised of the proposed actions and the deadline to submit comments.	Integrated Report be shared with other interested parties. The original notice and the notice of an extension were posted online and were sent to all persons on our email subscription list. To subscribe and receive notices of projects of interest to you, please visit the Lyris_Subscription Page . Completion of the Integrated Report is not a regulation and does not result in requirements for new management measures or changes in ranching practices. Consequently, there are no direct impacts to ranchers or cattle operations that would result from the proposed new 303(d) listings.
TT-2	Thomas J. Talbot	It has been difficult in a short amount of time with the complexity of the documents to determine when data was collected, at what locations it was collected, and how it relates to the Integrated Report. I believe that because of these factors alone it only makes sense to extend the comment period for at least another month to give us an opportunity to dig deeper and gain further understanding of the potential ramifications of the Integral Report [sic].	Staff recognizes the difficulty that stakeholders may encounter when trying to locate the water quality data specific to a given Integrated Report decision. That information is available via the Lines of Evidence associated with the fact sheets in Appendix H. Staff is available to assist you in accessing the data. Additionally, the 30-day public comment period was already extended once in response to stakeholder requests, and at the expense of meeting the State Water Resources Control Board's schedule for completing the Integrated Report process. Staff will not be extending the public comment period for a second time.
TT-3	Thomas J. Talbot	The Lahontan Board's bacterial standard of 20cfu/100 ml is an improper basis for listing determinations.	See the response to CCA-2, above. The Lahontan Water Board is obligated to use the Basin Plan fecal coliform water quality objective until such time that the Basin Plan is amended and the bacteria objective revised.
TT-4	Thomas J. Talbot	The Lahontan Water Board ought to compare sampling data against the State standard rather than the more restrictive and unreasonable Lahontan standard.	See the response to CCA-2, above. The statewide <i>E. coli</i> water quality objective is used to assess available <i>E. coli</i> data for the 2018 Integrated Report, in addition to the Basin Plan's fecal coliform objective, as required by the Clean Water Act (CWA) and the California Listing Policy. The later states in Section 3.3 that "In the absence of a

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			site-specific exceedance frequency, a water segment shall be placed on the section 303(d) list if bacteria water quality standards in California Code of Regulations, Basin Plans, or statewide plans are exceeded using the binomial distribution as described in section 3.2". The Basin Plan contains the fecal coliform bacteria objective, which is required to be used.
TT-5	Thomas J. Talbot	303 [d] listing amendments for indicator bacteria ought not to be finalized until the Lahontan Water Board undertakes the Evaluation of Bacteria Water Quality Objectives under its Triennial Review.	See the response to CCA-2, above. The Clean Water Act and the California Listing Policy require that all available water quality data be assessed for the Integrated Report against all applicable water quality objectives. Additionally, the 2018 Triennial Review of the Basin Plan prioritized an effort to evaluate the Lahontan Region's bacteria water quality objective. Should the Basin Plan bacteria objective be revised in the future, the bacteria data used in the Integrated Report plus any new data would be reassessed and compared to the revised bacteria objective. This reassessment could subsequently lead to recommendations to modify the 303(d) listings currently being proposed for the 2018 Integrated Report.
TT-6	Thomas J. Talbot	What is the incidence of disease in humans that have had contact with the impaired waterways and what are the specific agents causing the disease.	The statewide freshwater Bacteria water quality objective (i.e., 100 cfu/100 mL <i>E. coli</i>) is based on epidemiological studies conducted by the U.S. EPA that are summarized in the 2012 Recreational Water Quality Criteria report ¹ . As described by the U.S. EPA report, the recreational criteria for pathogens are meant to protect the water contact recreation (REC-1) beneficial use and are based on the risk of illness to an individual swimmer. The estimated illness rate corresponding with the 100 cfu/100 ml <i>E. coli</i> bacteria objective is 32 illnesses per 1,000 water contact recreators. Unfortunately, there is no readily available information regarding the incidence of bacteria-related disease in humans for waterways in Inyo and Mono

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			counties. 1 U.S. EPA. 2012. Recreational Water Quality Criteria. Available at https://www.epa.gov/wqc/2012-recreational-water-quality-criteria.
TT-7	Thomas J. Talbot	Has any data been collected on the impaired waterways since the 2014-2015 years and if so where is that data.	The timeframe of collected data varies depending on the waterbody. The 2018 Integrated Report assessment includes both previously assessed water quality data and new data that is being assessed for the first time. The newly assessed water quality data generally covers a time frame starting in 2010 and extending through early 2017, as the cutoff date for submitting new data for the 2018 Integrated Report was May 3, 2017. For many waterbodies, including for some located in Inyo and Mono counties, data collected after 2014-2015 were available and were utilized in the Integrated Report. Information for a given waterbody/pollutant combination regarding when and where water quality sampling took place is available and can be accessed via the Water Body Fact Sheets in Appendix H. Water quality data collected after the May 3, 2017 data submittal deadline will be assessed in a subsequent Integrated Report cycle.
TT-8	Thomas J. Talbot	Are you aware that all ranchers in our area have Ranch Management Plans and that water quality is addressed in these plans?	Staff are aware that ranchers in the Inyo/Mono area, including LADWP lessees, are required to develop and implement Ranch Management Plans that include measures to address water quality.
TT-9	Thomas J. Talbot	Are you aware of the Long Term Water Agreement between Inyo County and the DWP and how required changes to irrigation practices could affect this Agreement.	Multiple commenters have expressed concerns regarding how the Integrated Report assessment would impact the Long Term Water Agreement or could result in changes to irrigation practices. The Integrated Report does not in and of itself result in requirements for new management measures or changes in ranching practices. Several actions must take place following adoption of the

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			Integrated Report prior to the development of implementation measures to address new 303(d) listings. The 303(d) listings must first be prioritized, as described in the Guidelines for Prioritizing Listed Water Bodies (available at the following website: Link to Prioritization Document). Following prioritization, staff then begins to evaluate approaches for addressing impairments for a limited number of high-priority waterbodies. These steps involve stakeholder/public input and participation.

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Number TT-10	Thomas J. Talbot	Have you considered the beneficial uses of water as it applies to Agriculture and Grazing and what impact these proposals could have on these 2 areas?	See responses to C/GR-2 and TT-9, above. The recommendations of the Integrated Report do not have impacts to the beneficial uses of surface waters. Before performing Integrated Report assessments staff considers all beneficial uses assigned to a surface water to identify the most sensitive water quality objectives to apply for Integrated Report purposes. Generally, the most sensitive beneficial uses of water assessed in the Integrated Report are Cold Freshwater Habitat (COLD), Municipal and Domestic Supply (MUN), and Water Contact Recreation (REC-1). These beneficial uses are usually identified for assessment because they are protected by the most stringent water quality objectives and therefore are the most protective of water quality. In many cases the most sensitive beneficial use is COLD. Agricultural Supply (AGR) is an important beneficial use of water, however the AGR beneficial use is generally supported despite fluctuations in water quality and is thus less susceptible to impairment when compared with COLD, MUN or REC-1 uses. Because AGR is less susceptible to impairment, assessment of this beneficial use in many instances during the Integrated Report purposes is not appropriate. For waters that appear to be impaired by pollutants such as sodium or boron, the AGR beneficial use is considered during the assessment process. These types of pollutants can have direct effects on agricultural irrigation and grazing uses and are
			impaired by pollutants such as sodium or boron, the AGR beneficial use is considered during the assessment process. These types of pollutants can have direct effects

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TT-11	Thomas J. Talbot	Are you aware that on most of the grazing areas that will be impacted, cattle are only in the area for a portion of the year thereby minimizing the impact to water quality when cattle are not present.	See response to TT-9, above. Any future effort to address the proposed listings may consider factors such as those mentioned by the commenter related to the seasonality of cattle grazing.
SAR-1	Gabe Fogarty Spainhower Anchor Ranch	Why is the Spainhower Anchor Ranch Ditch included on the 303D list for the Lahontan Region? This seasonal ditch spreads water from between ¼ of a mile to approximately 1 mile from its source and is strictly used for stock water and irrigation water delivery with all flows dissipating in irrigated pastures with no water returning to any other water way. The seasonal water for this ditch originates in a cement section of the Los Angeles aqueduct and is listed as having a turbidity issue. The clarity of the water actually improves as it progresses down the length of the ditch as it gets farther from the LAA.	The water quality data available for the Spainhower Anchor Ranch Ditch was submitted by the Owens Valley Indian Water Commission (OVIWC) to the U.S. EPA water quality database. The OVIWC data was collected at several locations within and nearby the Lone Pine Paiute Shoshone Reservation, which is located just south of Lone Pine. The water quality data collected for the Spainhower Anchor Ranch Ditch, which flows through the reservation, includes turbidity, pH and dissolved oxygen. As per Section 6.1 of the State Water Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, all readily available data and information shall be evaluated, consequently, the data submitted by the OVIWC for the Spainhower Anchor Ranch Ditch were included in the Integrated Report assessment. Note that it is not unusual for channelized agricultural water conveyances to be assessed for the Integrated Report, as these water features can contain habitat for wildlife while also providing a means to deliver water for agricultural purposes.

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SAR-2	Gabe Fogarty Spainhower Anchor Ranch	How often is the turbidity test conducted? At what locations are the tests conducted?	The turbidity data submitted by the OVIWC for the Spainhower Anchor Ranch Ditch were collected either monthly or bimonthly between September 2010 and June 2013, with two additional sampling events in January and June of 2016. Two locations along the Ditch were sampled, one site near the point where the ditch flows onto the Lone Pine Reservation (cement structure north of Burkhardt and Quing-Ah intersection), and the other located near where the ditch flows off the Reservation (just southwest of the end of Quing-Ah). Both these sampling locations appear to be located upstream of where the Ditch enters the Spainhower Anchor Ranch property.
SAR-3	Gabe Fogarty Spainhower Anchor Ranch	What impacts does turbidity have in a seasonal irrigation water supply?	Turbidity is not likely to cause negative impacts for agricultural supply (AGR), however it could affect other beneficial uses, such as the COLD and WARM freshwater habitat beneficial uses. These aquatic life uses are applicable to the Spainhower Anchor Ranch Ditch, which falls under the "Minor Surface Waters" category in the Lower Owens Hydrologic Unit (see Basin Plan Chapter 2, Table 2-1. Beneficial Uses of Surface Waters of the Lahontan Region available at the following website: Link to Basin Plan Chapter 2).
SAR-4	Gabe Fogarty Spainhower Anchor Ranch	Why does Lahontan Regional Water Quality Board use a GM for fecal coliform of 20cfu/ 100 mL when the EPA standard is 200 cfu/100 mL? The EPA recommends not using the fecal coliform standard and focusing on the E. Coli GM of 126 cfu / 100 mL. Why is Lahontan Regional Water Quality Board using a standard of 100 cfu / 100 mL for E. Coli as well as a greatly increased fecal coliform standard?	See response to CCA-2, above. The Clean Water Act and the California Listing Policy require that all available water quality data be assessed for the Integrated Report against all applicable water quality objectives. The fecal coliform bacteria objective is in the Basin Plan and is required to be used. Regarding the applicable <i>E. coli</i> bacteria objective, the State Water Board adopted bacteria provisions for the protection of the REC-1 water contact beneficial use that apply statewide. The freshwater bacteria water quality objective adopted by the State Water Board is the 100 cfu/100 mL <i>E. coli</i> objective rather than the less protective

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			126 cfu/100 mL referenced by the commenter.
			There is an effort underway to evaluate the Lahontan Region's bacteria water quality objective, as noted on the 2018 Triennial Review Priority Project List, where this project is ranked at the top of the list. However, that effort has not been completed and the Lahontan Board cannot predetermine the outcome of that project. This means that the fecal coliform objective continues to be applicable throughout the region until the Basin Plan is amended, should that be the recommended outcome. Since the fecal coliform water quality objective is still applicable, the Lahontan Water Board is required to use this objective in its 2018 Integrated Report assessment.
SAR-5	Gabe Fogarty Spainhower Anchor Ranch	How are the beneficial uses of water overseen by this report calculated and where can we get a list of those calculations and values?	The Basin Plan identifies the beneficial uses that are designated for most named waterbodies in the Lahontan Region and for unnamed minor wetlands, minor surface waters, and unnamed springs, seeps and emergent wetlands. The designated beneficial uses are presented in Chapter 2, Present and Potential Beneficial Uses, Table 2-1 and are listed by Hydrologic Unit from north to south. Chapter 2 of the Basin Plan is available on the Water Board website here: Link to Basin Plan Chapter 2 The water quality objectives used to determine whether a given beneficial use is impaired for a specific pollutant are identified either in the Basin Plan directly or are based on available guidelines published by a variety of sources. Each Line of Evidence identifies the applicable water quality objective or evaluation guideline used for the assessment. This information can be found in the Line of Evidence under the Water Quality Objective/Criterion and/or Evaluation Guideline section. The references for

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			the evaluation guidelines are also available via links in the Line of Evidence. For narrative water quality objectives, the California Listing Policy in Section 6.1.3 describes the process used to select appropriate numeric evaluation guidelines to determine standards attainment or beneficial use protection for purposes of the Integrated Report assessment. Staff is available to assist with locating the data or information related to specific waterbodies or decisions.
CR-1	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	First, the Integrated Report proposes to use the Water Quality Control Plan for the Lahontan Region (Basin Plan) standard for fecal coliform as one of the criteria to determine impairment. As discussed below, the Lahontan Board should not utilize this standard to determine impairment considering the fact that the standard is currently under review to determine if it is appropriate to apply throughout the Lahontan Region.	All water quality objectives currently contained in the Basin Plan apply for assessment purposes. For this reason, the fecal coliform objective was used for assessment purposes in the 2018 Integrated Report. The 2018 Triennial Review identified a review of the Lahontan Region Basin Plan fecal coliform objective as the top planning priority for the next three years. The 2018 Integrated Report is a retrospective analysis of the ambient performance of surface waters against water quality objectives in the Region. The Lahontan Water Board recognizes the need to evaluate the fecal coliform objective and as such has made this review the top planning priority. However, the Lahontan Board cannot predetermine the outcome of that evaluation, and any potential changes to the Basin Plan stemming from the Triennial Review project will not come into effect before the 2018 Integrated Report is adopted. See response to CCA-2, above. It is worth noting that should the Basin Plan bacteria objective be revised in the future, a reassessment of the bacteria data used in the Integrated Report would occur in the future. This could lead to recommendations to modify the 303(d) listings currently being proposed for the 2018 Integrated Report.

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CR-2	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	Second, the Integrated Report erroneously states that the fecal coliform standard from the Basin Plan is associated with the municipal drinking water (MUN) beneficial use. This is incorrect. The Basin Plan specifically states as follows: "The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100ml." The fecal coliform standard is not related or associated with the MUN beneficial [sic], nor with any beneficial use for that matter. Nothing in the history of the development of the Basin Plan suggests that the standard was adopted to protect the MUN use, and nothing within the Basin Plan indicates that the fecal coliform standard is related to MUN. Notably, when the State Water Resources Control Board (State Board) adopted Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California (Bacteria Provisions), footnote 1 on page 2 specifically stated that the fecal coliform standard was of "general applicability," [sic] and did not state that it was related or associated with the MUN beneficial use. As such, it is erroneous for the Integrated Report to allege that this standard is tied to protecting the MUN beneficial use. Based	The fecal coliform water quality objectives for the Lahontan Region can be described as generally applicable to waters of the region. For Integrated Report assessment purposes, the Lahontan Board identifies the most protective appropriate beneficial use designated for a waterbody and use water quality objectives contained in the Basin Plan to determine attainment of these uses. In past assessment cycles, the Lahontan Region has applied the fecal coliform bacteria objective to the Water Contact Recreation (REC-1) beneficial use because the REC-1 use was identified as the most protective use of human health in ambient surface waters. In 2018, the State Water Board adopted the Bacteria Provisions, which establish numeric bacteria water quality objectives for the REC-1 beneficial use and, apply to applicable waters within the Lahontan region that have the REC-1 beneficial use. The numeric <i>E. coli</i> bacteria water quality objectives do not supersede the fecal coliform bacteria objectives in the Lahontan Region. Pursuant to 303(d) of the Clean Water Act, each state must identify waters that do not meet, or are not expected to meet applicable water quality standards. The fecal coliform water quality objective was not superseded by the Bacteria Provisions and therefore, it must be considered in the recommended listing. The Clean Water Act requires that the Water Board protect all beneficial uses of a waterbody, whether it is a present or future beneficial use, or one that existed at any time since November 26, 1975. Consequently, it is appropriate for the Water Board to protect the MUN beneficial use and
		and did not state that it was related or associated with the MUN beneficial use. As such, it is erroneous for the Integrated Report to allege that this standard is tied to	all beneficial uses of a waterbody, whether it is a present or future beneficial use, or one that existed at any time since November 26, 1975. Consequently, it is appropriate

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		receiving waters. Rather, those seeking to use surface water for MUN purposes must comply with U.S. EPA's Surface Water Treatment Rules.	with 40 Code of Federal Regulations part 141.71 which indicates that to avoid filtration, source water quality conditions must have a fecal coliform concentration equal to or less than 20/100mL.
			Please also refer to the response to CCA-2, above. Waters recommended as additions to the 303(d) List because of a bacteria impairment based on assessment of fecal coliform data have been classed as low priority pending the outcomes of the Triennial Review bacteria objective evaluation. Should the Basin Plan bacteria objective be revised in the future, a reassessment of the bacteria data used in the Integrated Report would occur. Reassessment of data may lead to recommendations to modify the 303(d) listings currently proposed for the 2018 Integrated Report.
CR-3	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	Notably, the Lahontan Region's fecal coliform objective of 20 colony-forming units (cfu) per 100 millimeters (i.e., 20/100 ml) was adopted to protect Lake Tahoe. However, when the Water Quality Control Plan for the Lake Tahoe Basin and the rest of the region were combined, this objective was inappropriately applied to all waters within the Lahontan Region. At times, Lahontan Board staff allege that the 20/100 ml fecal coliform standard is necessary to protect the region's high quality waters. Statements such as this suggest that the Lahontan Board considers this standard to	The water quality objective for coliform organisms in the 1971 Interim Basin Plan for several waters, including the East Walker River was "None attributable to human wastes." The 1975 Basin Plan applied a 20/100mL fecal coliform objective to REC-1 waters in the East and West Fork Walker River watersheds, the Lake Tahoe Basin, the East and West Fork Carson River watersheds, the Truckee River watershed, the Eagle Lake watershed, and the Susan River watershed. Further iterations of the Basin Plan adopted in the 1990's expanded the fecal coliform objective regionwide. Subsequent substantial sampling efforts have shown that many of the waters of the region attain the 20/100 mL objective.
		be an anti-degradation standard – not a standard for the protection of a specific beneficial use. However, to our knowledge,	The fecal coliform water quality objectives for the Lahontan Region can be described as generally applicable to waters of the region. The Water Quality Control Plan for

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		there is no historical data or information available to show that all waterbodies in the Lahontan Region maintained this level of coliform in 1968 or in 1975 when the antidegradation policy and the Clean Water Act were adopted, respectively. Further, based on recent data and information as well as anecdotal information, it is highly unlikely that in areas of the region where cattle grazing has occurred for generations this standard would have been met. Accordingly, the Lahontan Region's generic application of this standard region-wide as an "antidegradation standard" is not supported and is inappropriate.	the Lahontan Region (Basin Plan) currently contains a water quality objective for bacteria that applies to all waters in the Lahontan Region and is based on fecal coliform concentrations (see Basin Plan, Chapter 3, Water Quality Objectives, Page 3-4). The 2018 Triennial Review of the Basin Plan prioritized an effort to evaluate the Lahontan Region's bacteria water quality objective. While underway, that effort has not been completed and the Water Board cannot predetermine the outcome of that project. Comments on the evaluation and appropriateness of the current fecal coliform objective are outside of the scope of the Integrated Report. The triennial review project will include a public process.
CR-4	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	Moreover, as we have learned from implementation of the Grazing Conditional Waiver that applies to ranchers in the Bridgeport Valley, the 20/100 ml fecal coliform standard is unrealistic and virtually impossible to meet in areas of the region where grazing occurs. In conjunction and cooperation with the University of California Davis Rangelands program, Centennial Livestock and other grazing operations have been monitoring for fecal coliform and E. coli in the Bridgeport Valley for a number of years. The monitoring locations have been selected to identify contributions from the various sources of bacteria within the Bridgeport Valley: grazing, recreation (e.g., campers), and residential. The data show	Please refer to response to comments ZS-1, ZS-2, and CR-3. The bacteria water quality objective evaluation project is underway, and this process will include public participation. Integrated Report staff cannot presuppose the outcome of the evaluation project or any other future action by the Board, however. The fecal coliform objective is a water quality objective currently in effect in the Lahontan Region and therefore must be assessed as an applicable objective for Integrated Report purposes.

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		that it is nearly impossible for waters downstream of all of these uses to meet the Lahontan Region standard of 20/100 ml. More importantly, it is not necessary to meet this standard to protect public health. The State Board adopted an E. coli standard in the Bacteria Provisions that applies to areas where Recreational Beneficial uses [sic] occur, which is significantly less restrictive than the 20/100 ml standard applied here.	
CR-5	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	With respect to Centennial Livestock's Bridgeport Valley operations, the grazing lands are private and the public has limited to no access to the water bodies within Centennial's property boundaries. Further, there are very limited opportunities for REC-1 beneficial uses (i.e. ingestion), and most recreational uses are more aligned with REC-1 (i.e. fishing), or are limited water contact recreation uses. The circumstances here are similar to ranches in other parts of the Lahontan Region. Thus, the application of the Lahontan Region's fecal coliform objective as it currently exists is inappropriate, unreasonable, and unnecessary to protect beneficial uses, and, more broadly, any waters outside of Lake Tahoe subject to this standard.	Please refer to response to comment ZS-1 for discussion regarding the applicability of water quality objectives assessed for Integrated Report purposes. Designated water quality objectives and beneficial uses apply regardless of the ability of the public to access a specific surface water. Access limitations to Lahontan Region surface waters do not exempt such waters from Integrated Report assessments. While Water Board staff recognize that the public has limited access to water located on Centennial Livestock properties, these waters flow downstream into waters that are held in the public trust. Furthermore, the waters are currently designated for the REC-1 beneficial use. The Clean Water Act requires that the Water Board protect all designated beneficial uses of a waterbody, whether it is a present or future beneficial use, or one that existed at any time since November 26, 1975. Waters in the Bridgeport Valley are currently designated with the REC-1 beneficial use. Consequently, it is appropriate for the

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			Water Board to protect the REC-1 beneficial use of these waters.
CR-6	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	On August 7, 2018, the State Board adopted recreational bacteria provisions that apply to all inland surface water bodies with the recreational beneficial useHowever, regardless of these actions, the Integrated Report proposes to use the questionable fecal coliform standard to determine impairments for all waterbodies throughout the Lahontan Region. The Integrated Report's continued reliance on the water quality objective of 20 cfu/100 ml is in clear contravention of these prior actions. Further, nothing within the State Board's Listing Policy mandates that the Lahontan Region use the existing standard (but questionable standard under review) during this listing cycle. Rather, the State Board's Listing Policy states: "[b]efore determining is water quality standards are exceeded, the Regional Water Boards have wide discretion establishing how data and information are to be evaluated," (See State's Listing Policy, section 6.1.5., pg. 22, emphasis	Please refer to the responses to comments ZS-2 and CR-1. The fecal coliform objective contained in the Lahontan Basin Plan is an applicable water quality objective for the 2018 Integrated Report. The Bacteria Provisions adopted by the State Water Board in 2018 specifically stated that the fecal coliform water quality objective contained in the Lahontan Region Basin Plan was not superseded by the new provisions, stating instead that the new provisions only are applicable when assessing the REC-1 beneficial use. The State Water Board recommended the Lahontan Water Board reevaluate its fecal coliform objective, and the Lahontan Water Board made this reevaluation its top priority during the 2018 Triennial Review. Section 6.1.5: Data Quantity Assessment Process, of the Listing Policy states: "Before determining if water quality standards are exceeded, the Regional Water Boards have broad discretion establishing how data and information are to be evaluated, including the wide flexibility to establish water segmentation, as well as the scale of spatial and temporal data and information that are to be reviewed." The commenter is incorrect in their assertion that this

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		added) Considering the State's and Lahontan Boards' recent actions, we find the use of the fecal coliform standard in this Integrated Report to be inappropriate and without merit.	section of the Listing Policy gives the Regional Boards "wide discretion" when determining which water quality objectives to include for assessment purposes. Section 6.1.5 gives the Regional Boards wide discretion when determining waterbody segmentation, data averaging periods, analysis quantitation concerns, binomial model statistical evaluation, and the evaluation of bioassessment or temperature data. This section does not give the Regional Boards the discretion to remove existing water quality objectives contained in their respective Basin Plans from the Integrated Report water quality assessment process. Section 6.1 of the Listing Policy states: "All readily available information shall be evaluated". The Lahontan Water Board must assess fecal coliform data collected from surface waters in the region to comply with §303 and §305 requirements of the Clean Water Act through application of the California Listing Policy.
CR-7	Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	Appendix A to the Integrated Report shows that there are 36 proposed new listings for Indicator Bacteria throughout the Lahontan Region. Twenty-three of the 36 are located in Inyo or Mono County where Centennial Livestock and its owners operate cattle grazing operations. Review of the Fact Sheets for these proposed listings show that all of the proposed listings rely either exclusively or primarily on exceedances of the fecal coliform standard to support being listed. For example, Convict Creek in Mono County is proposed to be added to the 303(d) list based an [sic] exceedance rate of 7 out of 35 log mean samples for fecal coliform even though there are zero	Please refer to the responses to comments CR-1, CR-6, and ZS-2. The fecal coliform objective contained in the Lahontan Basin Plan is an applicable water quality objective for the 2018 Integrated Report. The Water Board does not have discretion to remove existing water quality objectives from the assessment process. Regarding the Convict Creek example, both fecal coliform and <i>E. coli</i> data are available for assessment purposes. Assessment of the available data reveals that excursions of the fecal coliform objective exceed the allowable frequency stipulated by Table 3.2 of the Listing Policy, while there are no excursions of the <i>E. coli</i> objective. The result of this assessment is a recommendation to list

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		exceedances of the State Board's E. coli standards out of over 30 samples. Even more perplexing in this example is the fact that the exceedance rate for Convict Creek barely reaches the number of exceedances for fecal coliform necessary to list based on the Listing Policy's binomial approach.	Convict Creek as impaired by Indicator Bacteria based on the available fecal coliform water quality data. The Listing Policy Tables 3.1 and 3.2 provide a threshold with which to assess available assessment data. There are many cases where the number of exceedances of a water quality objective fall either just below or, as in this case, just above the thresholds provided, and these thresholds
		Moreover, many of the decisions for maintaining previous listings also rely primarily on exceedances of the fecal	provide guidance so that surface waters can be determined to either support or not support their designated beneficial uses.
		coliform standard rather than the E. coli standard. For example, Buckeye Creek's previous listing is being retained solely on	Using Buckeye Creek as an example, both the fecal coliform water quality objective and the <i>E. coli</i> water quality objective apply for bacteria assessments of this
		exceedances of the fecal coliform standard. When E. coli results are reviewed, it is shown that the E. coli standard is not	surface water, and data for both analytes are available for assessment. Both fecal coliform and <i>E. coli</i> are a type of indicator bacteria and are monitored in surface waters to
		exceeded at the level necessary to support listing on the 303(d) list. Consequently, using the fecal coliform standard to identify impairments presents an incorrect	determine the possible presence of illness-causing pathogens derived from contamination by fecal wastes. Because fecal coliform and <i>E. coli</i> are both indicator bacteria for the likely presence of pathogens, both fall
		assessment of the quality of waters throughout the Lahontan Region.	under the 'Indicator Bacteria' pollutant type in the Integrated Report. As such, and because data exists for fecal coliform and <i>E. coli</i> for Buckeye Creek, both analytes
		To rectify this inaccuracy, we recommend that the Lahontan Board direct staff to reevaluate all of the existing and proposed	are assessed in the 2018 Integrated Report to determine if the creek is impaired by bacteria. In this case, the fecal coliform data exceeds the allowable frequency stipulated
		new listings for indicator bacteria. In this reevaluation, Lahontan Board staff should compare only E. coli data and information to the applicable E. coli standards to	in Table 3.2 of the Listing Policy and thus supports the addition of Buckeye Creek to the 303(d) List because of an impairment by Indicator Bacteria.
		determine if impairment exists, and the Integrated Report should be revised appropriately.	Both fecal coliform and <i>E. coli</i> must be assessed (provided data is available) to accurately determine the bacterial quality of surface waters throughout the Lahontan Region.

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	Author Theresa Dunham, Somach Simmons & Dunn, on behalf of Centennial Ranch	we recommend that the Lahontan Board direct staff to revise the Integrated Report to exclude impairment determinations that are made primarily or exclusively on exceedances of the fecal coliform standard. The continued perpetuation and use of this standard undermines State and Regional Board actions directly related to reviewing the appropriateness of applying this standard to all waterbodies throughout the region. Until that review has been completed and the Lahontan Board has acted, the Lahontan Board should only use the E. coli standards as adopted by the State Board to determine if waterbodies are in fact impaired and thus properly the	Please refer to the responses to comments CR-1, CR-6, CR-7 and ZS-2. The fecal coliform objective contained in the Lahontan Basin Plan is an applicable water quality objective for the 2018 Integrated Report. The State Water Board Bacteria Provisions specifically do not supersede the fecal coliform objective and so the State Water Board Bacteria Provisions are not undermined by the assessment of the fecal coliform objective. Assessment of the fecal coliform objective is a requirement of the Clean Water Act administered via the California Listing Policy. Assessment of the fecal coliform objective does not undermine actions taken by the Regional Board. Fecal coliform data was assessed using the fecal coliform
		subject of listing on the region's 303(d) List. Such actions are necessary to maintain the viability of grazing throughout the Lahontan Region.	water quality objective stipulated in the Basin Plan to determine protection of the MUN beneficial use. <i>E. coli</i> data was assessed using the recently adopted Statewide bacteria provisions to determine the protection of the REC-1 beneficial use. Both assessments are performed under the umbrella of the Indicator Bacteria pollutant as both analytes indicate the potential for illness-causing pathogens to be present in a surface water. Both water quality objectives are in effect in the Lahontan Region and are required to be assessed per water quality assessment regulations stipulated in the Clean Water Act. Recommendations to add a waterbody/pollutant combination to the 303(d) List do not affect the viability of grazing in the Lahontan Region, rather these recommendations help identify and prioritize water quality issues that are affecting surface waters in the Region.

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LA-1	Linda Arcularius	I have reviewed the letter submitted to the Lahontan Regional Water Board and staff by Inyo County Chairman Rick Pucci. I am in complete agreement as to the issues raised by his letter in regard to the effect that the proposed actions that are the subject of this comment period could have on the execution of the Long Term Water Agreement.	Please refer to comment responses BOS-1 through BOS-5 for responses to the Inyo County Board of Supervisors comment letter.
LA-2	Linda Arcularius	As the proposals outlined in the Lahontan Region Proposed Revisions to the Clean Water Act Section 303 (d) / 305 (b) Surface Water Quality Assessment Report (Integrated Report) are considered for implementation it is extremely important an analysis be undertaken in regard to the effect they may have on the legal obligations of Inyo County and the City of Los Angeles in regard to their responsibilities for full implementation for the Long Term Water Agreement, including possible CEQA requirements.	Please refer to the response to comment BOS-1 and See response to comment C/GR-2. The Integrated Report is a required analysis to determine if water quality objectives are met or are being exceeded. The report does not result in any implementation measures in and of itself. There are no CEQA considerations with the Integrated Report as there are no physical changes made to the environment resulting from the reports' adoption. Once a water quality impairment has been determined through the Integrated Report process and a waterbody has been added to the 303(d) list, Water Board staff begin separate processes to (1) prioritize all listings and identify those that staff will begin addressing, (2) take steps to characterize the impairment for the highest priority waterbodies, (3) identify and select an approach to improve conditions, and (4) implement the selected approach. Additionally, each of these steps involves significant stakeholder/public participation and opportunities to provide input.
LA-3	Linda Arcularius	Meetings need to be held with the City of Los Angeles Department of Water and Power (DWP) personnel, the DWP ranch lessees, the County of Inyo, and the	Please refer to the responses to comments to BOS-1 and LA-2. The Water Board has already extended the public

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		Lahontan Regional Water Quality Board [sic] and staff before any Lahontan actions are taken. To this end, in order to hold these meetings and have them be meaningful, an extension to the comment period is needed.	comment period for the 2018 Integrated Report by thirty (30) days at the request of Inyo County. To keep to the schedule imposed on the Lahontan Region by the State Water Resources Control Board, the Lahontan Region will not be extending the comment period further. There will still be opportunity for stakeholders and members of the public to give oral comments in front of the Lahontan Water Board during the November Board meeting, and public comment will also be solicited during the State Water Board Integrated Report adoption process.
HA-1	Howard Arcularius, Manager, Arcularius Holdings LLC	I am requesting that your communication with affected parties and governmental agencies, including Inyo and Mono County, be greatly improved in the future so that there can be a process in place that results in informed decision making by all parties.	Representatives from Inyo and Mono Counties were made aware of the Integrated Report comment period in spring of 2019. The Integrated Report occurs in the Lahontan Region every six years, with the previous iteration occurring in 2012. Water Board staff has opened a line of communication with those in the ranching community to share information regarding the Integrated Report, such as the September 5, 2019 email sent to Mr. and Mrs. Arcularius (the commenters) to discuss the contents of this comment letter. Staff also spoke with Mrs. Arcularius via telephone on September 19, 2019 and looks forward to working with those in the ranching community to foster informed decision making in the future.
HA-2	Howard Arcularius, Manager, Arcularius Holdings LLC	The 20 FC standard is not the recommended federal or state standard for E. coli.	Please refer to responses to comments ZS-2, CR-1 and CR6.
HA-3	Howard Arcularius,	This standard lacks historical baseline data from the streams in Inyo and Mono	Please refer to the response to comment BOS-4

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	Manager, Arcularius Holdings LLC	Counties, and the data gathered from 2012 to 2016, with the majority of the data collected in 2014 and 2015 which was a period of extreme and historic drought conditions should be given full consideration [sic]. Additionally, data from normal or above normal runoff should be added to the data set to assess interannual variability in contaminant levels. In order to apply the non-degradation policy this data needs to be fully evaluated and made public.	The 2018 Integrated Report assesses all readily available water quality data and information. No historic data was available for this assessment, so for the 2018 Integrated Report, the period of focus ranged from August 31st, 2010 (the closure of the public data solicitation for the 2012 report) to May 3rd, 2017 (the closure of the public data solicitation for the 2018 report). This period coincides with the historic California drought from 2011-2016. The Integrated Report does evaluate all data that is submitted for assessment and while the non-degradation policy is an important tool for protecting the high-quality waters of the Lahontan Region, it does not directly affect this process.
HA-4	Howard Arcularius, Manager, Arcularius Holdings LLC	It is my understanding that when the Tahoe Basin was combined with the Lahontan District [sic] that this 20/100 ml standard as reflected in the Tahoe region was incorporated as the standard for the entire Lahontan region. As already noted, this application did not include historic baseline data for streams in Inyo and Mono Counties and it did also not include recognition of beneficial uses, especially in regard to agriculture operations. I would recommend that consideration be given to dividing the Lahontan region into different zones so that appropriate standards might be applied accordingly.	Please refer to the response to comment CR-3 for a discussion of the history of the Lahontan Basin Plan bacteria objective. The 2018 Triennial Review identified the review of the Lahontan Basin Plan fecal coliform objective as a top planning priority. That project will include a public process and the suggestion to apply different objectives to different zones in the Lahontan Region could be shared in that process. Comments on the evaluation and appropriateness of the current fecal coliform objective are outside of the scope of the Integrated Report.
HA-5	Howard Arcularius, Manager,	I am also requesting that the Integrated Report be revised to exclude impairment determinations that are made primarily or	Please refer to the responses to comments CR-1, CR-6, CR-8 and ZS-2.
	Arcularius	exclusively on exceedances of the 20/100	The 2018 Triennial Review identified the review of the

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	Holdings LLC	ml standard. Until that review can be undertaken, with full participation and notification as well as the sharing of all data, Lahontan should only use the E. coli standards as adopted by the State Board to determine if waters are appropriately listed as impaired on the 303(d) list.	Lahontan Basin Plan fecal coliform objective as a top planning priority. However, any recommended amendments to the Basin Plan resulting from this review will not be made before the scheduled adoption of the 2018 Integrated Report. If Basin Plan amendments are made as a result of the bacteria objective review project, they will apply to future iterations of the Lahontan Region Integrated Report.
HA-6	Howard Arcularius, Manager, Arcularius Holdings LLC	I am further requesting that a meeting by the Lahontan Board be held in Bishop with the ranchers and that this occur before any further actions are taken regarding this matter by the Board. In that I am requesting an extension of the comment period.	In an effort to improve communication, on September 19, Water Board staff had a long phone call with Mrs. Linda Arcularius to further discuss the concerns of Arcularius Holdings. On September 20, 2019 staff called Mr. Mathew Kemp to discuss concerns raised in his comment letter. Staff has also contacted other members of the Inyo-Mono ranching community in an effort to improve communication and information sharing. As was communicated via email, an additional comment extension period was not granted on the basis that the comment period was previously extended by 30 days in July 2019, and that stakeholders will have the opportunity to provide oral comments before the Water Board during
SLT-1	City of South Lake Tahoe	Bacteria Assessments: While the recently adopted and U.S. EPA approved Bacteria Provisions and a Water Quality Standards Variance Policy ¹ specifically allows the Lahontan Region fecal coliform bacteria water quality objectives to not be superseded by more current E. coli and Enterococci standards, it is anomalous that the 2018 Integrated Report continues to utilize the outdated indicator of fecal	the November 2019 Board meeting in Barstow, CA. Unless the Basin Plan is amended to revise the fecal coliform bacteria objective, that objective remains in effect. Consequently, the Integrated Report analysis must utilize the fecal coliform water quality objective until it is revised.

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		coliform. Scientific advancements in microbiological, statistical, and epidemiological methods have demonstrated that culturable Enterococci and E. coli are better indicators of harmful levels fecal contamination than the previously used general indicators (total coliforms and fecal coliforms). ²	
		¹ State Water Resources Control Board, August 7, 2018. Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and Water Quality Standards Variance Policy. Available online:https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2 018/final_iswebe_bacteria_provisions.pdf ² U.S. EPA, 2012 Recreational Water Quality Criteria recommendations for protecting human health. Available online at: https://www.epa.gov/sites/production/files/2 015-10/documents/rwqc2012.pdf	
SLT-2	City of South Lake Tahoe	Based on epidemiological studies evaluating the use several organisms [sic] as possible indicators of fecal contamination (including fecal coliform, E. coli, and Enterococci), the U.S. EPA published the "U.S. EPA Ambient Water Quality Criteria for Bacteria – 1986" documenting the U.S. EPA recommendations to use E. coli and	The commenter is correct that the statewide bacteria objectives adopted by the State Water Board in 2018 follow U.S. EPA recommendations to use <i>E. coli</i> and Enterococcus as the preferred bacterial indicator species for freshwater and marine waters, respectively, and are supported by robust scientific investigation. These objectives are meant to protect the REC-1 water contact beneficial use, which is why the Lines of Evidence that assess bacteria data against the Lahontan Basin Plan

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		Enterococcus in order to replace the outdated fecal coliform criteria.	fecal coliform objective are based on protection of the MUN beneficial use. In the Integrated Report, it is not possible to assess the same beneficial use against two
		As noted in the U.S. EPA approval letter, the statewide amendments to the bacteria objectives focusing on E. coli and Enterococcus are supported by robust science and stakeholder engagement in order to safeguard human health and aquatic wildlife. As a part of the U.S. EPA 2012 initiative to update Recreational Water Quality Criteria ³ , the criteria update was based on the latest scientific knowledge on the identifiable effects on health and welfare expected from the presences of pollutants in any body of water.	different water quality objectives for a given pollutant. In the case of Indicator Bacteria, since the statewide <i>E. coli</i> objective is associated with REC-1, the Basin Plan fecal coliform objective is associated with the MUN beneficial use for purposes of the Integrated Report assessment. The Clean Water Act requires that the Water Board protect all beneficial uses of a waterbody, whether it is a present or future beneficial use, or one that existed at any time since November 26, 1975. Consequently, it is appropriate for the Water Board to protect the MUN beneficial use, and associate the fecal coliform objective with MUN. The MUN beneficial use is designated in Lake Tahoe.
		The Indicator Bacteria changes included the 2018 Integrated Report reflect desire to pursue a very stringent criterion in order to protect the MUN beneficial use. However, more than 95 percent of the municipal drinking water supply in the greater South Lake Tahoe area is derived from groundwater, not surface water ⁴ . It is not a wise use of finite public resources to pursue a utopian objective of drinking	
		directly from surface waters without any form of treatment, especially when the municipal supply is from groundwater and often receives additional purification in the South Tahoe Public Utility District (STPUD) system before distribution.	

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		³ USEPA 2012 Recreational Water Quality Criteria. Available online: https://www.epa.gov/sites/production/files/2 015-10/documents/rwqc2012.pdf ⁴ Tahoe Valley South Basins (6-5.01) 2014 Groundwater Management Plan. Prepared by Kennedy/Jenks Consultants for the South Tahoe Public Utility District. December 22, 2014. Available online: http://stpud.us/asset/?id=3211 .	
SLT-3	City of South Lake Tahoe	Proposed Addition: Heavenly Creek (source to USFS boundary), New Listing: Benthic Community Effects: The supporting information for this listing (Decision ID 103474) notes that four Lines of Evidence (benthic-macroinvertebrate bioassessment data, chloride data, iron data and phosphorus data) were used to assess the indicator. It is also noted there are existing listings for chloride, iron, phosphorus and sedimentation, which "have been associated with this decision as possible drivers of the impacts to the benthic community." It is also noted that habitat modification in the creek is likely to have played a part in the disruption of the benthic community. A major challenge with using biological assessments (particularly benthic macroinvertebrate surveys) is that the biological assessments do not identify the cause(s) of the impairment, which creates a significant challenge in the	Please note that Heavenly Valley Creek was incorrectly identified in Appendix A of the Integrated Report as Heavenly Creek. This response therefore addresses the commenter's concerns regarding the proposed listing for Benthic Community Effects for Heavenly Valley Creek. The final Staff Report has been revised to correct this error in the waterbody name. The 2018 Integrated Report is the first time that benthic macroinvertebrate bioassessment data has been assessed as a primary Line of Evidence in the Lahontan Region. The guidance provided by the State Water Board for how to assesses this data requires that any waterbody proposed for 303(d) listing for Benthic Community Effects must also have other 303(d) impairments identified for that waterbody. Heavenly Valley Creek meets this threshold for listing for Benthic Community Effects because, as noted by the commenter, there are several other impairments that were identified previously that include chloride, iron, phosphorus and sedimentation. As noted in the comment, biological assessments do not identify the cause(s) of an impairment. Such identification takes place during

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SLT-4	City of South Lake Tahoe	Proposed Addition: Trout Creek (above Hwy 50), New Listing: Turbidity: Trout Creek is an upstream tributary of Lake Tahoe. The Lake Tahoe TMDL (adopted by the Regional Board on November 16, 2010 and approved by the USEPA on August 17, 2011) addresses clarity (turbidity) impairments primarily caused by suspended sediment. On the ground efforts required by the Lake Tahoe TMDL that focus on (1) stabilizing disturbed areas within the forested uplands and (2) managing and treating urban uplands (e.g. street sweeping, installing and maintaining infiltration and stormwater treatment facilities) will also achieve pollutant load reductions of sediment within this waterbody segment, which is tributary to Lake Tahoe.	Actions taken under the Lake Tahoe TMDL to address suspended sediment could also affect conditions in Trout Creek, a tributary to Lake Tahoe. As described by the commenter, the City of South Lake Tahoe is assigned responsibility under the Lake Tahoe TMDL to reduce fine sediment and nutrient loading within its jurisdictional boundaries. That includes requirements to implement a pollutant reduction strategy to meet load reduction targets contained in the City's Municipal Stormwater NPDES permit.
		The Lake Tahoe TMDL identifies actions that resource management agencies, California-based Lake Tahoe municipalities (El Dorado and Placer Counties, and the City of South Lake Tahoe) and California Department of Transportation must take to reduce fine sediment and nutrient loading to the Lake. Municipal Stormwater NPDES permits require the municipalities and Caltrans to develop and implement comprehensive Pollutant Load Reduction Plans (PLRPs) to meet specified pollutant load reduction requirements. Expected implementation measures include a variety	

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		of alternative treatment options, roadway operation practices, and local ordinances to reduce average annual pollutant loads. These Lake Tahoe TMDL implementation efforts will also reduce inputs of sediment to this impaired segment of Trout Creek.	
SLT-5	City of South Lake Tahoe	Additionally, the Lake Tahoe TMDL requires that the USFS-Lake Tahoe Basin Management Unit undertake restoration actions to reduce erosion and treat urban storm water runoff from paved and unpaved roadways, campgrounds, and recreational trails within the Lake Tahoe watershed. Storm water collection, conveyance, and treatment facilities coupled with revegetation of previously disturbed lands and stabilizing areas designated for recreational use are expected to reduce erosion and help control sediment discharges resulting in elevated turbidity levels in Trout Creek. Finally, the Lake Tahoe TMDL requires implementation of measures to control stationary sources of dust, which help reduce pollutant loads of fine sediments. Implementation of these measures helps address the sedimentation/siltation loading that impairs Trout Creek from dust sources.	Restoration activities undertaken by the USFS-Lake Tahoe Management Unit, such as revegetation of disturbed areas, can reduce erosion and lead to lower turbidity levels, provided that those activities occur within the Trout Creek watershed. Additional implementation requirements, such as measures to reduce sources of dust, may also improve conditions in Trout Creek. Additionally, the Lake Tahoe TMDL Management System is available online and provides considerable detail regarding compliance measure performance tracking within the Lake Tahoe basin. The performance tracking tool can be used to identify TMDL implementation projects within the Trout Creek watershed that have already occurred or that are planned to occur. The expectation is that future water quality monitoring data for Trout Creek will eventually show improvements in turbidity levels and, with sufficient data, this may allow future removal of this waterbody from the 303(d) list.

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		Creek tributary watershed will be tracked through implementation of detailed performance and compliance measures and assessment and reporting protocols included in the Lake Tahoe TMDL. As discussed above, the TMDL Management System is establishing activity-based tracking and reporting requirements to assess activities that are expected to reduce pollutant loading from non-urban sources.	
		The Lake Tahoe TMDL requires implementation, effectiveness, and status and trends monitoring. Tributary stream status and trends monitoring will track long-term changes in water quality conditions relative to established water quality standards or goals, and project-specific monitoring will be used to assess the efficacy of various implementation measures, including those from tributary stream that flow to Lake Tahoe.	
		Long-term water quality trends and pollutant load reduction tracking in Trout Creek will be captured through the ongoing efforts to monitor discharge, nutrient load, and sediment loads from representative streams that flow into Lake Tahoe.	
SLT-6	City of South Lake Tahoe	Pollutant loading of turbidity, sediment and silt in Trout Creek (a tributary to Lake Tahoe) is currently addressed through the	Implementation measures required by the Lake Tahoe TMDL would be expected to improve conditions in Trout Creek. The Trout Creek proposed 303(d) listing for

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		existing Lake Tahoe TMDL. The approach to include the turbidity analyte on the 303(d) impaired list and note that the impairment is being addressed by a U.S. EPA approved TMDL (Category 5B) is consistent with related impairments for Heavenly Creek (Decision ID 79971), and Ward Creek (Decision ID 79663). The creation of a new TMDL for this one tributary to Lake Tahoe would create redundant and duplicative requirements currently addressed by the Lake Tahoe TMDL.	turbidity should be assigned to Category 5B in recognition of the Lake Tahoe TMDL. The Integrated Report turbidity decision for Trout Creek will be moved to Category 5B to indicate it is being addressed under the Lake Tahoe TMDL.
		The City requests that the Category for this new listing be revised to 5B, as this new impairment listing is already being addressed by a USEPA-approved TMDL.	
SLT-7	City of South Lake Tahoe	Proposed Addition: Truckee River, upper (below Christmas Valley), New Listing: Indicator Bacteria: As noted above in the Bacteria Indicator section, over 95% of the municipal water supply in the greater South Laker Tahoe area is derived from groundwater, not surface water. Decision ID 101524 relies on Lines of Evidence including fecal coliform, which the U.S. EPA has identified as an outdated method. The usage of the E. coli indicator is an appropriate method for the relevant REC-1 Beneficial Use.	The Basin Plan fecal coliform water quality objective is associated with the MUN beneficial use for purposes of the Integrated Report. The Truckee River, upper (below Christmas Valley) waterbody segment is designated for the MUN beneficial use. Moreover, as stated in response to comments SLT-1 and SLT-2 (and CCA-2, above), until the Lahontan Basin Plan is amended to revise the bacteria objective (not a predetermined outcome), the fecal coliform objective remains in effect. Consequently, the Integrated Report analysis must utilize the fecal coliform water quality objective to assess the available fecal coliform data.

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		addition be reconsidered evaluating the best indicator (E. coli) for the relevant beneficial use (REC-1), not an outdated indicator (fecal coliform) for an inapplicable beneficial use (MUN).	
SLT-8	City of South Lake Tahoe	Existing Listing: Bijou Park Creek, Listing: Oil and Grease: The supporting information for this listing (Decision ID 79171 and LOE ID 34094) notes that all oil and grease samples were collected from HV-C4 at the Heavenly Ski Resort California Parking lot. The Heavenly Mountain Resort and associated California Parking Lot is covered under the existing Waste Discharge Requirements (WDR), Board Order No R6T-2015-0021, WDID 6A090033000. The Heavenly WDR: - identifies oil and grease as a potential pollutant - contains runoff effluent limits for oil and grease - includes prohibitions for the discharge of oil and grease, and - includes sampling requirements in the monitoring and reporting program associated with the WDR. Given the robust existing WDR regulatory program intended to address oil and grease in runoff from the California parking lot, the City requests that the Category for this impairment be changed to 5C	Measures required by the Waste Discharge Requirements contained in Board Order No R6T-2015-0021 are intended to prevent oil and grease pollution from entering Bijou Park Creek. However, until additional water quality data for oil and grease are available for Bijou Park Creek, no change is proposed for the existing Oil and Grease 303(d) listing for that waterbody. Any change to this listing, including both the commenter's request to place it into Category 5C or potentially de-listing for Bijou Park Creek should be based on recent monitoring data that shows Oil and Grease concentrations below the applicable water quality objective. Based on the Listing Policy, a sample size of at least 28 observations is required to de-list a waterbody for toxicants in water. Staff recommends that Heavenly Mountain Resort submit its receiving water monitoring data to CEDEN, which would then make this data and information available for assessment as part of the Integrated Report process in the future.

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		(impairment being addressed by an action other than a TMDL).	
HMR-1	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Bijou Park Creek, New Listing: Iron (Category 5A, Completion Year 2028) The fact sheet states "that this creek has naturally high levels of iron. Though this creek has naturally high levels of iron, ambient concentrations for this creek have not been established at this time." In the 2012 Fact Sheet, the Regional Board used these same lines of evidence to recommend that Bijou Park Creek not be listed for iron. Therefore, Heavenly requests the Regional Board staff return to its 2012 conclusion that the lines of evidence do not support placing Bijou Park Creek on the section 303(d) list for iron.	The 303(d) listing for iron in Bijou Park Creek is not a new listing. Bijou Park Creek was determined as impaired by iron during the 2012 Integrated Report listing cycle by the Lahontan Regional Water Board. The decision relationships contained in the factsheet from the 2012 cycle reads: "This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status. Two lines of evidence, one to evaluate COLD and one to evaluate MUN, are available in the administrative record to assess this pollutant. Ten of the samples exceed the secondary MCL (MUN) or evaluation criteria (COLD), but this creek has naturally high levels of iron, ambient concentrations for this creek have not been established at this time. As such, the secondary MCL of 0.3 mg/L is applied to evaluate compliance with the MUN beneficial use. The iron concentrations measured in nine of nine samples evaluated for the MUN use exceed the secondary MCL of 0.3 mg/L, and five of the nine samples exceed the secondary MCL by an order of magnitude (or 10 times the MCL). Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category. This conclusion is based on the findings that: 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 2. The data used satisfies the data quality requirements of

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			section 6.1.5 of the Policy. 3. Ten of ten samples exceeded the secondary MCL (MUN) or evaluation criteria (COLD), and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met."
			The 2012 Regional Board Decision Recommendation states: "After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem."
			When the draft factsheets for the 2012 Integrated Report were circulated to stakeholders, the original listing suggestion for iron in Bijou Park Creek was "Do Not List". However, before the end of the 2012 comment period, this suggestion changed to "List" Bijou Park Creek for iron based on data available to them at the time. This recommendation to "List" was highlighted in the 2012 response to comments.
			For the 2018 cycle, no new iron data for Bijou Park Creek were assessed. The 2012 decision therefore remains unchanged, and Bijou Park Creek remains listed on the 303(d) list as impaired by iron.
HMR-2	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly	If, however, the Regional Board decides to include Bijou Park Creek as impaired for Iron, Heavenly requests the water segment be listed as Category 4B rather than Category 5A. Heavenly believes that the resources required to develop and	Category 4B includes 303(d) listed waters that are being addressed by actions other than TMDLs. To Water Board staff's knowledge, there are no actions being taken in the Bijou Park Creek watershed at this time to address iron water quality impairments.

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	Mountain Resort	implement a TMDL to address a pollutant such as iron, for which the levels are naturally high, would be more effectively utilized to address existing TMDL's addressing pollutants with documented anthropogenic sources.	The Integrated Report uses all readily available water quality data and information to determine if water quality objectives are being met or are being exceeded. In the case of Bijou Park Creek, the available information shows that the iron water quality objective is being exceeded. Once the Integrated Report is adopted by the Regional Board, staff prioritizes listed waters based on the severity of the water quality impairment, taking into consideration elements such as human health risks and whether anthropogenic actions are the cause of the water quality issue. The addition of a waterbody to the 303(d) list does not automatically lead to the immediate development of a TMDL because of the aforementioned prioritization of impaired waters. Additionally, the Water Board has tools other than TMDLs to address water quality impairments, such as, but not limited to, water quality objectives updates, waste discharge requirements (WDRs), and water quality improvement plans.
HMR-3	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Bijou Park Creek, New Listing: Oil and Grease (Category 5A, Completion Year 2028) The Fact Sheet uses data from Heavenly's discharge monitoring reports from October 2007 to September 2009 to reach its conclusion. The data from this time period were collected during the optimization of the below-ground stormwater treatment system and the automated sampler system for Heavenly's California Base Area Parking Lot. At the Regional Board's request, Heavenly worked closely with the Regional Board on the design, installation,	The oil and grease listing for Bijou Park Creek was recommended during the 2012 Integrated Report listing cycle. Water Board staff's recommendation to include the creek in Category 5A because of impairments by oil and grease was accepted by the Water Board, the State Water Board, and by U.S. EPA. No new data or information was available to staff for the 2018 assessment cycle. Because there was no new data or information provided to the Water Board for the 2018 cycle, the decision to list Bijou Park Creek remains unchanged. Water Board staff commends Heavenly Mountain Resort for the work that has been done to date to install and monitor the below-ground stormwater treatment system. However, without available data to show that oil and

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		and optimization of these systems because Heavenly was the first discharger in the basin to install an automated sampling system for the treatment unit. There was a long period of trouble-shooting this first-in-the-basin system, and both the Regional Board and Heavenly agreed that the data from this time period were not reliable for decision making purposes. However, the data from this period are referenced in the Fact Sheet as the LOE to list Bijou Park Creek as a Category 5a impaired water segment.	grease impairments in Bijou Park Creek have been adequately addressed and compliance with the oil and grease water quality objective restored in the waterbody, staff cannot remove the creek from the 303(d) list. In support of the 2012 listing, the available evidence showed that seventeen of seventeen available oil and grease samples were recorded above the evaluation guideline. The evaluation guideline used was U.S. EPA's 1986 Gold Book Water Quality Criteria of 0.001 mg/L, which is the threshold above which aquatic life can be harmed by oil and grease. Any proposed de-listing for Bijou Park Creek should be based on recent monitoring data that shows oil and grease concentrations below the applicable water quality objective and evaluation guideline. Based on the Listing Policy, a sample size of at least 28 observations is required to de-list a waterbody for toxicants in water. Staff recommends that Heavenly Mountain Resort submits its receiving water monitoring data to CEDEN, which would then make this data and information available for assessment as part of the next Integrated Report.
HMR-4	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Heavenly's 2016 report to the Board, prepared by Catalyst Environmental Solutions 'Bijou Park Creek Evaluation Report Heavenly Mountain Resort' included a lengthy demonstration that the system (and other best management practices) had been successfully implemented at the California Base Parking lot. Since 2016, Heavenly has been submitting discharge monitoring reports on a quarterly basis to the Regional Board, which provide an abundance of more current and reliable data for the Board's assessment of this	Please refer to the response to comment HMR-3. The Water Board encourages Heavenly Mountain Resort to submit its monitoring data for Bijou Park Creek to CEDEN and to submit other supporting information directly to the Water Board for inclusion in future Integrated Report assessments. Per section 6.1.3 of the California Listing Policy, narrative water quality objectives (such as the objective for oil and grease in the Lahontan Region Basin Plan) shall be evaluated using evaluation guidelines. In the case of oil and grease in Bijou Park Creek, during the 2012

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		segment of Bijou Park Creek. These data indicate oil and grease concentrations in this segment of Bijou Park Creek at or near the detection limit of 2.0 mg/L (maximum: 3.3 mg/L). The water quality objective cited in the Fact Sheet for oil and grease is as follows: Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses (Lahontan Region Water Quality Control Plan). The discharges from the system, however, are well below levels that produce visible films or coatings on the water surface. The Lahontan limit is at the detection limit for this constituent; minor exceedances (less than 3.3 mg/L) are within the 30 percent uncertainty that certified laboratories must meet.	assessment cycle staff identified U.S EPA's Gold Book as the appropriate evaluation guideline to satisfy language in the objective that waters "shall not contain oils, greases, waxes or other materials in concentrationsthat otherwise adversely affect the water for beneficial uses." To remove this 303(d) listing, data must show that Bijou Park Creek meets the narrative water quality criteria through attainment of the evaluation guideline with a frequency stipulated by table 4.1 of the California Listing Policy. Staff look forward to working with Heavenly Mountain Resort to address the oil and grease listing for Bijou Park Creek.
HMR-5	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Heavenly Creek (source to USFS Boundary), Benthic Community Effects (Category 5A, completion year 2031) Appendix A lists Heavenly Creek as a proposed addition to the 303(d) List for Benthic Community Effects. The Fact Sheet States:	To clarify, the assessments for Heavenly Valley Creek, and for Heavenly Creek, unknown tributary, are for two distinct waterbody segments which exist in the Heavenly Valley Creek watershed. Both waterbodies were assessed for Benthic Community Effects. The assessment for Heavenly Valley Creek determined that the waterbody is impaired for Benthic Community

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		Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for placing Benthic Community Effects in the waterbody segment on the CWA section 303(d) list. However, Appendix E states that Heavenly Creek Benthic Community Effects are under Category 3, which are water segments "with water quality information that is insufficient to determine an appropriate decision recommendation, but the available data and information that does exist indicate beneficial uses may be potentially threatened."	Effects based on available BMI data and exceedances of chloride, iron, and phosphorus water quality objectives. The assessment for Heavenly Creek, unknown tributary determined that the available data and information was not sufficient to recommend the waterbody be added to the 303(d) list because the two recorded exceedances of the Benthic Community Effects objective were not supported by additional water chemistry impairments. Confusion between the two waterbody segments may have arisen because of the omission of the word "Valley" from the nomenclature in Appendix A. This oversight has been corrected. The listing recommendation information contained in Appendix A and Appendix E is correct however, and staff recommends that Heavenly Valley Creek (source to USFS Boundary) be placed on the 303(d) list because of impairments to the benthic community, while Heavenly Creek, unknown tributary be placed in Category 3 because of a lack of supporting impairment information.
HMR-6	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Based on this recent and thorough analysis by the Regional Board, and a finding of uncertainty regarding an appropriate decision, Heavenly agrees that listing to Category 3 may be appropriate. Heavenly requests that the Regional Board clarify the listing category, presumably to listing Category 3, based on this information.	Please refer to the response to comment HMR-5. Heavenly Valley Creek (source to USFS Boundary) has been determined as impaired for Benthic Community Effects based on BMI data and existing impairments for chloride, iron and phosphorus. Heavenly Creek, unknown tributary, has been recommended to Category 3 as potentially threatened because the available BMI data indicates impairment below the recommended California Stream Condition Index (CSCI) threshold of 0.79, but there is no water chemistry data to corroborate the data.

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HMR-7	Mike Goar, Vice President and C.O.O., Vail Resorts, Heavenly Mountain Resort	Heavenly Creek (source to USFS Boundary), Chloride, do not delist (Category 5A completion year 2028) The Fact Sheet (Appendix H) states that in 2006 this waterbody segment was listed for exceedances of chloride for a non-contact recreation beneficial use. Based on data reported by Heavenly to the Board, while chloride concentrations have exceeded the state standard over the past eight monitoring years in Heavenly Creek, the chloride readings are also above the state standard at Hidden Valley Creek. This topic was discussed in both the Regional Board's 2015 EIR/EIS/EIS for Heavenly's Epic Discovery Project, and in Heavenly Mountain Resort's Bijou Park Creek Evaluation Report. In both cases, the reports note that the causes for these increased chloride concentrations were uncertain and require further investigation. Winter application of salts is one plausible cause and is likely a basin-wide concern. However, the amount of data available, using Category 3 Criteria, "is insufficient to determine an appropriate decision recommendation, but the available data and information that does exist indicate beneficial uses may be potentially threatened." This statement is supported by the Fact Sheet statement that "a minimum of 26 samples is needed for application of Table 3.1. The placeholder LOEs used for	The commenter is correct that the 2006 Integrated Report cycle assessed the available chloride data for a noncontact recreation use in Heavenly Creek (source to USFS Boundary). The decision was subsequently updated during the 2012 Integrated Report assessment cycle using newly collected data assessed for compliance with a different beneficial use. During the 2012 cycle staff determined that chloride concentrations recovered from Heavenly Valley Creek (source to USFS Boundary) exceeded the applicable chloride water quality objective assessed for compliance with the Cold Freshwater Habitat (COLD) beneficial use. Water Board staff assessed chloride data collected from the HV-C2 (Below Patsy's) and HV-C3 (Property Line) monitoring sites on four occasions in 2008 and 2009. These data show sufficient exceedances of the water quality objective for staff to recommend a "Do Not Delist" decision during the 2012 listing cycle. No new data was available in CEDEN for assessment during the 2018 assessment cycle. Staff encourages Heavenly Mountain Resort to submit its chloride monitoring dataset to CEDEN for use in a future assessment cycle. If, in a future assessment, chloride concentrations in Heavenly Valley Creek are found to attain the applicable water quality objective with the requisite frequency as stipulated by Table 4.2 of the California Listing Policy, then staff will recommend the listing for chloride be removed from the 303(d) List of Impaired Waters. Staff cannot presently change the "Do Not Delist" decision for the waterbody because there is no new data or information available in CEDEN for assessment purposes.

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		the original listing based on protection of REC are still valid and the recommendation is Do Not Delist." Based on this information, Heavenly respectfully requests the Board modify the listing of Heavenly Creek as a Category 3.	
DWP-1	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	1. Listings based on fecal coliform: In the Integrated Report, the Regional Board indicates that the fecal coliform objectives will be re-evaluated after the listing process is complete. However, LADWP believes that in order to remain consistent, the objectives should be re-evaluated before listing occurs.	Please refer to the responses to comments ZS-2 and CR-1.
DWP-2	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	LADWP understands that the Regional Board is utilizing the Municipal and Domestic Supply (MUN) beneficial use to support the use of the fecal coliform standard for listing purposes. However, many of the waterways listed in the Integrated Report are used primarily for the Water Contact Recreation (REC-1) beneficial use. Based on the recently adopted Statewide Bacteriological Objectives, <i>E. coli</i> is the required indicator for fresh water inland streams and surface water bodies, such as those listed in the Integrated Report. The water that is eventually used as potable water is filtered and/or treated to eliminate bacterial	Please refer to the response to comment CR-2 and CR-3. Additionally, the Clean Water Act requires that the Water Board protect all beneficial uses of a waterbody, whether it is a present or future beneficial use, or one that existed at any time since November 26, 1975. These waters are designated for the MUN beneficial use in the Lahontan Basin Plan. Consequently, it is appropriate for the Water Board to protect the MUN beneficial use, and associate the fecal coliform objective with MUN

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		contamination and therefore would not impair the MUN beneficial use. Because these waterways are exposed to wild life [sic], any of these waterways would need to be treated before being used for MUM purposes and therefore MUN does not correlate with the beneficial use of these water ways [sic]	
DWP-3	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	Additionally, in reviewing the Regional Board data sets for the Integrated Report, LADWP has been unable to verify that all of the samples used for the 303(d) listings complied with the relevant holding times. Fecal coliform samples have strict holding time requirements, and when they are not met, can result in inaccurate data for the underlying bacteria contamination assessment. In sampling in the Lahontan region, LADWP has been unable to have fecal coliform samples analyzed within the applicable holding times because no Environmental Laboratory Accreditation Program (ELAP) certified laboratory is close enough to the sample sites to transport and analyze the samples within the 8-hour compliance holding time. While a 24-hour holding time may be acceptable for ambient sampling, making a decision as to whether or not to list a water body must be based on samples that meet the 8-hour compliance holding time. The data provided by the Regional Board in the California Environmental Data Exchange Network	In accordance with the Listing Policy (see sections 6 through 6.3), there are several steps in the data assessment process that must take place after the data submission deadline. Data should be supported by a Quality Assurance Project Plan (QAPP). However, the Listing Policy does indicate that "data without rigorous quality control can be used in combination with high quality data and information." The Listing Policy does not require data used in listings to come from only ELAP certified laboratories. All data that was used in the 2018 Integrated Report is available to download via 'Appendix H: Waterbody Fact Sheets' and can be accessed from the Lahontan Region Integrated Report webpage. For bacteria data, the records for those samples that were not processed within the 8-hour holding time are flagged with the Quality Assurance (QA) code 'H8'. Records for those samples that were not processed within the 24-hour holding time are flagged 'H24'. All bacteria samples that were not flagged 'H8' or 'H24' can be considered to have met the holding times required by the respective bacteria laboratory methods. There is no QA code for a bacteria samples that were processed within the 8-hour holding time likely have been

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		(CEDEN) is insufficient to assess whether the data used for listing purposes was analyzed within the 8-hour compliance holding time. Therefore, LADWP respectfully requests that the Regional Board provide the entirety of the QA/QC data for all fecal coliform samples that were used in the listing evaluation as part of the Integrated Report. Finally, LADWP has been unable to verify that all fecal coliform samples that were collected were analyzed by an ELAP certified laboratory and therefore respectfully requests that this be confirmed by the Regional Board.	designated the QA code 'None', unless there was another reason other than a holding time violation to flag the sample (examples of other QA codes would include excessive bacteria growth resulting in bacteria colonies that are too numerous to count: 'TNC', or analysis performed at a secondary dilution: 'D'). CEDEN holds all Water Board collected data that was used for the 2018 Integrated Report, including all QA/QC records. QA/QC records are available to download if the user selects a specific search criterion, namely through checking the 'Include QA/QC data' radio button on the CEDEN Advanced Query Tool (AQT) webpage interface. Should LADWP require assistance downloading these data, Water Board staff will be happy to help. Data quality checks are completed prior to performing Integrated Report assessments. Data that does not meet the required data quality standards is removed from the assessment process. The number of data records that do not meet quality standards and are removed from the assessment process are noted in the applicable LOE, as well as information regarding the QAPP for the project, and information regarding who collected the data, and where and when the data was collected. It should be noted that laboratory QA/QC data is not included in the data references available via the Waterbody Fact Sheets generated as part of the Integrated Report process. Only discrete water quality datapoints generated by Water Board sampling efforts are available via the downloadable references found in the Fact Sheets of the Integrated Report. Laboratory QA/QC data is available via CEDEN. All fecal coliform bacteria samples collected by Lahontan
į			Water Board staff are processed at the Lahontan Water

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			Board inhouse laboratory in South Lake Tahoe. The Water Board follows a strict SOP for sample collection and analysis, and analyses are performed in accordance with U.S.EPA method 9222D.
DWP-4	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	2. Basis for 303(d) Listing Utilizing the use of the Geometric mean It appears that the geometric mean calculations performed by the Regional Board and used for the 303(d) listings are not supported by the data set in the Integrated Report, or the Statewide Bacteria Objectives. The State Water Resources Control Board (State Board) and the Regional Board's data shows that as few as two samples were used for the calculation of the geometric mean, whereas the bacteria objectives require five to six samples to be valid. For example, the Fact Sheet for Bishop Creek Forks (North and South Fork below bifurcation) states that there were four lines of evidence for <i>E. coli</i> and that 55 out of 125 geometric means exceeded the water quality objectives of 100 cfu per 100 mL. Since the State Board's newly adopted objectives indicate that 303(d) listings should be based on geometric means with statistically sufficient number of samples, generally not less than five samples over a	The E. coli geometric mean calculations are supported by both the Integrated Report dataset and by the Statewide Bacteria Objectives. To calculate E. coli geometric means (geomeans) for the 2018 Integrated Report, Water Board staff used a minimum of three discrete bacteria samples for each sixweek period. The reasons for this choice are three-fold. First, given the geography of the Lahontan Region and given the resources available to the Water Board, it is extremely difficult to collect five bacteria samples from many of the region's waters within a six-week period. Second, analysis performed by Water Board staff determined little functional difference in exceedance rates when using a three-sample minimum compared with a five-sample minimum. Third, while the Statewide Bacteria Provisions recommend a minimum sample size, the Regional Water Boards have discretion to decide what the minimum sample size will be for assessment purposes. So that the extensive (and resource intensive) bacteria datasets collected in the Lahontan Region, and from other Water Board Regions, could be assessed against the State Water Board REC-1 E. coli geomean objective, Water Board assessment staff from across the state chose to use a 3-sample minimum for geomean calculations. Where less than 3 samples were available in a six-week period, staff assessed the available data using the Statistical Threshold Value.

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		six-week period, it is unclear how the	
		Regional Board staff calculated the	To further support the decision to use a three-sample
		geometric mean for purposes of listing. In	minimum in geomean calculations, U.S. EPA's 2012
		many cases as few as two samples where	Recreational Water Quality Criteria does not specify a
		used to calculate the geometric mean.	minimum number of samples that should be collected by a state to determine if water quality objectives are being
		The REC-1 Bacteria Objectives adopted by	exceeded, stating on page 42 Section 3.5.6: "The number
		the State Board in August 2018 define a	of samples, to be collected by a state in determining if
		geometric mean calculation as the nth root	[Water Quality Standards] have been exceeded, is not an
		of the product of n numbers based on a	approvable element of a [Water Quality Standards]
		statistically sufficient number of samples,	package (Florida Public Interest Research Group vs. EPA,
		which is generally not less than five	2007)." The Statewide Bacteria Provisions adopted by the
		samples distributed over a six-week period.	California State Water Board in 2018 state on page 2 that "waterbody [geometric means] shall not be greater than
		Based on the standard set forth in the	the applicable [geometric mean] magnitude in any six-
		Bacteria Objectives, it appears that some of	week interval, calculated weekly." The Provisions go on to
		the geometric mean calculations presented	state "Only the GEOMETRIC MEAN values shall be
		by the Regional Board as a basis for listing	applied based on a statistically sufficient number of
		in its Integrated Report should not be relied	samples, which is generally not less than five sample
		on for listing purposes. Therefore, LADWP	distributed over a six-week period." The key word here is
		requests clarification regarding how the	"generally". Given the geographical and resource
		geometric mean was calculated with the	challenges faced by the Lahontan Water Board, and the
		data set shown in the Integrated Report,	desire to protect human health, staff have determined that
		and suggests that no water bodies should	a three-sample minimum geometric mean is a statistically
		be listed until a sufficient number of	sufficient number of samples with which to assess
		samples have been collected to accurately calculate the geometric mean.	waterbody compliance with the Bacteria Objectives.
DWP-5	Katherine	3. Bishop Creek Listing	Water Board staff believe that the way Bishop Creek is
	Rubin,		segmented remains valid and reflects the overarching land
	Manager of	The Integrated Report describes	uses in the watershed. The current Bishop Creek
	Wastewater	segmentation (seven segments) of Bishop	segments are supported by the available water quality
	Quality and	Creek to reflect the overarching land uses	data and information.
	Compliance,	that occur in the watershed. "Bishop Creek	

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	Author Los Angeles Department of Water and Power (LADWP)	Forks" (north and south forks below bifurcation) is currently listed as impaired in the Integrated Report based on <i>E. coli</i> and fecal coliform exceedances. However, most of the sampling stations are concentrated in the eastern portion of the waterbody, and near the tribal reservation. The sampling stations are not necessarily representative of their [sic] entire waterbody as described in the Integrated Report. Since 2014, LADWP sampled <i>E. coli</i> on a weekly basis over a more comprehensive stretch of Bishop Creek, and the data shows that much of the North and South Forks are not impaired and that the North Fork generally has lower concentrations that the South Fork. Additionally, LADWP's data shows that although <i>E. coli</i> concentrations were relatively high in 2015, they improved and remained low at most sampling locations between 2016 and 2019. Since 2015, LADWP has provided the Regional Board the <i>E. coli</i> results and has uploaded the data into CEDEN. LADWP plans to continue communication	The Lahontan Water Board spent considerable time sampling Bishop Creek Forks so that any potential human health concerns stemming from bacteria contamination in the creek could be characterized. Sampling was focused in the eastern portions of the waterbody segment. The eastern portions of the watershed are more populated and receive more water contact recreation (REC-1) uses when compared with the western portions of the segment, hence the focused bacteria sampling in this area of the watershed. There are five sampling stations in the western portions of the Bishop Creek Forks segment, and generally bacteria water quality conditions in this portion of the creek can be described as good, compared with somewhat poorer bacteria conditions in the downstream reaches. The Water Board would like to commend LADWP for their sampling efforts in Bishop Creek. However, despite a submission of a portion of its dataset in 2015 (which was not submitted to CEDEN and which did not contain the required information to be included in Integrated Report assessments), LADWP only provided its complete dataset to the Water Board via CEDEN for use in the 2018 Integrated Report was May 3 rd , 2017. The notice regarding the data solicitation deadline is available on the Lahontan Region's Integrated Report website and it titled 2018
		with the Regional Board providing data and information as requested.	Integrated Report data solicitation notice. Water Board assessment staff did not have access to LADWP collected data for the 2018 assessment cycle, nor was the
		Therefore, LADWP recommends separating Bishop Creek into additional reaches for listing purposes, specifically	information collected by LADWP available to the Water Board whilst making reach segmentation decisions.
		defining the North and South Forks of Bishop Creek as separate segments to	LADWP-collected bacteria data will play a critical role in the development of the Bishop Creek Vision Project plan,

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		more accurately reflect the land uses that occur in each reach. A similar approach has been successfully used by the Los Angeles Regional Board for the Los Angeles River.	and, because the dataset was submitted to CEDEN in June 2019, these data will also be used for assessment purposes during a future Integrated Report assessment cycle. However, staff cannot accept LADWP's recommendation to split Bishop Creek into further segments at this stage of the 2018 Integrated Report. Water Board staff hope that LADWP will continue to provide bacteria data collected from Bishop Creek to the Lahontan Board at regular intervals, and staff look forward to working with LADWP to investigate and address the bacteria water quality issues in the Bishop Creek watershed.
DWP-6	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	The listing of Crowley Lake is an important issue for LADWP. Crowley Lake is a popular recreational area and is critical to the local tourism and economy. Crowley Lake is currently listed as impaired in the Integrated Report based on fish tissue data that indicated the Statewide water quality objective for mercury is being exceeded. However, this determination appears to have been based primarily on one fish sample and consideration of a 2015 USGS investigation into mercury exposure for fish eating birds in California Lakes which concluded that fish contaminated with mercury in the Lake [sic] were likely contributing to elevated mercury levels found in the grebe populations living in the vicinity.	The Water Board agrees that mercury contamination in Crowley Lake is an important water quality issue. Crowley Lake is a major sport fishery in Mono County and the Water Board takes mercury contamination of fish tissue in such a popular fishery very seriously. The Lahontan Water Board detailed the decision to recommend the listing of Crowley Lake in the 2018 Integrated Report staff report but will briefly outline the reasons why it is recommending the reservoir be added to the 303(d) list in this response to comment. 1) The Water Board has data available for assessment that indicates the Wildlife Habitat (WILD) beneficial use is impaired because of mercury concentrations recovered from rainbow trout fish tissue. Line of evidence 132834 contains one composite sample consisting of eight individual rainbow trout. Rainbow trout is a trophic level three fish. These fish were collected between June and August 2012, and the averaged mercury concentration was found to exceed the 0.2 mg/Kg sportfish water quality

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		According to the fact sheet, this listing is	Sport Fish Water Quality Objective is exceeded when
		justified since the mercury concentration in	applied to TROPHIC LEVEL 3 fish, that is sufficient
		one composite (of eight rainbow trout)	evidence to indicate that the Prey Fish Water Quality
		exceeded the water quality objective and	Objective is also exceeded without having to measure the
		because a USGS report states that local	latter objective". Section 3.5 of the Listing Policy does not
		populations of grebes were very likely	apply in this case as there is no other comparable data to
		impacted by mercury contamination of fish	add together with LOE 132834. LOE 132862 also assesses rainbow trout (collected in 2007; ten individual
		from Crowley Reservoir. However, LADWP respectively [sic] disagrees and believes	fish averaged to one composite) and compares the data to
		that this listing is not justified, since section	the Sportfish Water Quality Objective. The result is 0 of 1
		3.5 (Bioaccumulation of Pollutants in	samples exceed the objective, but as the assessment's
		Aquatic Life Tissue) of the Listing Policy	aim is to assess compliance with the Prey Fish Water
		requires a minimum of two exceedances of	Quality Objective (which is 0.05 mg/Kg), it is impossible to
		a water quality objective for listing.	determine whether or not the Prey Fish objective is being
			exceeded. For this reason, LOE 132862 is not added
		In addition, the 2015 USGS report does not	together with LOE 132834 and the binomial distribution
		state that grebes are very likely impacted	has not been applied.
		by mercury; rather it indicates that grebes	
		in Crowley Lake has blood mercury levels	2) Data assessed for the Commercial and Sportfishing
		that generally would put the birds at	(COMM) beneficial use exceed the Sportfish Water Quality
		elevated risk of potential impairment. The	Objective. Only two Rainbow Trout were collected during
		report also mentions that the modeling and	the 2012 sample event which met the size class
		predictive tool developed to estimate levels of risk has limitations, and that there is no	requirements stipulated in the Mercury Provisions. As such, LOE 133338 cannot be used to support an addition
		substitute for direct sampling of birds or	to the 303(d) list alone. However, using this LOE, analysis
		other wildlife for more precise estimates of	of the individual Rainbow Trout outside of the size class
		mercury exposure.	requirements which were collected during the 2012 sample
			event, and the evidence citied in 3) & 4) below, Water
		For these reasons, LADWP believes that	Board staff believe there is a site specific weight of
		listing Crowley Lake as impaired for	evidence case to be made for listing Crowley Lake using
		mercury is premature at this time. LADWP	Listing Policy Section 3.11. Analysis of the mercury data
		requests the Regional Board allow for the	recovered from Rainbow Trout collected in 2012 ranged
		submittal of additional data before making	from 0.05 mg/kg wet weight to 0.60 mg/kg wet weight, but
		the final determination to continue with this	only three of ten individual fish attained the mercury water

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		listing. And therefore, LADWP recommends that Crowley Lake not be listed at this time.	quality objective, and the average concentration across all individuals was 0.33 mg/kg. The water quality objective for the protection of the COMM beneficial use is 0.20 mg/kg ww. The two fish that met the DFW length requirements had mercury concentrations of 0.404 mg/kg and 0.519 mg/kg, respectively. Considering that the lake is a sportfish destination, Lahontan Water Board staff has identified that there is a mercury human health concern present in Crowley Lake that prevents attainment of the COMM beneficial use.
			3) Fish tissue data available for Sacramento Perch recovered from the reservoir show concentrations far in excess of the Prey Fish Water Quality Objective. While these data have not been officially assessed for the Integrated Report, elevated mercury concentrations in this species support the findings of the 2015 USGS Report titled 'Estimating Exposure of Piscivorous Birds and Sport Fish to Mercury in California Lakes Using Prey Fish Monitoring'. Sacramento Perch are a prey fish for Western Grebes. The USGS report found that more than 40% of grebes sampled from around Crowley Lake had blood Total Mercury concentrations of more than 1.0 ug/g ww. For reference, sub-lethal effects are seen in birds at approximately 1.3 ug/g ww. There is a linkage between contaminated prey fish in Crowley Lake and contaminated grebe populations in the watershed. This linkage is supported by the elevated concentrations of mercury recovered from Rainbow Trout in 2012. Rainbow Trout also prey on Sacramento Perch.
			4) Two tributary streams to Crowley Lake have been found to be impaired by mercury. Mammoth Creek is listed for mercury based on water column and fish tissue data; Hot

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			Creek has also been found as impaired by mercury based on the same matrices. Analyzing the available data for these waterbodies and Crowley Lake together reveals a mercury water quality impairment issue in the Upper Owens River watershed.
			The Water Board believes there is enough evidence concerning mercury water quality in Crowley Lake that the waterbody must be included on the 303(d) list during the present assessment cycle. Staff welcome the submission of more mercury water quality data that will help characterize and address the issue and look forward to working with LADWP on this important water quality impairment issue.
DWP-7	Katherine Rubin, Manager of Wastewater Quality and Compliance, Los Angeles Department of Water and Power (LADWP)	6. Other water bodies – Horton and Pine Creek Horton and Pine Creek currently are listed as impaired in the Integrated Report based on <i>E. coli</i> and fecal coliform exceedances. However, only two sampling stations were monitored, and all the exceedances were associated with one station in Horton Creek and one station in Pine Creek. Both stations were located in the eastern portion of their respective watersheds, characterized by more land uses impacts than the western portions. LADWP believes that the data collected are not representative of the overall condition of these creeks and that it would be inappropriate to list Horton Creek or Pine	Assessment of available water quality data for Horton Creek and Pine Creek reveals impairments of both the Statewide E. coli REC-1 water quality objective and the Lahontan Region fecal coliform water quality objective, consistent with Section 3.3 and Table 3.2 of the Listing Policy. The available water quality data is representative of water quality conditions in the watershed, and the downstream stations on each creek reveal that land uses in each respective watershed are negatively impacting water quality. The Water Board commends LADWP for their sampling efforts in the Horton Creek and Pine Creek watersheds. LADWP provided these datasets to Water Board staff and uploaded the data to CEDEN in June 2019. The data submission deadline for the 2018 Integrated Report was May 3, 2017. Water Board staff appreciate the recent data submission made by LADWP, but these data cannot be

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		station. Since 2016, LADWP has sampled on a weekly bases over a more comprehensive stretch of Horton Creek and Pine Creek, and the data shows that much of both waterbodies are not impaired. LADWP has provided the data to the Regional Board, and has uploaded the data into CEDEN, and will continue communication with the Regional Board, providing data and information as requested. For the foregoing reasons, LADWP recommends that Horton and Pine Creek should not be listed as impaired at this time.	was submitted to the Water Board prior to the closure of the data submission period. LADWP bacteria data collected from Horton Creek and Pine Creek will be assessed during the next round of Integrated Report assessments in the Lahontan Region. LADWP-collected bacteria data will play a critical role in characterizing water quality impairments in Horton Creek and Pine Creek. Water Board staff hope that LADWP will continue to provide bacteria data collected from each respective creek to the Lahontan Board at regular intervals, and staff look forward to working with LADWP to investigate and address the bacteria water quality issues in each watershed.
SBC-1	San Bernardino County	The purpose of these assessments is to identify water bodies that are "impaired" and do not meet water quality standards. Based on our analysis and review of the data, the County is concerned that the proposed updates set forth in the staff recommendations do not acknowledge the current watershed land use. We want to highlight this issue as the waterbodies listed in Appendix A, for San Bernardino County, are primarily in United States Forest Service land; the current use would be natural or reference conditions.	The Lahontan Water Board recognizes that land use is an important driver of water quality conditions in adjacent surface waters. However, the purpose of the Integrated Report is to satisfy Clean Water Act (CWA) Sections 303(d) and 305(b), which require an assessment of waters not meeting applicable water quality objectives and a report of ambient conditions in surface waters attaining water quality objectives, respectively. Section 303(d) requirements are prescriptive in nature, and the purpose of these assessments is to identify waterbodies where water quality objectives are being exceeded. Source evaluations may occur in Water Board actions that follow placing a waterbody on the 303(d) list of impaired waterbodies.
SBC-2	San Bernardino County	Crab Creek: The creeks tributary is made of undeveloped area, with majority of the land within it owned by the United States	There are no provisions in the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (California Listing Policy) to account for natural

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		Forest Service (USFS). The parcels that are not managed by the USFS also show no development has occurred. This indicates that the water quality results of the testing done within this creek's tributary occur naturally and should not be included in the 303d listings.	sources or naturally-occurring conditions that may contribute to an observed impairment. This means that even when the exceedance of the water quality objectives is likely due to natural conditions, it still must be listed as impaired on the 303(d) list.
SB-3	San Bernardino County	Deep Creek (below Lake): As the largest tributary to the Mojave River Forks Reservoir, the creek's tributary is founded in an undeveloped area, with majority of the land within it owned by the USFS. The parcels not owned by USFS show no development has occurred. This indicates that the water quality results of the testing done within this creek's tributary occur naturally and should not be included in the 303d listings.	See response to SBC-2, above.
SB-4	San Bernardino County	Gregory, Lake: The draft staff report does not provide insight on the addition of the Chlordane impairment. Being that Chlordane is a compound used for terminates, this product may have been used for the Bark Beetle. The County is requesting more information on how this impairment has been determined.	The Lahontan Water Board recommends the addition of Lake Gregory to the 303(d) list of impaired waters because of chlordane concentrations measured in fish tissue, which exceed the water quality objective established to protect the Commercial and Sportfishing (COMM) beneficial use. Five common carp were collected from the lake in November 2007, and tissue from these individuals were composited into one sample. The analytical results from this sample exceeded the objective for chlordane. In June 2014, ten Brown Bullhead and ten White Crappie fish were collected from the reservoir and composited into samples based on each fish species. The analytical results from the Brown Bullhead composite sample exceeded the applicable water quality objective for chlordane. Chlordane is considered a toxicant pollutant and the California Listing

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			Policy specifies that two exceedances of a toxicant pollutant warrant adding a waterbody to the 303(d) list (California Listing Policy, section 3.1, table 3.1). This is the basis for placing Lake Gregory on the 303(d) list for Chlordane.
SB-5	San Bernardino County	Hilton Creek: Hilton Creek is not part of the County of San Bernardino. Within the draft staff report Table 15, Hilton Creek is labeled to be within the Mono County boundary. This listed water body is a typo in Appendix A.	Lahontan Water Board staff agrees that this is a typo in Appendix A. The mistake will be corrected for the final report.
SB-6	San Bernardino County	Holcomb Creek: The creeks tributary is made of undeveloped area, with majority of the land within it owned by the USFS. The parcels that are not owned by USFS show no development has occurred. This indicates that the water quality results of the testing done within this creek's tributary occur naturally and should not be included in the 303d listings.	The Lahontan Water Board recommends the addition of Holcomb Creek to the 303(d) list because of impairment by fluoride and sulfates. See response to SB-2, above.

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SB-7	San Bernardino County	Mojave River (Mojave Forks Reservoir to Upper Narrows): The draft staff report does not provide insight on the addition of the sulfate impairment. Being that the compound is naturally occurring, the County is requesting more information on how this impairment was determined.	Mojave River (Mojave Forks Reservoir to Upper Narrows) is recommended as an addition to the 303(d) list for sulfates based on data collected by the Lahontan Water Board between 2001-2005, 2010-2015, and on one occasion in 2013. Between 2001-2005, three of five annual averages exceeded the site-specific water quality objective for sulfates. Between 2010-2015, three of six annual averages exceeded the site-specific water quality objective for sulfates. In 2013, the single sample collected from the waterbody exceeded the site-specific water quality objective for sulfates. In total, 7 of 12 samples exceeded the water quality objective for sulfates in the waterbody, and California Listing Policy specifies that a waterbody exceeding a water quality objective at a frequency of 15% or greater for a conventional pollutant like sulfate warrants adding the waterbody to the 303(d) list (California List Policy, section 3.2, table 3.2). This is the basis for adding the Mojave River, Mojave Forks Reservoir to Upper Narrows, to the 303(d) list.
SB-8	San Bernardino County	Mojave River (Upper Narrows to Lower Narrows): The draft staff report does not provide insight on the addition of the sulfate impairment. Being that the compound is naturally occurring, the County is requesting more information on how this impairment was determined.	Mojave River (Upper Narrows to Lower Narrows) was listed on the 303(d) list as impaired by sulfates during the 2010 Integrated Report. In the time between the 2010 and 2018 assessment cycles, the United States Geological Survey (USGS) collected sulfates data from the waterbody on a bimonthly basis between 2010-2017. All eight of the annual average calculations for sulfates exceed the site-specific objective for the waterbody, which is greater than the 15% exceedance frequency threshold for listing on the 303(d) list (California List Policy, section 3.2, table 3.2).

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SB-9	San Bernardino County	Sheep Creek: Sheep creeks tributary, the smallest of the newly updated 303d listing creeks, is made up of mostly undevelopment mountainous terrain. This indicates that the water quality results of the testing done within this creek's tributary occurred naturally and should not be included in the 303d listings.	See response to SB-2, above.
SB-10	San Bernardino County	West Fork Mojave River below Silverwood: As is noted in the draft staff report, this portion of the Mojave River is generally an ephemeral stream augmented by Silverwood Reservoir discharges. The Water from Silverwood Reservoir is State Water Project supply. The 303d listing should reference or acknowledge this fact.	Lahontan Water Board staff will incorporate the recommended revisions into the Lines of Evidence contained in the Fact Sheets for the West Fork Mojave River below Silverwood in Appendix H to the staff report.
WK-1	Colin Kelly et al., Inland Empire Waterkeeper , Los Angeles Waterkeeper & Earth Law Center	The Clean Water Act and Porter-Cologne Water Quality Act (which incorporates the requirements of the Clean Water Act) mandate completion of 303(d) and 305(b) reports every two years by April 1 of even numbered years. The 2018 report therefore should have been submitted to U.S. Environmental Protection Agency ("U.S. EPA") on April 1, 2018. The report is more	Section 303(d) of the Clean Water Act requires states to submit 303(d) lists "from time to time." U.S. EPA's regulations which implement the Act specify the biennial deadline. (40 C.F.R. D 130.7(d).) Water Code section 13181, subdivision (e)(6), requires the State Water Board to work in conjunction with the California Water Monitoring Council to "develop the production of timely and complete" lists and reports.
		than fourteen months late and counting. Both the Clean Water Act and Porter-Cologne require the State Board to submit 303(d) lists and 305(b) reports to U.S. EPA every even numbered year on April 1, which the board typically does as an "Integrated Report" of both lists. California	The development of the Integrated Report is a significant undertaking. Staff devote considerable effort to assembling new data and information for each Integrated Report. Staff compile data and information from multiple sources, after issuing the public notice soliciting data and information from the public on November 3, 2016, with submittals requested by May 3, 2017. The aforementioned solicitation notice was emailed to an extensive email list.

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		Water Code section 13181(e)(6) requires the "[p]roduction of timely and complete water quality reports and lists that are required under sections 303(d), 305(b), 314, and 319 of the federal Clean Water Act" (Cal. Water Code § 13181(e)(6).) To address this, we ask that you call upon the State Board to agree to a binding schedule for completing its Integrated Report on time during all future cycles.	Millions of rows of data are submitted during the data solicitation period for consideration at each listing cycle. The use of CEDEN by many organizations as a repository for monitoring data, coupled with the enhancements we have made to our monitoring programs, have produced, as a practical matter, a significant volume of data that must be reviewed, processed, and managed until assessment recommendations can be made. It takes approximately two years to adequately process, map, review for quality, and assess the data to evaluate whether water quality standards are attained, and beneficial uses are being supported at the waterbody level. Once these preliminary assessments are complete, the Regional Boards and the State Water Board seek public input at several points during the development of the Integrated Report. The public review procedures provide for a transparent decision-making process that is responsive to stakeholder concerns and input.
			The State Water Board recognizes that producing timely and complete Integrated Reports is important. The State Water Board is currently working on several fronts to improve the process to administer the requirements of the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" ("Listing Policy"). This includes upgrading existing data assessment tools and scheduling overlapping integrated reporting cycles with the biennial submissions to U.S. EPA being the goal.
WK-2	Colin Kelly et al., Inland Empire Waterkeeper	The policy requires that all regions complete the report, but this report contains data from only three, noncontiguous regions. This is only a partial list of all of	The rotating region approach is consistent with federal requirements and is reflected in the State Water Board's recent amendment to the Listing Policy (Feb. 3, 2015). Indeed, U.S. EPA has now approved two of California's

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	, Los Angeles Waterkeeper & Earth Law Center	the regions that should be included in the Integrated Report. Though the State Board allowed other regions to submit data, by not requiring the submission, the reports remain incomplete in violation of both federal and state statutes. To address this, we ask that you call upon the State Board to end the "three cycle" listing approach such that the Integrated Report is fully updated every two years.	Integrated Reports (the 2012 and the 2014-2016 Integrated Report) that were comprised of the regional approach, as being consistent with federal requirements. For each integrated reporting cycle, the State Water Board uses the previous Integrated Report as its starting point and evaluates readily available data and information for the "on cycle" regions to determine whether additions to or deletions from that previous report is necessary. The Listing Policy (Section 6.1.2.1), states that the notice of solicitation for each Listing Cycle shall identify which Regional Water Boards will administer the listing process. It also provides that the "off cycle" regions may administer the listing process for one or more water segments that would lead to a direct listing change from the previous Listing Cycle. Consistent with the Listing Policy, the 2018 notice of solicitation identified the North Coast, Lahontan and Colorado River Basin Regional Boards for the 2018 Listing Cycle. Three of the six "off cycle" Regions have chosen to assess new data and update their Integrated Reports during the 2018 Listing Cycle.
WK-3	Colin Kelly et al., Inland Empire Waterkeeper , Los Angeles Waterkeeper & Earth Law Center	The current listing policy is insufficient and unlawful, as it does not require inclusion of all regions in the biennial reports. The Clean Water Act and Porter-Cologne requires California to identify all bodies of water for which technologically-based effluent limitations are insufficient to maintain water quality standards, which the Integrated Report will fail to do, because it only includes three of California's nine Water Board regions.	Please refer to response to comment WK-2. Additionally, the scope of permissible comments to which the Regional Board will provide a response pertains to the current 2018 integrated reporting cycle, and not to the Listing Policy.

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WK-4	Colin Kelly et al., Inland Empire Waterkeeper , Los Angeles Waterkeeper & Earth Law Center	The Clean Water Act, as implemented into state law by Porter-Cologne, requires listing all sources of impairment-including hydrologically-impaired waterways, such as those with low flows. Aside from being required, such listings are good public policy: Why would a state limit the amount of information it releases on impaired waters, information that could help it make better decisions about how to prioritize its resources? Many other states already correctly list hydrologically impaired waters, and so should the Lahontan Region. In the Lahontan Region, hydrologically-impaired waterways should be listed under Category 4C, which is reserved for waterways that are "impaired due to pollution not caused by a pollutant."2 Although hydrological impairments do not trigger TMDLs, as explained by U.S. EPA, "States can employ a variety of watershed restoration tools and approaches to address the source(s) of the impairment" for Category 4C listings." Based on the legal and public policy justifications, we ask that the Lahontan Regional Water Quality Control Board ("Lahontan Regional Board") to begin the practice of listing appropriate hydrologically impaired waterways. We recommend that you begin with those waterways that are undeniably impaired due to	Neither the Porter-Cologne Act nor the Clean Water Act require the inclusion of hydrologically impaired waterbodies on the 303(d) list or the 305(b) report. By its express terms, 303(d) list and the Listing Policy pertain only to pollutant impairments for which total maximum daily loads may be developed to address the pollutant impairment. The Water Board's approach is to place a waterbody in one Category only. Portions of the Mojave River and Squaw Creek are in Categories 5 and 4a respectively, so placing them in Category 4c would be inconsistent with the current approach. Additionally, the State Water Board has not established a consistent methodology by which waters impaired by "pollution" are placed in Integrated Report Category 4c. Without a defined methodology, Regional Water Board and State Water Board staff do not have a consistent and transparent approach to analyzing the extent to which flow-related alterations cause or impact water quality standards. There are efforts underway to develop flow objectives for several waterbodies and once established staff will likely be able to use them to assess waters under Clean Water Act section 305(b).

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		hydromodification based on readily available data and information. These may include, for example, the Mojave River (which has been severely dewatered by the over-utilization of interconnected groundwater) and Squaw Creek (noting that the State Board itself "recognize[d] that beneficial uses of Squaw Creek may also be affected by diminished flow conditions" in a 2007 resolution approving a sediment TMDL). The Lahontan Regional Board has an abundance of information supporting hydromodification listings from its work to establish regional instream flow requirements that protect beneficial uses.	
WK-5	Colin Kelly et al., Inland Empire Waterkeeper , Los Angeles Waterkeeper & Earth Law Center	Once again, there are too many barriers to the data submission process, discouraging full public participation. This includes the exclusion of data and information not submitted through CEDEN, or exclusion of data that fails to meet strict formatting and quality assurance requirements, such as the exclusion of all PDF submissions and the mandatory inclusion of a signed QAPP. The Board also once again did not commit to collecting all readily available data and information, regardless of whether it is submitted by the public. To address this, we ask that you call upon the State Board to expand the ability of the system to accommodate information in various formats.	Data that cannot be submitted into CEDEN because CEDEN is not designed to accept it, such as photographic evidence and continuous temperature data, is solicited and accepted if it meets the requirements of Sections 6.1.2 and 6.1.4 of the Listing Policy and as outlined in the data solicitation memo. Through the use of CEDEN for CEDEN-compatible data, Water Board staff are better able to standardize datasets, understand data quality, and perform accurate and consistent assessments of water quality data for 303(d) listing decisions. Tools and resources are available on the CEDEN website to assist the stakeholders and the public with uploading data, and the CEDEN Regional Data Centers are available to aid data providers in successful submittal of data into CEDEN. Furthermore, the utilization of CEDEN allows data collected to be analyzed and used by many other programs, making the resources spent on collecting and analyzing that data more valuable and widely utilized. The

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			quality assurance requirements ensure that 303(d) listing decisions are based on credible data.
WK-6	Colin Kelly et al., Inland Empire Waterkeeper , Los Angeles Waterkeeper & Earth Law Center	In completing this year's integrated report, the Water Boards used data only from May 2017 and earlier, forgoing several years of appropriate and necessary data. The data used to compile the list is therefore incomplete and outdated and the report therefore inaccurately represents the current state of impaired waters in the Lahontan Region. This incompleteness is a violation of both the Clean Water Act and Porter-Cologne, which require that the lists utilize "all available data" in compiling the lists. (Additionally, we note that the State Board listing policy allows the State Board to effectively ignore all of the data in six of the nine regions when compiling the Integrated Report for eventual submission to EPA.) To address this, we ask that you call upon the State Board to accept data for a longer period of time. We suggest a data submission deadline of a maximum of six months before the required submission date of the report.	In accordance with the Listing Policy (see sections 6 through 6.3), there are several steps in the data assessment process that must take place after the data submission deadline. It is not feasible to continue to accept data up to six months prior to the report being submitted for approval as any submitted data would need to be sufficiently analyzed and the Regional Board and State Board need to conduct their public review processes before the report can be submitted to U.S. EPA.