Docket Number: 58-0102-1802
Effective Date: 2019 Sine die
Rules Title: Water Quality Standards
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Public Notice
Hearings: [ ]Yes [X] No
Locations and Dates: N/A
Written Comment Deadline: 10/5/18

Descriptive Summary of Rule as Initially Proposed: This rulemaking has been initiated to make certain revisions identified as high priority in the 2017 Triennial Review of Idaho Water Quality Standards and to comply with federal requirements for consideration of EPA recommended (aka §304(a)) criteria (40 CFR 131.20): (1) Adopt aquatic life criteria for acrolein, carbaryl, and diazinon in accordance with EPA's current §304(a) recommended criteria, and (2) adopt EPA's current §304(a) recommended criteria for bacteria and clarify the definition of recreational use.

EPA's Recommended §304(a) Aquatic life Criteria for Acrolein, Carbaryl, and Diazinon
This rulemaking adds criteria for acrolein, carbaryl, and diazinon in Subsection 210.01. Currently, Idaho does not have aquatic life criteria for acrolein, carbaryl, and diazinon, although EPA has issued new recommended aquatic life criteria for these toxics. Acrolein is an aquatic herbicide and is known to be toxic to aquatic life, particularly amphibians and fish. In 2009, EPA added acrolein to the §304(a) list of aquatic life criteria. Carbaryl and diazinon are pesticides that are toxic to aquatic life, particularly invertebrates. EPA added diazinon to the §304(a) list of aquatic life criteria in 2005 and added carbaryl in 2012.

In order to avoid EPA promulgating federal standards for acrolein, carbaryl, and diazinon for Idaho, DEQ initiated negotiated rulemaking to revise these aquatic life criteria in Idaho's water quality standards. By adopting these criteria, DEQ will comply with federal requirements for consideration of EPA recommended criteria (40 CFR 131.20) and ensure that its criteria provide sufficient protection of aquatic life uses.

EPA's §304(a) Recommended Criteria for Bacteria
This rulemaking adopts EPA's 2012 §304(a) recommended criteria for bacteria. EPA's 2012 §304(a) criteria includes both *E. coli* criteria as well as enterococci criteria; either of which would be considered protective of contact recreation. States (and dischargers) can use either criterion to demonstrate compliance with water quality standards. This rulemaking also clarifies the definition of recreational use, recognizing that waters designated for primary contact recreation (PCR) also include recreational activities associated with secondary contact recreation (SCR).

Consideration of enterococci criteria as included in EPA's 2012 §304(a) recommendation is necessary to comply with federal requirements for consideration of EPA recommended criteria (40 CFR 131.20). Enterococci criteria are more directly related to incidences of gastrointestinal illnesses than *E. coli* criteria. In addition, rapid analytical techniques for enterococci are currently being developed. By adopting enterococci criteria, Idaho will be in a position to easily integrate any advances to improve sampling logistics (for example, extended holding times and field preservation to allow for monitoring and assessment of more remote waters, and rapid notification of affected swimming beaches and recreational facilities).

DEQ will also consider the adoption of statistical threshold values (STV) as criteria. The STV is a concentration that is not to be exceeded more frequently than 10% of valid samples collected in a 30-day period. By adopting EPA's 2012 §304(a) criteria recommendation, DEQ can meet a recommendation of the 2017 Triennial Review and meet federal requirements to consider EPA's 2012 §304(a) recommendations while providing the same level of protection for Idaho water bodies. In addition, this allows dischargers the option to request an alternative fecal indicator bacteria for monitoring compliance with water quality standards.

DEQ recommends that the Board adopt the rule, as presented in the final proposal, as a pending rule.

Negotiated Rule Making: [X] Yes [ ] No
The Negotiated Rulemaking Summary is attached.

Idaho Code § 39-107D Statement: This rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal

Relevant Statutes: Sections 39-105, 39-107, and 39-3601 *et seq*., Idaho Code

DEQ's Summary of the Basis for Revisions to Idaho's Recreational Water Quality Criteria is attached.

Costs to the Agency: DEQ expects to incur some initial training costs in addition to normal rulemaking costs. Once the rule is adopted, DEQ expects no changes in agency operational costs or staffing. The additional costs for training will come from existing general fund support of the surface water program.

Costs to the Regulated Community: This rulemaking is proposed to update three water quality criteria for aquatic life uses and to update the bacterial criteria for recreational uses. This rulemaking proposes to adopt new aquatic life criteria for the aquatic herbicide acrolein, as well as the insecticides carbaryl and diazanon, based on EPA's current recommended criteria. Discharges of these compounds are regulated under the existing NPDES pesticide general permit. DEQ does not expect the adoption of the new acrolein, carbaryl, and diazinon aquatic life criteria to result in increased treatment requirements. Adoption of the current EPA recommended recreational use enterococci and E. coli bacteria criteria is not expected to change costs to the regulated community as these criteria are similar in stringency to existing Idaho water quality criteria and can be assessed with currently approved sampling and analytical procedures for E. coli. Laboratory costs for enterococci are similar to those for E. coli, with a local Boise laboratory charging $22.00/sample for enterococci as compared to $18.00/sample for E. coli.

Temporary Rule [ ] Necessary to protect public health, safety or welfare
[ ] Compliance with deadlines in amendments to governing law or federal programs
[ ] Conferring a benefit

Docket Number: 58-0102-1802

Section	Section Title	Summary of Rule Changes Based on Public Comment
100	**Surface Water Use Designations.**	This section has not been changed. DEQ's Response to Comments is attached.
210	**Numeric Criteria for Toxic Substances for Waters Designated for Aquatic Life, Recreation, or Domestic Water Supply Use.**	This section has not been changed. DEQ's Response to Comments is attached.
251	**Surface Water Quality Criteria for Recreation Use Designations.**	This section has been changed. DEQ's Response to Comments is attached.

Rulemaking Docket 58-0102-1802 Summary of the Basis for Revisions to Idaho's Recreational Water Quality Criteria

Background

The Idaho Department of Environmental Quality (DEQ) has proposed updates to its criteria for protection of recreational uses. The proposed updates incorporate the US Environmental Protection Agency (EPA) 2012 recommendation for recreational water quality criteria (EPA 2012).

In accordance with §304(a) of the Clean Water Act (CWA), EPA is required to develop criteria for human pathogens that are protective of human health in recreational waters based on the most up-to-date scientific knowledge. EPA's most recent §304(a) recommendation for recreational waters was published in 2012 (EPA 2012). In 2018, EPA published a review of the scientific basis for the 2012 recommendation and determined that further revision was not necessary (EPA 2018).

DEQ identified addressing EPA's 2012 §304(a) recommended criteria as a high priority in Idaho's 2017 Triennial Review of Water Quality Standards (DEQ 2017). In addition, addressing the EPA 2012 §304(a) recommendation complies with federal requirements for states to consider EPA-recommended §304(a) criteria (40 CFR 131.20).

Overview of the EPA 2012 §304(a) Recommended Criteria

EPA's 2012 §304(a) recommended criteria use *Escherichia coli* (*E. coli*) and enterococci as fecal indicator bacteria (FIB) for potential fecal contamination and pathogen exposure. The recommended criteria include the three elements of numeric criteria—magnitude, duration, and frequency—and consist of both a geometric mean and a statistical threshold value (STV).

For culturable bacteria, such as *E. coli* and enterococci, concentrations are commonly expressed as either colony-forming units (CFU)/100 milliliters (mL) or most probable number (MPN)/100 mL, depending on the analytical method used. These units are equivalent and are both EPA-approved units for analysis of FIB for CWA purposes. Therefore, for clarity, DEQ refers to the concentration of FIB as counts/100 mL.

The criteria are based on the relationship between the concentrations of FIB and rates of illness reported by swimmers. EPA provides two estimated illness rates that would be considered protective of recreational use: 36 or 32 illnesses per 1,000 users. Selection of an illness rate is a risk-management decision that should be made by states (Table 1).

Table 1. EPA's 2012 recommended recreational water quality criteria based on two illness rates: 36/1,000 users and 32/1,000 users.

Indicator	EPA 2012 Recommended Criteria (counts/100 mL)			
	36 Illnesses/ 1,000 Users		32 Illnesses/ 1,000 Users	
	Geometric Mean	STV	Geometric Mean	STV
E. coli	126	410	100	320
Enterococci	35	130	30	110

The recommended criteria magnitude are for a geometric mean concentration of FIB that corresponds to the 50th percentile of FIB concentrations associated with the selected illness rate and an STV concentration of FIB that corresponds to the 90th percentile of FIB concentrations associated with the selected illness rate. The magnitude, duration, and frequency of EPA's recommended criteria for *E. coli* and enterococci that correspond to an illness rate of 36/1,000 users is presented in Table 2.

Table 2. Magnitude, duration, and frequency for *E. coli* and enterococci criteria that correspond to an illness rate of 36/1,000 users.

	E. coli		Enterococci	
	Geometric Mean	STV	Geometric Mean	STV
Magnitude (counts/100 mL)	126	410	35	130
Duration (days)	30	30	30	30
Frequency	—	10%	—	10%

Statistical Threshold Value (STV)

The STV was derived based on the 90th percentile of the expected distribution of FIB concentrations associated with the corresponding geometric mean. For example, it would be expected that at any given location, concentrations of *E. coli* would exceed 410 counts/100 mL less than 10% of the time without a corresponding exceedance of the 30-day geometric mean of 126 counts/100 mL (Table 2). Conversely, an exceedance of the STV at a frequency greater than 10% would have a greater probability of a corresponding exceedance of the geometric mean.

The STV magnitude and frequency are linked. For example, in EPA's final recommended criteria, they selected an STV magnitude that corresponded to the 90th percentile of the water quality distribution associated with the geometric mean criterion and a corresponding excursion frequency of 10%.

Earlier drafts of the 2012 EPA recommended criteria based the STV on the 75th percentile of the expected distribution with a maximum excursion frequency of 25%. If Idaho proposed to deviate from the 2012 EPA guidance, we would need to select an STV magnitude that corresponded to the selected frequency. For an excursion frequency of 25%, the appropriate corresponding percentile would be the 75th percentile. For *E. coli*, the 75th percentile concentration would be 235 counts/100 mL, as opposed to the recommended 90th percentile concentration of 410 counts/100mL.

Proposed Rule

Idaho's use categories for designation of recreational use refer to primary contact recreation (PCR) and secondary contact recreation (SCR). A list of characteristic activities distinguishes the two subcategories of recreational use, based on the likelihood of ingesting water. This distinction relates only to exposure to bacteria and dates back to 1999 when Idaho had fecal coliform as a FIB. At that time, there were two distinctly different criteria values for the two recreational use subcategories. In practice, PCR would include all the activities associated with secondary contact recreation, in addition to activities (such as swimming) that would include full immersion and a higher likelihood of incidental ingestion of water.

The current criterion is a geometric mean concentration of 126 counts/100 mL for *E. coli* regardless of this distinction, with different single sample maximum (SSM) thresholds that trigger additional monitoring to calculate a geometric mean. While the SSM values are different for PCR or SCR, the SSM is not a criterion. Instead, the SSM values only provide a threshold concentration that, if exceeded, requires additional monitoring to calculate a geometric mean for comparison to the criterion.

DEQ is proposing to adopt EPA's 2012 recommended criteria at the 36/1,000 user risk level for both *E. coli* and enterococci. The proposed revision includes designation of a 30-day duration component as well as adoption of the recommended STV magnitude and frequency for both indicators.

In addition, DEQ's proposed rule includes language specifying that either indicator (*E. coli* or enterococci) are sufficient for determining compliance with the FIB criteria, and that the geometric mean must be based on a minimum of 5 samples collected every 3 to 7 days over a 30-day period.

The proposed rule retains the distinction between PCR and SCR uses. However, SSM thresholds for additional monitoring are removed and instead replaced with STV criteria with a 10% frequency component.

E. coli in Idaho

Based on readily available data, DEQ has calculated 332 geometric means of *E. coli* concentrations statewide. Of these 332 geometric means, 258 had at least one sample with *E. coli* concentrations greater than 406 counts/100 mL, which is nearly equivalent to the EPA recommended STV of 410 counts/100 mL when using most probable number (MPN) analysis.

Of these 258 sites, 231 (89.5%) had geometric mean concentrations that exceeded the criterion of 126 counts/100 mL. These results indicate a 10.5% false positive error rate based on using a single exceedance of the STV concentration alone. In other words, if a decision on criteria compliance was based solely on a single sample exceeding the STV value, we would expect that 10.5% of our determinations of criteria exceedance would be incorrect. These false positive errors are also referred to as Type I errors.

Of the 74 geometric means where the proposed STV concentration was never exceeded by a single sample, 12 had geometric mean concentrations that exceeded the 126 counts/100 mL criterion—a 16% false negative error rate. In other words, if a decision on criteria compliance was based solely on a single sample *not* exceeding the STV value, we would expect that 16% of our determinations of criteria compliance would be incorrect and that the 30-day geometric mean would be exceeded. These false negative errors are known as Type II errors.

This analysis indicates that the vast majority (nearly 90%) of data sets where a single sample exceeds the STV concentration would likewise have an exceedance of the geometric mean criteria, confirming that the basis of the STV used in deriving EPA's recommended STV criterion is applicable to Idaho.

However, the proposed criteria does not adopt the STV as an instantaneous criterion but rather as a magnitude that is not to be exceeded more than 10% of the time in a 30-day period. In other words, we would not be basing criteria compliance decisions on single sample results. Additional monitoring to determine the frequency of STV concentration exceedances should further reduce Type I errors.

Reporting Requirements for Permitted Dischargers

A search of the EPA Integrated Compliance Information System (ICIS) database shows 136 permitted dischargers in Idaho having effluent limits based on either the PCR or SCR SSMs of 406 or 576 counts/100 mL, respectively. When discharge monitoring results indicate an exceedance of these values, the discharger is required to notify EPA or DEQ within 24 hours of the exceedance and collect additional samples to demonstrate compliance with the geometric mean criterion of 126 counts/100 mL.

Currently, of the 136 permits with limits based on SSM values, 115 have limits based on the PCR value of 406 counts/100 mL; 21 have limits based on the SCR value of 576 counts/100 mL.

Summary

DEQ is proposing to revise Idaho recreational water quality criteria. These revisions would add enterococci criteria as an additional fecal indicator and replace SSM thresholds for additional monitoring with STV criteria. The addition of enterococci as an indicator will position Idaho to take advantage of future advances in technology related to extended holding times for enterococci. The STV concentration for both indicators is based on the 90th percentile of the distribution of concentrations associated with the respective geometric mean criterion and therefore has a corresponding excursion frequency of 10% of valid samples collected over a 30-

day period. Available data confirm the STV criteria are valid for Idaho based on the likelihood that the geometric mean criterion would be exceeded if the STV criterion is exceeded.

The proposed rule language makes clear that either *E. coli* or enterococci would be considered appropriate for assessing recreational use support; dischargers and others do not need to monitor for both indicators and can choose which indicator to monitor to determine compliance with the FIB criterion. The rule language also stipulates the minimum sample requirements for comparison to the geometric mean criterion.

Adoption of the proposed revisions would ensure that Idaho is meeting the CWA requirement to adopt scientifically defensible criteria to support recreation, meet the priority identified in the triennial review, and meet federal requirements in 40 CFR 131.20.

References

DEQ (Idaho Department of Environmental Quality). 2017. *2017 Triennial Review of Idaho Water Quality Standards*. Boise, ID: DEQ.

EPA (US Environmental Protection Agency). 2012. *Recreational Water Quality Criteria*. Washington, DC: EPA, Office of Water. 820-F-12-058.

EPA (US Environmental Protection Agency). 2018. *2017 Five-Year Review of the 2012 Recreational Water Quality Criteria*. Washington, DC: EPA, Office of Water. 823-R-18-001.

CFR (Code of Federal Regulations). 2015. "State Review and Revision of Water Quality Standards." 40 CFR 131.20.

DEQ's Response to Comments
Proposed Rule Docket No. 58-0102-1802

1. Association of Idaho Cities (AIC)	4. City of Nampa
2. Idaho Ground Water Appropriators, Inc. (IGWA)	5. U.S. EPA Region 10 (EPA)
3. IDEXX	6. Idaho Water Users Association
	7. Meridian Beartrack Company

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
1	Section 251	**1, 2**	The Idaho Department of Environmental Quality (DEQ) is proposing to revise recreational uses and criteria. Our cities take the protection of public health seriously. Our cities recognize the value of valid data to protect our citizens and supports the use of the proposed single "statistical threshold value" to trigger swimming beach closures - only. AIC also recognizes the value of valid, and adequate, data when Idaho develops beneficial use impairment designations. With this in mind, AIC urges the DEQ to: •Work with the Idaho Health Districts to provide and maintain high-quality, rapid bacteria testing equipment so that technical staff can quickly respond to perceived or real public health risks within our communities; •Use the recommended excursion rate of 10% based on 90th percentile "statistical threshold value" (STV) for freshwater swimming beach notifications, as recommended in EPA's 2012 Recreational Water Quality Criteria (RWQC) update; •Revise the rule language to not allow the department to make beneficial use impairment determinations based on a single sample STV as proposed; •Clarify that a 30-day geomean may apply to effluent limits, but that a 90-day geomean would apply to receiving water beneficial use determinations, as the States of Oregon and Washington have; •Apply a 25% exceedance of a STV over a 90-day geometric mean of 126 C/100 ml for e. coli and a 25% exceedance of a STV over a 90-day geometric mean of 30 enterococci in determining beneficial use support determinations;[1] and, •Retain the rule language that provides for the opportunity to collect additional bacteria data in order to assure our Idaho communities that effluent limit violations and receiving water impaired beneficial use determinations are valid. _____ [1]In the development of the 2012 Guidance EPA proposed the 25% STV exceedance and the 90-day averaging period in light of the case studies and data collection results. It was only during the final month of the 2012 Guidance development that the EPA adopted an unsupported policy position of a 10% STV exceedance frequency over any 30-day period. Personal communication by Adrienne Nemura, Senior Principal, Geosyntec Consultants.	• DEQ and the health districts use the state lab or private laboratories to analyze samples for *E. coli* and other pollutants, and do not intend to construct and staff analytical labs within the agency. However, samples for *E. coli* and enterococci results have 6 hour holding times prior to the start of sample analysis. Sample analysis requires a 24 hour culture, and results are available from the laboratory within 30 hours from the time of collection. DEQ does coordinate monitoring and public health advisories with the public health districts, and will continue to do so. • The proposed rule does not require beneficial use determinations be made on a single sample STV. The rule, as proposed, has a 10% excursion frequency component, and provides for additional sample collection prior to making a final recreation use determination, and does not require any action based on a single sample, but rather based on a 10% excursion frequency.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
				• While DEQ acknowledges the variability inherent in monitoring ambient waters for bacteria, we do not believe that a 90 day duration is necessary or advisable for recreational criteria. In the attachment included with AIC's comment letter, the disagreement between the 30-day and 90-day geomean results were "predominately a result of a single monthly measurement that lie between the geomean and STV over the period of record, and may thus have a low probability of reflecting excessive risk of illness." However, DEQ's rule, as proposed, requires a minimum of 5 samples over 30 days. In many waters throughout Idaho, the primary time period for recreational use may not extend 90 days. Additionally, in order to properly represent conditions throughout the 90 day period would require many more samples than currently are required to represent 30 days; extending the duration to 90 days would further burden DEQ staff and others monitoring compliance with the criterion.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
				Finally, the attachment referenced in AIC's comment letter states that "…EPA considers 30 days to be an optimal duration period to capture both short-term and long-term variability…" and that "Adoption of EPA's recommended criteria with a 30 day duration period, combined with frequent monitoring (e.g., more than once a month), provides the best means of providing protection and ensuring that assessment results accurately reflect attainment status." Based on EPA's recommended §304(a) criteria and the information provided as an attachment referenced in AIC's comment letter, the relatively short recreation season in Idaho, the cost associated with additional monitoring required to represent a 90-day duration, and the inclusion of minimum sample requirements in DEQ's proposed rule, DEQ does not believe that pursuing a 90-day duration component for the proposed criteria would be appropriate.

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2		**2**	[IGWA] comments mirror many of the Association of Idaho Cities comments which we believe are reasonable and should be accepted. The major concern of IGWA's municipal cities is with the IPDES permits could come into violation of recreation use designation in late June & July because of higher ambient temperatures and the nesting & breeding migratory waterfowl could cause spikes of e-Coli bacteria for short durations.	See response to comment #1 above. While higher ambient temperatures and nesting waterfowl might lead to higher concentrations of *E. coli*, this increase would presumably also indicate increased health risk at those times, making application of the criteria appropriate for protecting human health.
3	Section 251	**1**	AIC asserts that the application of a 90-day geomean vs. a 30-day geomean for water body assessments is the most common sense path forward because (1) Idaho does not contain any coastal, marine swimming beaches, and (2) the use of a 90-day geometric mean is fully consistent with the October 30, 2015 communication from EPA's Standards and Health Protection Division to the Water Quality Standards Coordinators: Narrative Justification for Longer Duration Period for Recreational Water Quality Criteria *[attachment to AIC's comment letter]*.	See response to comment #1 above.
4	Section 251	**3**	IDEXX commends the Idaho Department of Environmental Quality (Department), on the proposed changes to the Water Quality Standards, specifically by including enterococci as an additional bacterial indicator of fecal contamination. We appreciate the opportunity to participate in the public comment period and at this time, IDEXX would like to request the Department to consider the following comment. Recommend editing the units associated with the bacteria indicators, found in Section 251.02, from "colony forming units (CFU) per one hundred (100) ml" to "counts per 100 mL." Recommend editing the units associated with the bacteria indicators, found in Section 251.02, from	DEQ revised the units associated with the bacteria indicators as suggested.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
			"colony forming units (CFU) per one hundred (100) ml" to "counts per 100 mL." Recommend editing the units associated with the bacteria indicators, found in Section 251.02, from "colony forming units (CFU) per one hundred (100) ml" to "counts per 100 mL."	

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
5	Section 100	**4**	The City of Nampa (City) is concerned about the Department of Environmental Quality (DEQ's) proposed revisions of recreational uses and criteria, specifically the consolidation of primary and secondary contact recreation beneficial uses. The DEQ's suggestion that there "appears to be no value in maintaining a distinction between primary and secondary contact recreation" is inconsistent with the City's position. The Nampa Wastewater Treatment Plant (WWTP) is impacted by the designated beneficial uses and subsequent criteria that are enforced. A secondary contact recreation designation is in place for Indian Creek, which the Nampa WWTP discharges to under its National Pollutant Discharge Elimination System (NPDES) permit. Indian Creek is a small, intermittent waterbody with low-exposure risk to the community; the secondary contact recreation designation is the most appropriate recreational criteria. A shift to primary contact recreation would result in increasingly stringent limits and additional expenditures that are not necessary to protect public uses for waterbodies like Indian Creek. The implications of these listings to municipal WWTP's and the communities they serve is significant. The City believes that maintaining a primary and secondary contact recreational use is an approach that provides practical and realistic water quality protection to waterbodies. Distinguishing between recreational uses is protective of water quality, reasonable for point sources, and facilitates alignment with public uses of waterbodies.	Prior to publishing the proposed rule in the Idaho Administrative Bulletin, DEQ withdrew the draft rule language that would collapse recreation use subcategories into a single contact recreation use. DEQ's current proposal maintains a distinction between primary and secondary contact recreation and has revised the definitions to clarify that all activities included in SCR are also included in PCR: *02. Recreation.* *a. Primary contact recreation (PCR): water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving. <u>PCR includes all activities associated with Secondary Contact Recreation (SCR).</u>* *b. Secondary contact recreation (SCR): water quality appropriate for recreational uses on or about the water and which are not included in the primary contact category. These activities may include fishing, boating, wading, infrequent swimming, and other activities where ingestion of raw water is not likely to occur.*

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6	Section 100	**5**	The EPA has reviewed the DEQ's proposed rule and offers the following comments for your consideration. **Primary Contact Recreation Activities** The proposed rule includes language clarifying that the designated use for primary contact recreation includes all activities associated with secondary contact recreation. The EPA understands this change provides clarity and consistency with the DEQ's long standing interpretation of PCR and SCR. In addition, the DEQ's interpretation of PCR and SCR activities is provided in the DEQ Water Body Assessment Guidance.[2] Section 3.2.2 of the document includes the following statement, "Waters used or suitable for PCR are also suitable for SCR activities such as fishing." The EPA supports the proposed revision to clarify activities associated with primary contact recreation. IDAPA 58.01.08.100.02.a *Primary contact recreation (PCR): water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving. PCR includes all activities associated with secondary contact recreation (SCR).* _____ [2]Water Body Assessment Guidance. 3rd Edition. Idaho Department of Environmental Quality. October 2016. pp. 118.	Thank you for your comment.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
7	Section 251	**5**	**Sample Size and Geometric Mean** The language regarding the Geometric Mean Criterion for E. coli and enterococci (IDAPA 58.01.08.251.02.a.i and b.i) states, "based on a minimum of five (5) samples taken every three (3) to seven (7) days over a thirty (30) day period." The EPA reiterates its previous recommendation, provided in our comment letter of June 5, 2018, that the DEQ not include data sufficiency clauses/statements addressing the sample number in its statement of criteria. Instead, the EPA recommends that Idaho include these statements in its assessment methodology for assessing compliance with the recreational criteria. If the language is retained in the DEQ's water quality standards, then the EPA plans not to act on the language as it does not meet the EPA's test for what constitutes a new or revised water quality standard.	DEQ believes that including the data sufficiency statements clarify the rule for both DEQ staff and the public.
8	Section 210	**5**	**Aquatic Life Criteria for Acrolein, Carbaryl and Diazinon** The proposed rule at IDAPA 58.01.02.210.01, Table of Numeric Criteria for Toxic Substances, includes the addition of acute and chronic aquatic life criteria for acrolein, carbaryl and diazinon. The criteria adopted by the DEQ for these pollutants are the same as the EPA's national recommended CWA section 304(a) water quality criteria. The EPA is pleased that the DEQ has adopted acute and chronic aquatic life criteria for these pollutants and supports the DEQ's proposed rule.	Thank you for your comment.
9	General	**6**	The Idaho Water Users Association ("IWUA") provides the following comments on the Idaho Department of Environmental Quality's ("IDEQ") consideration concerning the agency's current rulemaking regarding primary and secondary recreational designations under Idaho's water quality standards (Docket No. 58-0102-1802). As discussed herein, (1) irrigation water delivery facilities are not recreational facilities and should not be subject to primary or secondary contact recreation water quality standards; and (2) the proposed rule's primary and secondary recreation standards offer no difference and effectively eliminate distinct standards. **Irrigation water delivery facilities are not recreational facilities** Idaho's irrigation facilities were created for the conveyance of agricultural water. They were not created for swimming, fishing or other recreational activities. IDEQ recognized as much in its Issue Paper #1 relative to the 2017 triennial review when it stated that "the primary use of a man-made waterway is for the conveyance of water to and from agricultural or residential lands ... They were developed to move	Initially, DEQ proposed to collapse both the PCR and SCR uses into a single REC use based on both use subcategories having the same criterion. However, through the negotiated rulemaking process it became clear that there was still a desire to maintain the different use categories, even though the criterion is the same regardless. Section 101(a) (2) of the CWA requires that all jurisdictional waters of the US be protected for aquatic life and recreation uses. However, requiring water quality sufficient for any activity does not indicate that the activity is without

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			irrigation water and were not built with the intention of providing for aquatic life or recreation use."[1] Any encouragement of recreation in and around these facilities is dangerous and irresponsible. Furthermore, it is contrary to regulatory authority to place any use designation on these waterways. [1] http://www.deq.idaho.gov/media/60179851/triennial-review-modified-aquatic-life-use-undesignated-waters-paper-1.pdf	physical risk or is safe. There are no use designation changes in this rulemaking. Rather, we have clarified that all waters designated for PCR are also expected to support SCR, which was simply a clarification of DEQ's interpretation of the PCR use. Under currently approved standards, the only applicable numeric criterion for both PCR and SCR is the geometric mean concentration of 126 organisms/100 mL. Current standards do provide for two distinct SSM thresholds (406 organisms/100mL for PCR and 576 organisms/100mL for SCR). However, these thresholds are not criteria, and instead are thresholds that require additional monitoring to collect sufficient samples to calculate a geometric mean for comparison to the criterion.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
10	General	**6**	The future success these systems depends on the ability to continue operating and maintaining them as irrigation delivery facilities -not as swimming, fishing, recreational or other facilities. It is untenable that water delivery and drainage facilities should be subject to such designations and/or TMDL requirements. Such obligations could cripple Idaho's agricultural economy. To the extent any designation of man-made irrigation facilities is made, IDEQ regulations provide that such facilities are only designated to "protect the use for which they were developed." IDEQ regulations define man-made waterways as "Canals, flumes, ditches, wasteways, drains, laterals, and/or associated features, constructed for the purpose of water conveyance. This may include channels modified for such purposes prior to November 28, 1975." IDAPA 58.01.02.010.58. The regulations further direct how IDEQ should treat man-made waterways: Man-Made Waterways. Unless designated in Sections 110 through 160, man-made waterways are to be protected for the use for which they were developed. IDAPA 58.01.02.101.02. Since irrigation facilities are identified or otherwise designated in "Sections 110 through 160," this regulation mandates that man-made irrigation and drainage facilities must be protected "for the use for which they were developed." There is no basis in the regulations to designate these facilities for any other purpose (including, but not limited to, primary or secondary contact recreation). Again, encouraging recreational use of irrigation facilities is poor policy. Sadly, children and adults die nearly every year in irrigation facilities. Applying recreational-based water quality standards to these facilities sends a dangerous message. Moreover, it renders Idaho's man-made waterways provision meaningless.	See response to comment #9 above. There are no use designation changes in this rulemaking, including to man-made waters. Rather, we have clarified that all waters designated for PCR are also expected to support SCR, which was simply a clarification of DEQ's interpretation of the PCR use.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
11	Section 100	**6**	**The Proposed Rule Eliminates any Distinction Between Primary and Secondary Contact Recreation** Initial drafts of IDEQ's proposed rule amendment eliminated the primary/secondary recreation distinction -creating one "recreation" standard. Following several rounds of public meetings and comments, IDEQ issued the currently proposed rule. Under the current draft, IDEQ would maintain different designations for primary and secondary contact recreation. However, a review of the proposed rule reveals that this is a distinction without a difference. Indeed, notwithstanding the primary/secondary contact designation distinction, the proposed rule would adopt identical standards for each designation. The existing rule maintains distinct single sample maximum standards for primary and secondary recreational designations (406 v. 576 E.coli organisms per 100 ml). IDAPA 58.01.02.251.01.b. However, the proposed rule amendment would create the same single sample maximum of 410 CFU/100 ml for each designation. The distinction between primary and secondary recreation is an important one. While primary recreational designations are intended for waters wherein there is anticipated "prolonged and intimate contact by humans," secondary recreational designations are not intended for such purposes (rather, they may be used for "fishing, boating, wading, infrequent swimming," etc.). IDAPA 58.01.02.100.02. By conflating the single sample maximums for each designation, IDEQ would effectively eliminate the secondary contact recreation distinction. IDEQ should clarify its rule to create distinct standards for primary and secondary contact recreation.	See response to comments # 1, 5 and 9 above. As stated in response to comment #9 above, the current applicable standard does not have distinct criteria for PCR and SCR; this would not be a change. The current rule does have distinct SSM values for PCR and SCR. However, the SSM is *not* a criterion. Under current WQS, only the geometric mean of 126 organisms/100 mL is a criterion, and this value applies to both PCR and SCR. The proposed STV criterion of 410 CFU/100mL is *not* a single sample maximum, but rather a concentration that is not to be exceeded more than 10% of the time over 30 days.
12	Section 100	**7**	In short, the distinction and associated risks between primary and secondary contact in Idaho waterways is a real one, and deserves distinction in the setting and enforcement of water quality standards. Meridian Beartrack Co agrees with the basis of comments provided by the City of Nampa and Idaho Water Users Association, among others.	See response to comment #5 above.

Department of Environmental Quality

Negotiated Rulemaking Summary
Idaho Code § 67-5220(3)(f)

Water Quality Standards, IDAPA 58.01.02
Docket No. 58-0102-1802, Dated July 26, 2018

This rulemaking has been initiated to revise recreational use criteria and aquatic life criteria for three toxics.

The Notice of Negotiated Rulemaking was published in the May 2018 issue of the Idaho Administrative Bulletin, and a preliminary draft rule was made available for public review. Meetings were held on May 31 and June 28, 2018. Key information was posted on the DEQ rulemaking web page and distributed to the public. Members of the public participated in the negotiated rulemaking process by attending the meetings and by submitting written comments.

All comments received during the negotiated rulemaking process were considered by DEQ when making decisions regarding development of the rule. For comments that were not incorporated into the draft rule, DEQ's response to those comments is attached. At the conclusion of the negotiated rulemaking process, DEQ formatted the final draft for publication as a proposed rule in the Idaho Administrative Bulletin. The negotiated rulemaking record, which includes the negotiated rule drafts, written public comments, documents distributed during the negotiated rulemaking process, and the negotiated rulemaking summary, is available at www.deq.idaho.gov/58-0102-1802.

DEQ's Response to Comments/Negotiated Rulemaking Summary
Docket No. 58-0102-1802, Dated July 26, 2018

1. Association of Idaho Cities	

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
1	General	**1.**	"AIC urges the DEQ to ensure rapid bacteria testing equipment is available at each DEQ Regional Office so that DEQ staff can quickly respond to perceived or real public health risks within our communities."	DEQ uses the state lab or private laboratories to analyze samples for *E. coli* and other pollutants, and does not intend to construct and staff analytical labs within the agency. However, samples for *E. coli* and enterococci results have 6 hour holding times prior to the start of sample analysis. Sample analysis requires a 24 hour culture, and results are available from the laboratory within 30 hours from the time of collection.
2	General	**1.**	"We also are concerned about 303(d) impairment listings that are based on overly conservative interpretations of US EPA's 2012 recommended federal criteria that were developed for beaches and subsequently recommended for all primary contact recreation waters."	While EPA's recommendation is based on epidemiological studies conducted at beaches, the criteria are based on rates of illness associated with swimming or other similar recreational activities. While not all waters are suitable for swimming or full immersion, the Clean Water Act does have the stated goal that all waters of the US will meet water quality goals that would support swimming. From EPA's 2012 304(a) recommendation: *Seven studies were performed at temperate beaches primarily impacted by wastewater treatment plants (WWTPs) discharging effluent from treated municipal sewage. Three of those beaches were marine water and four were fresh water. Studies also were performed at two additional beaches: a temperate beach in Surfside, South Carolina impacted by urban runoff sources, and a tropical beach in Boquerón, Puerto Rico. EPA also considered epidemiological studies from other research efforts in developing these recreation criteria.*[1]

[1] EPA (US Environmental Protection Agency). 2012. Recreational Water Quality Criteria. Washington, DC: EPA, Office of Water. Washington, DC. 820-F-12-058. 68 pp.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
3		**1.**	AIC supports the use of either enterococci **or** E. coli data to assess potential risk to public health due to bacterial contamination in waters where people swim and play, and withdraws our comments regarding whether one might provide a more accurate assessment of risk. AIC anticipates improvements in public health risk assessment tools in the future and looks forward to working with the DEQ as the technology develops to accurately and quickly detect better indicators of harmful pathogens.	Thank you for your comment.
4		**1.**	AIC does not agree that there "appears to be no value in maintaining a distinction between primary and secondary contract [*sic*] recreation" simply because the current geometric mean criteria are the same. Instead, AIC urges the DEQ to recognize that the risks to public health are significantly reduced when swimming is not physically possible within certain water bodies due to either a lack of water depth or other factors. These differences in risk are reflected by the current approach in Idaho to apply a higher "single sample maximum" value to secondary contact recreation. The adoption of the proposed approach will cause an increase in monitoring and impairment listings of water bodies that have a low -exposure risk without a corresponding increase to public health protection. Therefore, AIC opposes the collapse of primary and secondary contact recreation use designations into a single primary contract recreation use.	DEQ has revised the proposed rule to maintain a distinction between Primary and Secondary contact recreation, and has revised the definitions to clarify that all activities included in SCR are also included in PCR: *02. Recreation.* *a. Primary contact recreation (PCR): water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving. PCR includes all activities associated with Secondary Contact Recreation (SCR).* *b. Secondary contact recreation (SCR): water quality appropriate for recreational uses on or about the water and which are not included in the primary contact category. These activities may include fishing, boating, wading, infrequent swimming, and other activities where ingestion of raw water is not likely to occur.*

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
5		**1.**	AIC supports the adoption of a "statistical threshold value" (STV) for use; but only supports the application of the proposed STV when ample data is available to assess whether 25% of the samples collected exceed the proposed value over any 90-day period with valid samples. AIC urges the DEQ to promulgate the new criteria based on a 25% exceedance over a 90-day period based on our understanding that the EPA is no longer objecting to longer averaging periods.	Earlier drafts of the 2012 EPA Recommended Criteria based the STV on the 75th percentile of the expected distribution with a maximum excursion frequency of 25%. Based on review of public comments and further scientific analyses, EPA modified the STV to the 90th percentile of the water quality distribution with an excursion frequency of 10% The STV magnitude and frequency are linked. For example, in EPA's final Recommended Criteria, they selected an STV magnitude that corresponded to the 90th percentile of the water quality distribution associated with the geomean criteria; it is expected that 10% of the time, *E. coli* concentrations would exceed the STV without a corresponding exceedance of the geomean. Based on Idaho data, the proposed *E. coli* STV of 410 CFU/100 L does correspond with an approximate 90% frequency of exceeding the geomean of 126 CFU/100 mL. Therefore, if Idaho proposed to deviate from the 2012 EPA guidance, we would need to select an STV magnitude that corresponded to the selected frequency. For an exceedance frequency of 25%, the appropriate corresponding percentile would be the 75th percentile, which would be 235 CFU/100 mL. It would not be appropriate nor defensible to select the 90th percentile of the water quality distribution but apply an exceedance frequency greater than 10%. Furthermore, increasing the duration component from 30 days to 90 days for the STV would also require increasing the duration component for the geomean. While DEQ acknowledges the variability inherent in monitoring ambient waters for bacteria, we do not believe that a 90 day duration is necessary or advisable for recreational criteria. Extending the duration to 90 days would further burden DEQ staff and others monitoring for compliance with the criterion.

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
6		**1.**	AIC opposes application of the STV where only 1 sample is available for any purpose other than swimming advisories at designated beaches. Those tasked with assessing risks to public health due to bacterial contamination of swimming waters understand that the bacteria generating sources and conveyance patterns create intermittent and fragmented concentrations. AIC urges the DEQ to take the uncertainty associated with the result from a single sample into account during this rulemaking proceeding. Instead, AIC supports retention of the current rule that provides for additional sample collection prior to the DEQ making a final recreation use support determination.	Current NPDES permits use the STV or SSMs as threshold values for requiring a 24 hour notice of exceedance to DEQ and EPA… The proposed rule provides for additional sample collection prior to making a final recreation use determination, and does not require any action based on a single sample, but rather based on a 10% exceedance frequency. Many permittees are monitoring more frequently than weekly to determine compliance, and any action would require > 10% exceedances of the STV.
7		**1.**	AIC opposes the DEQ's proposal to use the STV as the basis of water quality based effluent limits (WQBEL) and for total maximum daily load (TMDL) targets for non-continuous or episodic discharges. Non -continuous or episodic discharges can occur at any time; however, when these occur during high runoff and wet weather events we urge to [*sic*] Department to apply common sense and acknowledge that recreational uses do not generally occur at these times. Instead, we suggest the development of appropriate "wet weather" criteria for the protection of human and aquatic health during extreme events.	DEQ does not intend to develop alternate criteria for wet weather. How STVs and geomeans will be integrated into permit limits will be permit and TMDL dependent and will follow appropriate guidance such as the Idaho Pollutant Discharge Elimination System (IPDES) Effluent Limit Development Guidance (http://www.deq.idaho.gov/media/60181085/ipdes-effluent-limit-development-guidance-1217.pdf).