



Association of Idaho Cities
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July 29, 2018

Ms. Paula Wilson, Administrative Rules Coordinator
Idaho Department of Environmental Quality
1410 N Hilton
Boise, ID 83706

Re: Docket No. 58-0102-1802 Revision of Recreational Use and Criteria; Adoption of Aquatic Life Criteria for Three Toxics; Final AIC Comments Prior to September Bulletin Posting

Dear Ms. Wilson/Paula,

The Association of Idaho Cities (AIC) serves to advance the interests of the cities of Idaho through legislative advocacy, technical assistance, training, and research. Idaho cities play important roles as primary implementers of the Clean Water Act, representing over 70% of all Idaho residents. These stakeholders have a significant interest in the development of water quality standards, rules, and guidance related to the protection of human and aquatic life. AIC is actively engaged in water quality issues through the work of our Environment Committee, chaired by Boise City Council President Pro Tem Elaine Clegg and our Municipal Water Users Group, chaired by Jerome City Council President Bob Culver.

The Idaho Department of Environmental Quality (DEQ) is proposing to revise recreational uses and criteria; and adopt aquatic life criteria for three toxics: acrolein, carbaryl, and diazinon. Our member cities take the protection of public health seriously and we also recognize the value of valid assessment data prior to potentially disruptive responses such as swimming beach closures. With this in mind, AIC once more 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.

EPA's 2012 Recreational Water Quality Criteria (RWQC) update recommends the criteria magnitude be expressed as a geometric mean (GM) value and a Statistical Threshold Value (STV) (i.e., used together) based on the understanding that, together, they indicate whether the water quality is protective of the designated recreation use. The GM and the STV serve two different purposes: the GM is designed to protect the long-term health of the waterbody, while the STV is designed to catch short-term excursions. Because the criteria magnitude is used for a variety of purposes, AIC urges DEQ to apply the criteria differently depending on the assessment needs and **supports** the following:

- The use of 2012 RWQC recommended excursion rate (10% based on 90th percentile STV) for freshwater swimming beach notifications.
- The use of a 25% exceedance of a STV over a 90-day geometric mean of either 126 C/100 ml for e. coli and a 25% exceedance of a STV over a 90-day geometric mean of 30 enterococci in order to protect the long-term health of a waterbody.¹ The application of a 25% exceedance of a STV

¹ In the development of the 2012 Guidance EPA proposed the 25% STV exceedance & 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

over a 90-day geometric mean vs. a 30-day geometric mean is supported by AIC 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 (attached).

- The establishment an Idaho "Natural Source Exclusion Approach"² statewide bacteria TMDL development framework to allow Idaho resources for "clean-up" to be directed to areas with anthropogenic sources instead of areas with natural sources of bacteria.

AIC remains opposed to the DEQ's proposal to use of single samples as the basis of water quality based effluent limits (WQBEL) and for total maximum daily load (TMDL) targets and remain deeply concerned about 303(d) impairment listings that are based on overly conservative interpretations of US EPA's 2012 recommended federal criteria that were developed primarily for coastal, marine beaches. AIC urges the DEQ to take the uncertainty associated with the result from a single sample into account during this rulemaking proceeding and recommends that additional samples ALWAYS be collected prior to the DEQ making a final recreation use support determination.

AIC appreciates the opportunity to comment on the revision of recreational use designations and criteria and looks forward to working with our state and other partners in these efforts. Should you have questions concerning our attached comments, please feel free to contact me.

Sincerely,



Jess Harrison, Executive Director

cc: Elaine Clegg, AIC Environment Committee Chair
Bob Culver, AIC Municipal Water Users Group Chair
Johanna Bell, AIC Policy Analyst
Tom Dupuis, AIC Environmental Consultant

Attachment

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.

² California has taken steps to develop and implement this and other approaches to better prioritize bacteria controls since 2008.

ftp://ftp.sccwrp.org/pub/download/SOURCE_ID_WORKSHOP/Session4.1_Barash_NSEBasis.pdf

http://www.cmanc.com/web/presentations/Winter2015Presentations/Ewelina_Mutkowska.pdf

<https://19january2017snapshot.epa.gov/sites/production/files/2015-04/documents/ca9-incorporate-provisions-bacteria.pdf>

https://www.waterboards.ca.gov/academy/courses/wqstandards/materials/mod24/24wqsacanatsource_rec1.pdf

http://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/862_StreamFIBs.pdf

Narrative Justification for Longer Duration Period for Recreational Water Quality Criteria

It is important for states to adopt magnitude, duration, and frequency components of criteria to protect designated uses. Therefore, in EPA's *Recreational Water Quality Criteria* document (820-F-12-058) EPA recommended a duration of 30 days for fecal indicator bacteria, which "allows for the detection of transient fluctuations in water quality in a timely manner." The Agency also recommended that, for any 30 day duration period, the geometric mean (GM) criterion magnitude should not be exceeded at all nor should the "statistical threshold value" (or "STV") be exceeded more than ten percent of the time.

The duration component of the criterion represents a critical exposure period during which the distribution of fecal indicator bacteria values should provide adequate protection for a population of recreational water users. During this critical exposure period, there should not be numerous events or lengthy periods of time where very high levels of fecal indicator bacteria occur, as this could lead to unacceptably high risk of illnesses. The Agency is concerned that a very long critical exposure period could allow an excessive number of high exposure events over a shorter term to be "averaged out" over the long-term. As expressed in the criteria document, EPA considers 30 days to be an optimal duration period to capture both short-term and long-term variability of exposure conditions to protect recreational uses. Based on factors described below, the Agency also considers a duration of up to 90 days acceptable.

EPA considers a duration of up to 90 days to represent an acceptable critical exposure period to protect recreational uses for the following reasons. The epidemiological studies used to develop the 2012 criteria recommendations were conducted over exposure periods of up to 90 days, thus making durations up to 90 days scientifically defensible. In addition, analysis of data from waters that experience short-term variability, or "transient fluctuations," from periodic high concentration releases exhibit very similar criteria attainment assessment outcomes using a 30 day or 90 day assessment period, when both the GM and STV criteria components are evaluated. As an example, EPA analyzed monitoring data from locations in New Jersey impacted by CSO discharges (an example of a "transient fluctuation"). EPA reviewed 17,538 records from 703 monitoring stations collected from 1996-2011. EPA combined the data into 2,890 monitoring station and year sets and assessed those combinations for attainment of the GM and STV over fixed 30 day periods and fixed 90 day periods. The STV criterion component appears to be a significant factor in preventing significant levels of FIB to be "averaged out" over a 90 day assessment period. Although using the GM alone resulted in an additional 106 station-years in non-attainment, when the STV was factored in, the number of station-years in non-attainment decreased to 62. Looking at station-year combinations (representing assessment in a "timely manner"), there is an overall 98% rate of agreement between results using 30 day and 90 day assessment periods, and most cases of disagreement are the result of a single measurement exceeding a 30-day GM but not exceeding a 30-day STV. The small percentage of outcomes where only a 30 day assessment period indicate non-attainment are predominantly a result of a single monthly measurement that lie between the GM and STV over the period of record, and may thus have a low probability of reflecting excessive risk of illness. On a station level (considering multiple years of data), 75% are in non-attainment using a

90-day assessment period and 76% are in non-attainment using a 30-day assessment period, representing a 99% rate of agreement.

It is this combination of field study duration and subsequent data analysis that makes up to 90 days an acceptable duration period. EPA does not have a basis to support adoption of a duration period that exceeds 90 days.

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.