Association of Idaho Cities
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October 5, 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 - Comments on September Bulletin Published Rules

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. 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.

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 (attached).

AIC urges DEQ and the Idaho Water Quality Board to revise the published rule language to be consistent with these comments. 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
Idaho Water Quality Board Members

Attachment

[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.

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 lengthly 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.