

May 14, 2021

*VIA EMAIL: paula.wilson@deq.idaho.gov*

Ms. Paula Wilson  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, ID 83706

Dear Ms. Wilson:

The Idaho Association of Commerce & Industry (IACI) is the leading trade association of Idaho businesses and represents hundreds of employer members of all sizes engaged in diverse commercial and industrial enterprises through the state. The arsenic water quality criteria values are used to set cleanup/remedial objectives, TMDLs, and requirements for wastewater discharge permits. Thus, these criteria will have direct impact on the IACI membership.

The Department, on April 22, 2021, requested comments on: (a) arithmetic versus harmonic mean and (b) implementation of the draft criteria. IACI offers the following comments that are in addition to the extensive comments provided in August 2020 (IACI 2020)<sup>1</sup> that reviewed the history of arsenic water quality criteria in Idaho, the regulatory framework for these standards and a thorough evaluation of data on arsenic in Idaho waters and fish

### **A. Arithmetic Versus Harmonic Mean**

During the April 22, 2021 arsenic water quality criteria Rulemaking meeting, the Department pointed out that under the safe drinking water program compliance with a drinking water standard is determined using the annual arithmetic mean concentration. Under the surface water quality program compliance with a human health-based surface water quality criterion is determined using a harmonic mean concentration. The Department requested comments on rectifying the inconsistency.

As described in Appendix E of IACI's August 21, 2020 comments (IACI 2020), when estimating the potential risk that may be posed by long-term exposure to a chemical in the environment (be that in soil, water, fish tissue, or other environmental media), the arithmetic mean of the concentration is used. When deriving permit limits based on a human health surface water criterion for a discharge to a receiving water, the harmonic mean annual river flow (not the arithmetic mean annual river flow) is used to represent the flow of the surface water receiving the discharge. The arithmetic mean of the concentration of the substance in the receiving water following dilution should be used in conjunction with the harmonic mean annual river flow to determine compliance with a human health-based surface water criterion.

### **B. Implementation**

The Department also requested comments on implementation of a fish tissue-based criterion for inorganic arsenic. [This is the "organism" only value for the recreation beneficial/designated use.] As noted by the Department and stakeholders during the April 22, 2021 rulemaking meeting, implementation of a fish tissue-based criterion poses several challenges, including

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<sup>1</sup> IACI 2020. Letter (with attachments) from Mr. Alex LaBeau to Ms. Paula Wilson. August 21, 2020.

among other factors, being more resource intensive than a water column-based criterion and creating issues with development of effluent limits for discharges. At this time IACI will continue to examine implementation options and will provide comments at a later time.

We appreciate the opportunity to submit these comments. Please let us know of any questions you have.

Sincerely,



Alex LaBeau  
President

cc: Alan Prouty, Chair  
IACI Environment Committee