



UNITED STATES ENVIRONMENTAL PROTECTION
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WATER
DIVISION

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AUG 2 2019

Re: The EPA Comments on Idaho's Negotiated Rulemaking - Revision of Idaho's Human Health Criteria for Arsenic, Docket 58-0102-1801

Dear Jason:

Thank you for the opportunity to provide comments to the Idaho Department of Environmental Quality (DEQ) regarding Idaho's arsenic survey design and draft monitoring approach for collection of arsenic in surface water and fish tissue. Based on information DEQ provided along with the discussion during the July 23, 2019 rulemaking meeting, the EPA offers the following comments and suggestions.

Use of composite fish samples will result in more representative estimates of fish tissue arsenic concentrations. Some consideration should be given to obtaining composite water samples that are representative of the locations where fish are collected. Fish tissue arsenic concentrations represent integrated exposure to arsenic in the environment over time therefore DEQ might consider water sample composites be prepared from multiple water grab samples in stream locations where fish reside. In addition, the home range of particular fish species might be considered in preparing composite water samples. To improve the utility of the water sampling without increasing the total number of samples for chemical analysis, we suggest collection of depth integrated samples from multiple locations on a transect across the stream or river, then compositing these samples into a single composite sample for chemical analysis.

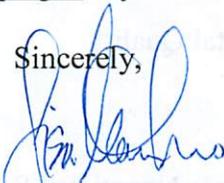
DEQ has been focusing on developing lower detection limits for inorganic arsenic in fish tissue. In this effort, it would be useful to determine if other researchers have been able to detect inorganic arsenic in freshwater fish and, if so, the range of concentrations that were found. This might inform the inorganic arsenic analytical method selected for DEQ's monitoring plan as well as the ultimate detection limit that the monitoring plan should aim for.

The EPA understands that other commenters have provided suggestions on how Idaho could develop a single BAF from the available data. Chemical water and tissue regression relationships can plausibly be used to develop water quality criteria. However, the current data for total and inorganic arsenic in fish tissue and water (i.e., Idaho 2008 data set) are not suitable because they do not support a statistically significant regression function and appear to contain outliers. The EPA is not providing input on those approaches at this time but would like you to know that we think it will be very

challenging to obtain an appropriate regression relationship that would support criterion development. Once more bioaccumulation and speciation data are collected, we will be happy to engage with DEQ on the most scientifically defensible way to evaluate the data to determine if it is plausible to obtain a regression relationship that can be used to develop an arsenic criterion.

We appreciate DEQ's ongoing work to update its arsenic human health criteria and the EPA looks forward to continuing to provide technical support to DEQ on this work. Please do not hesitate to contact me at (206) 553-1834 or at macchio.lisa@epa.gov if you have any questions.

Sincerely,



Lisa Macchio
Water Quality Standards Coordinator