Department of Environmental Quality
Water Quality Standards
IDAPA 58.01.02

Docket No. 58-0102-1801

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

This rulemaking was initiated to update Idaho's human health criteria for arsenic.

On April 4, 2018, the notice of negotiated rulemaking was published in the Idaho Administrative Bulletin and posted on DEQ's website. Eight meetings were held between April 2018 and November 2020. On December 9, 2020, a preliminary draft rule was posted on DEQ's website. Five additional meetings were held between December 2020 and November 2021 for a total of 13 negotiated rulemaking meetings. Stakeholders and members of the public participated by receiving email notifications, attending the meetings, reviewing DEQ's presentations and supporting information, and submitting comments. Key information was posted on DEQ's website and distributed to persons who participated in the negotiated rulemaking.

All comments received during the negotiated rulemaking process were considered by DEQ when making decisions regarding the development of the rule. Certain issues remain unresolved and are summarized in the attached response to comments document. At the conclusion of the negotiated rulemaking process, DEQ submitted the draft rule to the Division of Financial Management for review. DEQ formatted the draft for publication as a proposed rule and is now seeking public comment. The negotiated rulemaking record, which includes the negotiated rule drafts, documents distributed during the negotiated rulemaking process, and the negotiated rulemaking summary, is available at https://www.deq.idaho.gov/public-information/laws-guidance-and-orders/rulemaking/water-quality-docket-no-58-0102-1801/

DEQ's Response to Comments/Negotiated Rulemaking Summary
Docket No. 58-0102-1801

1. Idaho Conservation League (ICL)
2. Idaho Association of Commerce & Industry (IACI)
3. Association of Idaho Cities (AIC)
4. U.S. EPA Region 10

Cmt #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
1.	210.03.e	**1.**	Requests that 210.03.e be revised to include language requiring paired fish tissue and water; fish and water collected at the same date, time, and location; make clear that water should be collected whenever fish tissue is collected.	DEQ has revised 210.03.e to require that: 1) a fish sample will consist of the same species, collected from the same water body, and within the same calendar year (210.03.e.ii); 2) sample must include gamefish species, whenever practical (210.03.e.ii & v.1); and that 3) water column samples used for translation will be representative of the annual average concentration of inorganic arsenic (210.03.e.v.3). This approach will ensure that the fish tissue and water column data used for translation will be a scientifically defensible estimation of bioaccumulation within the water body and will provide a more accurate estimate than collecting a single water sample every time fish are collected.

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2.	210.01.b	**2.**	Regression analysis is a better method for calculating BAFs and deriving the water column element than the geometric mean approach used to derive the proposed rule. Support fish tissue element superseding water column element.	Using a trophic-level weighted BAF based on geometric means is consistent with Idaho Water Quality Standards and federal guidance. While the regression approach identified by IACI may, in some instances, provide a more direct estimate of bioaccumulation, in the absence of a strong, significant, predictable relationship between concentrations of inorganic arsenic in the water column and concentrations of inorganic arsenic in fish tissue, it is necessary to use a more conservative approach for deriving water column values that would be protective of the designated uses. Because the fish tissue element supersedes the water column element, it is possible to use the direct measure of inorganic arsenic in fish tissue rather than rely on the conservative estimates of bioaccumulation when applying the arsenic criteria.
3.	210.01.b, footnote I	**2.**	Footnote 'I' should be modified to state that if the water column concentration is ≤4.3 µg/L, the fish only criterion is met.	The fish tissue element is the most direct measure of human exposure to inorganic arsenic from consumption of fish; the water column element is derived as a water column concentration that would protect fish tissue from exceeding the criterion. In recognition of this fact, under the proposed rule language, the fish tissue criterion element supersedes the water column element. Therefore, if sufficient fish tissue data are available, and the concentration of inorganic arsenic in fish tissue exceeds the criterion of 8.00 µg/kg, the fish only criterion is not met, regardless of water column concentrations.
4.	General	**3.**	There may be cases where a tributary has water column >4.3 µg/L but the fish downstream comply with fish tissue criterion; effluent limits might not be necessary in this case	The Clean Water Act and its implementing regulations require revised water quality criteria to protect designated uses, taking into consideration various uses such as recreation and public water supplies. In Idaho, recreation uses are protected through application of, among other criteria, the fish-only human health criteria. These criteria apply to all waters of the state, either through specific use designations (58.01.02.110-160) or through presumed use protection (58.01.02.101.01.a), unless recreation uses have been specifically removed. Recreational uses are to be protected regardless of the presence of fish. Under the proposed arsenic rule, the numeric water column criterion element applies in the absence of suitable fish populations or when fish tissue data are not available. Because arsenic is a toxic priority pollutant, discharges of arsenic are regulated under the federal NPDES program and state IPDES program. Rules applicable to these programs are used to determine if effluent limits are necessary to meet applicable water quality criteria.

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5.		**4.**	Recommend DEQ confirms the use of arsenic conversion factor to convert from dissolved to total arsenic for permitting purposes.	Conversion of dissolved criteria to total for permitting purposes is a common and established procedure and conversion factors are detailed in subsection 210.02. DEQ does not believe it is necessary to provide rule language specific to arsenic for this purpose.
6.	210.01.b, footnote I	**4.**	Would be reasonable for tissue to supersede water column under steady state conditions; EPA recommends water column value has primacy when arsenic inputs are new or increasing.	Proposed rule has been revised to include requirement that there be no new or increasing point source discharges of arsenic in order for the fish tissue element to supersede water column element.
7.	210.03.e.ii	**4.**	Recommend removing or revising minimum fish and size requirements for application of fish tissue element	DEQ appreciates that it might not always be practical or possible to collect a minimum of 5 fish of a single species, or to meet the size requirements in the proposed rule. However, we believe this approach is necessary to ensure that results are representative of the exposure that anglers and fish consumers would experience from consuming fish from the waterbody. Therefore, we believe it is prudent to keep these requirements in rule as proposed and apply the water column element when sufficient fish tissue data are not available.
8.	210.03.e	**4.**	The rule language does not provide sufficient detail on how the fish tissue element translation will be applied; recommend details be provided to outline data collection methods (number and age of samples; where, when, and how samples will be collected; how samples will be stored); target fish species; methods for compositing; analytical methods for fish tissue and water column; how multiple data will be reconciled.	210.03.e has been revised to include additional details for translation of fish tissue element to water column value, including provisions for how data can be combined across time and within a waterbody, which species should be targeted (210.03.e.i & ii), how the water column value will be calculated (iv); and how BAFs will be derived (v). Implementation will be further governed by the *Rules Regulating the Idaho Pollutant Discharge Elimination System* (58.01.25), including Monitoring and Reporting requirements in subsection 304. Further details will be provided in implementation guidance and in specific Quality Assurance Project Plans.

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9.	210.03.e	**4.**	Consider implementing fish tissue and associated water column criteria and pursue site specific criteria through adoption and approval at a later date.	Idaho has collected extensive data on accumulation of inorganic arsenic in fish tissue. Idaho's data shows that there is no discernible, predictive relationship between concentrations of inorganic arsenic in the water column and concentrations in fish tissue. This conclusion is supported by the limited information found in scientific literature. As has been discussed thoroughly throughout the rulemaking process, the relationship between concentration of inorganic arsenic in water and in fish tissue is weak or nonexistent. Therefore, we believe it is most defensible and protective to measure the concentration of arsenic in fish tissue directly, rather than in the water column. However, tissue sampling and analysis is difficult and costly; therefore, it is prudent to provide a conservative water column criterion that is applicable in the absence of fish tissue data. DEQ believes that the approach outlined in the proposed rule - a fish tissue as well as water column element, with the fish tissue element superseding the water column element only when sufficient data are available – provides a scientifically defensible and protective approach to ensuring that recreation uses are protected. The translation approach outlined in this proposed rule is not a unique or novel idea – water quality criteria are commonly translated for purposes of application in CWA programs. For example, DEQ's EPA-approved criteria for methylmercury for the protection of human health criterion for mercury is a fish-tissue only criterion while several site-specific criteria for selenium require translation of fish tissue concentrations to water column targets. Idaho and many states have numerous narrative criteria that require translation to numeric values for other CWA programs where water column values are necessary. These translations, like this proposed approach, rely on site specific factors to derive a protective and scientifically defensible water column value for specific CWA applications (such as permits or TMDLs). Furthermore, applications of this translation for CWA purposes are subject to public review and comment as well as EPA oversite.