

The following is provided for your consideration prior to the February 28th HJ37 Special Committee meeting regarding the site-specific water quality standard (WQS) for selenium in Lake Koocanusa. To reiterate, this WQS is 0.8 micrograms per liter, while the federal guideline is 1.5 and the statewide standard (discussed below) is 5.0. There are four characteristics of this WQS that warrant the committee's special scrutiny.

1. First, the standard is a site-specific standard, of which there are few in Montana. Most water quality standards in Montana apply statewide to all waters. For selenium, all waters in Montana, except Lake Koocanusa and the Kootenai River, remain governed by a water quality standard set at 5 micrograms per liter, more than five times the standard set for Lake Koocanusa. Ironically, this higher state-wide standard applies to waters where selenium exceedances have been documented in fish in the Missouri River (Exhibit A, attached, p. 16) and in invertebrates, fish and birds at Freezeout Lake and Priest Butte Lake (Exhibit B, attached, p. 14; Exhibit C, attached, p. 12 (noting that "a fishery has never been able to sustain itself" due to "increased selenium")) as well as in Wolf Creek where species of concern red-belly dace are subjected to selenium at levels up to 37 micrograms per liter (Exhibit D, attached, pp. 12, 15) and important spawning habitat for species of concern, including westslope cutthroat trout in Peet Creek that is subject to selenium levels at 10 micrograms per liter (Exhibit E, attached, pp. 23, 24, 25).

Additionally, among selenium standards nationwide (site-specific and general), the new standard set for Lake Koocanusa is the most stringent in America.¹ Of the 14 other site-specific selenium

¹ Based on search of EPA's records of WQS for the parameter selenium using EPA search tool at <https://www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa#tb3>.

standards nationwide, the lowest is 2.0 micrograms per liter – higher than the EPA guideline and higher than Montana’s standard for Lake Koocanusa set at 0.8 micrograms per liter.² Montana’s site-specific standard for Lake Koocanusa is a dramatic departure from the rest of the nation and with selenium standards statewide as well.

2. Second, the water standard for Lake Koocanusa is set at 0.8 micrograms per liter, which is more stringent than the federal guideline for lakes, which is 1.5 micrograms per liter. In general, Montana law does not allow water quality standards to be set more stringent than federal standards, but for exceptional situations and only when specific written findings have been made. See § 75-5-203, MCA “State Regulations no more stringent than federal regulations or guidelines.” In 2020, DEQ argued and the Bullock Board of Environmental Review agreed that the findings were not required because the standard was site-specific, but nothing in Montana law exempts site-specific standards from compliance with the stringency requirements of § 75-5-203, MCA. The Board of Environmental Review, which has authority to review stringency claims, has two petitions pending before it that are fully briefed and may be decided at the Board’s meeting on Friday, February 25th.
3. Third, the standard includes fish tissue standards and is the first of its kind in Montana. Unlike other water quality standards, where water quality is measured by collecting and analyzing water samples, the new selenium standard depends on collecting and analyzing fish tissue. This is a new process for Montana to use in assessing compliance with water quality standards and it is not known how, when, where, or from what species the samples will

² Based on search of EPA’s records of WQS for the parameter selenium and narrowed for “site specific” application using EPA search tool at <https://www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa#tb3>.

be taken in order to determine compliance. Further, EPA, USGS, FWP, and the Board all noted challenges with collecting fish tissue samples, particularly egg/ovary samples. Much of the data is unreliable if it is not collected according to strict timing considerations that require samples from gravid or ripe ovaries. In fact, DEQ's misuse of fish tissue data to arrive at this standard demonstrates good reason to scrutinize the data and the standard. DEQ has indicated that alarming trends in fish tissue data exist, prompting a need for the standard, but a proper review of the data reveals no alarming trend and highlights the uncertain foundation of many alarmist claims. Exhibit F, attached (fish tissue data plots).

4. Finally, the new selenium standards were promulgated very quickly. For perspective, when EPA released its 2016 selenium guideline (which, again, is 1.5), it did so only after an extensive, multi-year peer-review process of the technical documents. Additionally, when DEQ set a site-specific water quality standard for arsenic in the Yellowstone River, it released its technical support documents then spent two years reviewing and collaborating with the public and stakeholders before it initiated rulemaking. However, in the case of the new selenium standards, the technical support documents were released at the same time that the rulemaking was initiated. The public had less than three months to review the technical support documents and little chance to dialogue with DEQ about them.

Because the new selenium standard for Lake Koocanusa is unique in that all four of these characteristics apply, it deserves thoughtful, careful review. We believe that review of the lake's water quality and fish tissue data will reveal no escalating issues with selenium and that careful expert review of the modeling done by DEQ to devise the standard will reveal that the model was used inaccurately and in a manner that overpredicts selenium concentrations in fish. This is evident by the fact that DEQ's use of the model resulted in a standard set at 0.8 micrograms

per liter, above which fish tissue whole body levels would be expected to exceed 8.5 mg/kg, yet not a single sample as been observed above that level despite the fact that Lake Koocanusa's water quality has been at or over 1 microgram per liter selenium for at least a decade.

Thank you for your time and attention and please let me know if you have questions or would like to discuss any of this information further.

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