



December 31, 2019

TO: Members of the Water Pollution Control Advisory Council & the public

FROM: Michael Suplee, Ph.D., Water Quality Standards & Modeling Section

MEETING DATE: January 10, 2020

SUBJECT: Arsenic Standards for Parts of the Yellowstone River

ACTION REQUIRED BY COUNCIL:

ACTION ITEM, a recommendation to take the matter to BER for initiation of rulemaking.

BACKGROUND:

At present, there is single human-health based arsenic standard of 10 µg/L across Montana (Department Circular DEQ-7). It has been recognized for some time that arsenic concentrations are elevated along the upper and middle Yellowstone River, and that that is most likely due to natural causes—from sources in Yellowstone National Park. State laws allow for situations where the background concentration of a pollutant is naturally elevated (75-5-222 and 75-5-306, MCA). Therefore, in 2015, DEQ began a project to determine how much of the river's arsenic is nonanthropogenic (natural), and to identify updated arsenic standards for the river, if appropriate. The project included field data collection and inhouse computer modeling. Although staff departures delayed completion of the work, it is now finished and DEQ has identified a series of river segments and seasons for which site-specific arsenic standards can be established at concentrations at or above the 10 µg/L human-health based standard. The basis of the standards will be explained to WPCAC, including their magnitude, frequency, and duration, which beneficial uses are involved, how nondeg will be addressed, how permits will be written, etc. If these new standards are adopted by the BER, they will provide more accurate (and less stringent) permit limits for dischargers along the Yellowstone River who have arsenic in their effluent.

RECOMMENDATION:

The Department recommends the Council vote to allow the standards to proceed to the BER for their consideration.

Please contact us with any questions (*Michael Suplee, Ph.D., DEQ – Metcalf Building P.O. Box 200901, Helena, MT 59620; 406.444.0831; msuplee@mt.gov*)

Attachments: (*Draft rule notice, two technical support documents.*) To access the technical support documents, visit <http://deq.mt.gov/water/Surfacewater/standards>, Click on **Supporting Technical Documents** tab, **Natural and Nonanthropogenic Standards** drop-down, and the two document there pertain to the development of the proposed arsenic standards for the Yellowstone River.