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Jody Frymire

Hello, please see the attached document for my written comment. Thank you for the opportunity to submit a comment. Jody Frymire

Mr. Rich Cripe
Wyoming Department of Environmental Quality
200 W 17th St STE 200
Cheyenne WY, 82002

Document: Chapter 12 Design and Construction Standards (for Public Water Systems)

May 5, 2020

Dear Mr. Rich Cripe,

IDEXX appreciates the opportunity from the Wyoming Department of Environmental Quality (Department) to submit our input on Chapter 12 Design and Construction Standards (for Public Water Systems). At this time, IDEXX would like to request the Department to consider the following comment.

Suggest revising the bacteria indicator from fecal coliform to *Escherichia coli (E. coli),* as indicated within section 7 General Design Consideration, subsection c.i.C.

Rational: *E. coli* are a better indicator for fecal contamination versus fecal coliform, thus more protective to human health.

Fecal coliform bacteria are commonly identified as being thermotolerant bacteria (able to grow at 44.5 ^{o}C) [1]. Thermotolerant bacteria consists of *E. coli*, Klebsiella, Enterobacter, and Citrobacter species [1,2]. When testing for fecal coliforms, the population of the bacteria present can affect the fecal coliform results; for example, Klebsiella, Enterobacter, and Citrobacter species are false-positive indicators of fecal contamination as they are from nonfecal origin [2]. It has been found, up to 15% of Klebsiella (nonfecal origin) are thermotolerant and up to 10% of *E. coli* are not thermotolerant, thus potentially causing an error rate of 25% when testing for fecal coliforms [3]. *E. coli* are the only bacteria, of the coliform bacteria group, that come from the intestinal tract, have found to be more specific to the detection of fecal contamination and are the definitive indicator of fecal contamination in the U.S. Drinking water regulations [3,4] and are included as the EPA's recommended bacteria for recreational surface waters [5].

While we understand that changing a bacteria requirement, from fecal coliform to *E. coli,* could be beyond the scope of the current proposed changes, we hope that the Department will consider revising this bacteria parameter to better protect public health. IDEXX appreciates the opportunity to provide this comment and looks forward to the next steps in the rule changing process.

Respectfully submitted,

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