

Jody Frymire

Thank you for the opportunity to submit the attached comment.

Ms. Becca Conklin  
Department of Ecology  
P. O. Box 47600  
Olympia, WA 98504-7600

**Document: Rulemaking – Chapter 173-201A WAC – Recreational Use Criteria Formal Comment Period**

September 10, 2018

Dear Ms. Becca Conklin,

IDEXX commends the Department of Ecology (Ecology) on the proposed amendments to WAC 173-201A. At this time, IDEXX would like to request Ecology consider the following supportive and editorial comments.

IDEXX supports the proposed changes to the bacteria criteria for fresh and marine waters, changing from fecal coliforms to either *E. coli* or enterococci; as *E. coli* and enterococci are more protective indicators of human fecal contamination versus fecal coliform [1,2,3,4,5].

Additionally, IDEXX suggests editing the current definition for "*E. coli*."

Current language:

"*E. coli*" or "*Escherichia coli*" is an aerobic and facultative anaerobic gram negative nonspore forming rod shaped bacterium that can grow at 44.5 degrees Celsius that is ortho-nitrophenyl-B-D-galactopyranoside (ONPG) positive and Methylumbelliferyl glucuronide (MUG) positive.

Suggested language:

"*E. coli*" or "*Escherichia coli*" means an aerobic and facultative anaerobic gram negative, nonspore forming, rod shaped bacterium that is ortho-nitrophenyl-B-D-galactopyranoside (ONPG) positive and Methylumbelliferyl glucuronide (MUG) positive.

Rational for edit:

While thermotolerant *E. coli* can grow at 44.5 °C, typical *E. coli* grow at 35 °C. By listing a temperature in the definition, it suggests only analytical methods that use the defined temperature would be valid. The US EPA lists approved *E. coli* test methods at 40 CFR Part 136.3; some of the methods listed, like EPA Method 1604, detect *E. coli* at 35 °C [6,7]. To only reference *E. coli* that can grow in 44.5 °C is not inclusive to the other EPA approved methods.

IDEXX appreciates the opportunity to provide this supportive comment as well as the editorial comment and hopes Ecology will consider the suggested edit as an additional way to strengthen the water quality standards for surface waters. We look forward to the next steps in the Triennial Review process and the finalization of this Rule.

Respectfully submitted,



Jody Frymire | Regulatory Affairs Associate, Water | One IDEXX Drive | Westbrook, Maine 04092 USA  
idexx.com/water | [jody-frymire@idexx.com](mailto:jody-frymire@idexx.com) | Tel: +1 207 556 4840

#### References

1. Warden, Paul; DeSarno, Monique; Volk, Sarah; and Eldred, Bradley. Analytical Services. Evaluation of Colilert-18 for Detection and Enumeration of Fecal Coliform Bacteria in Wastewater Using the U.S. Environmental Protection Agency Alternative Test Procedure Protocol. *Microbiological Methods, Journal of AOAC International*. Volume 94, Number 5: 2011
2. Doyle, Michael. Erickson, Mary. Closing the Door on the Fecal Coliform Assay. *Microbe*, Volume 1, Number 4, page 162: 2006
3. Allen, Martin; Edberg, Stephen; Clancy, Jennifer; Hruday, Steve. Drinking water microbial myths. Critical Reviews in Microbiology; ISSN: 1040-841X (print), 1549-7828 (electronic): 2013:  
<http://informahealthcare.com/mby>
4. Cummings, Dennis. The Fecal Coliform Test Method Compared to Specific Tests for *Escherichia coli*. IDEXX:  
<https://www.idexx.com/resource-library/water/water-reg-article9B.pdf>
5. US Environmental Protection Agency. Recreational Water Quality Criteria. Office of Water 820-F-12-058.  
<https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf>
6. US Environmental Protection Agency. 40 CFR Part 136. Guidelines Establishing Test Procedures for the Analysis of Pollutants. 1977
7. US Environmental Protection Agency. Method 1604: Total Coliforms and *Escherichia coli* in Water by Membrane Filtration Using a Simultaneous Detection Technique (MI Medium) (September 2002). EPA-821-R-02-024. [https://www.epa.gov/sites/production/files/2015-08/documents/method\\_1604\\_2002.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/method_1604_2002.pdf)