

From: [Mebane, Christopher A](#)
To: [Paula Wilson](#)
Subject: Water Quality: Docket No. 58-0102-2001 Negotiated Rulemaking
Date: Monday, May 18, 2020 8:25:16 PM

Dear Paula Wilson,

Mary Anne Nelson requested that I write in with discussion topics following the May 7th meeting. My questions regarded monitoring frequency and notification expectations of fecal indicators under IDAPA section 251.02. Both the rule language for E. coli and Enterococci include a statistical threshold value (STV) that is not to be exceeded in more than 10% of samples over a 30 period. This raised questions for our staff conducting water quality monitoring for bacteria. We often have a current project with scheduled sampling frequency of once or twice per month, meaning that only 2 samples at most would be collected in a 30-day period. While mathematically, with 2 samples one can certainly calculate if more than 10% of the samples exceed a STV, such calculations may not engender much confidence in the results, whatever they may be. Yet sampling trips, sample handling, data analysis and data curation costs add up, and however desirable, few ambient monitoring projects seem likely to marshal the resources to routinely collect bacteria samples at the density implied by a 10% exceedence frequency in a 30 day period test. In contrast, given the 2X per month sampling schedule, monitoring from May through September would generate 10 samples over the “summer swimming” time period when primary contact recreation would be most common. The DEQ may wish to consider whether datasets collected over longer duration periods such as this project specific 5-month period might provide useful insights to the DEQ over risks to primary contact recreation.

The old rule language included provisions for trigger values, wherein a bacteria sample exceeded a STV would trigger a responsibility for further monitoring by the Department. While not explicit to the present rule language, the concept of triggering accelerated monitoring has some merit, especially for popular recreation areas. If a organization such as ours detects an exceedence of a STV, does DEQ wish to be notified? If so, that expectation would be helpful to communicate, such as via web materials. Depending on scheduling, travel distance, availability, and such, we might be able to re-sample upon request. But if not asked, we are unlikely to re-sample, and if we don’t tell DEQ of a STV exceedence, DEQ is unlikely to ask.

Best wishes with your program,

Christopher Mebane

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