Guidance Document Issues

Example 1:

On July 26, 2016 MPCA had a Special Meeting on the River Nutrient Assessments and told cities that the RES clearly states that BOD5 and DO flux will not be used for impairment determinations without a demonstrable relationship to problematic algal growth (chl-a).

Here is the language from August 2016 version of the Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: CWA §305(b) Report and CWA § 303(d) List ("Guidance Manual"):

> A stream is considered to exceed the river eutrophication standard if:
> 1. the total phosphorus concentration exceeds the standard
> 2. AND
>
> a. chlorophyll-*a* exceeds the standard
> OR
> b. BOD5 OR DO Flux exceeds the standard **AND there is evidence that the response is tied to sestonic algae (chl-*a* data less than data minimums for assessment, field notes, photos, etc.).**

MESERB then made comments supporting MPCA's clarification, but stated that MPCA's approach would be subject to legal challenge or change at the Agency's whim and that the better approach would be to simply remove BODs and DO flux as response variables. MPCA responded to our comments as follows:

> **While the technical support document speaks to the intended linkage of biochemical oxygen demand and diel DO flux to sestonic algae, the promulgated rule does not**. MPCA has revised its 2016 Guidance Manual to better reflect the promulgated and approved standards. The standards, as promulgated in rule and approved by EPA, state that biochemical oxygen demand and diel DO flux are independent response variables.

December 2016 guidance document language:

> A stream is considered to exceed the river eutrophication standard if:
> 1. the total phosphorus concentration exceeds the standard
> 2. **AND chlorophyll-*a*, BOD5, DO Flux, OR pH exceeds the standard**

Example 2:

Unadopted Rule: RES Implementation

The rule says the following (Minnesota Rule 7053.0205, Subp. 7.C):

> Discharges of total phosphorus in sewage, industrial waste, or other wastes must be controlled so that the eutrophication water quality standard **is maintained for the long-term summer concentration of total phosphorus, when averaged over all flows**, except where a specific flow is identified in chapter 7050. (Emphasis added.)

The SONAR says the following:

- "[RES] are based on a long-term summer average. All summer days and thus all summer flows are equally weighted . . . ." (SONAR, II, p. 91).

- "Evaluating a single summer river flow . . . to establish effluent limits is not consistent with the definition of "average."" (SONAR, II, p. 91).

- "Seasonal averaging period . . . applies to all summer days over multiple years so there is not a critical flow." (SONAR, EU-45).

- "All available flow data will be considered when establishing effluent limits for [RES]."

MPCA Procedures for implementing river eutrophication standards in NPDES wastewater permits in Minnesota (Nov. 2015) requires the following:

- Requires restrictions to be calculated use a single "critical" low river flow and high WWTF flow to calculate restrictions
- Return frequency for flows selected are more than 10 years—anything but average
- Extremely rare for such conditions to exist simultaneously

How is use of a single critical low flow with a return frequency of 10-14 years considered average in light of the above rule language?