

Dear Gwendolyn,

I'm writing on behalf of the Community Science Institute, a nonprofit organization based in Ithaca, NY, whose mission is to inspire and empower communities to safeguard water resources by cultivating scientific literacy through volunteer water quality monitoring, certified laboratory analyses, and education. Our volunteer groups have been collecting stream and lake samples and testing them through our ELAP accredited lab (Lab ID# 11790) for over twenty years. Results can be viewed by the public, via our [database](#). As a long-standing monitor of total phosphorus, chlorophyll a, and benthic macroinvertebrates, CSI welcomes the opportunity to contribute to this public commentary period for NYSDEC's proposed changes to the TOGS 1.1.1 Nutrient Criteria. Our organization had the following questions and comments:

- 1) Could you please clarify the methods used to derive the biological response variables? The ponded waters values seem to use a taxa specific method that considers specific responses to phosphorus enrichment, following Threshold Indicator Taxa Analysis (TITAN). However, this does not seem to be the case for flowing waters. Could you further describe how the procedures in *Technical support document: Development of numeric nutrient criteria for Florida lakes, spring vents and streams, in: Florida Department of Environmental Protection* (2012) were used to account for uncertainty between TP and the BAP score?
- 2) For clarity, the wording for how the BAP score relates to the total phosphorus values could be more consistent. The ["NYSDEC Releases DRAFT Guidance Values to Advance New York State's Regulation of Phosphorus"](#) page states "BAP shall not be less than or equal to 5"; however, the [Phosphorus Aquatic Life Fact Sheet for Flowing Waters](#) states " ≤ 5 Biological Assessment Profile Score (BAP) for All NYS Nutrient Ecoregions." These seem to be conflicting statements, but it is understood that if a waterbody is determined to be impaired via BMI (BAP<5), this is considered alongside the TP values.