

# **Nutrient Science Advisory Committee**

## **Tentative Conclusions and Next Steps**

**December 16, 2016**

**1-3 pm Central Time / 2-4 pm Eastern Time**

### **TENTATIVE CONCLUSIONS**

1. Differences in Annual Geometric Means (AGMs) computed using  $\frac{1}{2}$  the detection limit for censored observations versus using maximum likelihood were found to be relatively small for total nitrogen (TN), total phosphorus (TP), and corrected chlorophyll-a (CHLAC). In some cases, AGMs are based on only a few measurements, and no alternative to substituting with  $\frac{1}{2}$  the detection limit provides a substantially more defensible approach in these cases. Furthermore, given the relatively small proportion of censored observations, the choice of method is unlikely to have much impact on the analysis. Thus, NSAC has chosen to proceed using AGMs derived by substituting  $\frac{1}{2}$  detection limits for censored data.
2. A statistically significant difference was found in AGMs computed using data throughout the year versus AGMs computed from growing season data only for TN, TP, and CHLAC. NSAC has chosen to constrain water quality data to that collected during the growing season only to improve the comparability of data from Illinois EPA's Intensive Basin Survey and Ambient Water Quality Monitoring Network. In a separate post-hoc analysis, NSAC will assess annual statistics to confirm consistency with analyses performed using seasonal data.
3. There are still delays in receiving USGS and National Rivers and Streams Assessment (NRSA) data outside of Illinois. As such, only IL EPA data have been evaluated thus far.

### **NEXT STEPS**

1. Amy Walkenbach will ask Roy Smogor, IEPA to provide the season dates that intensive basins are sampled.
2. NSAC will circle back and think about whether there is a need to add classification to watershed size excluding yearly data from modeled reference expectation.
3. NSAC will make a decision on USGS and NRSA data when those data become available.
4. Paul Terrio will obtain the Midwest Stream Quality Assessment (MSQA) report and distribute to NSAC.
5. Todd Royer will draft a few paragraphs for the NLRS biennial report to USEPA and distribute to committee member by Dec 23.
6. At the next meeting, NSAC will address the conceptual model and site specific data and will discuss updates to be given to the Policy Working Group February 7 meeting.

### **Future meetings**

Monday, January 9 Conference Call 1:00pm - 3:00pm CT

Monday, February 13 Face to Face @ Illini Union