Summary of Comments on the Draft 2016 305(b)/303(d) List

1) Comment: The draft 2016 305(b)/303(d) list has the stream reach GAR031501040601 - Etowah River (Sharp Mountain Creek to Lake Allatoona) listed for fecal coliform based on one sampling point at the Hwy 5 spur in Canton. This 20 mile section of the River includes 7 named creeks entering the Etowah River (6 of these creeks are not listed for fecal coliform and the only one that is listed for fecal coliform enters the Etowah River below your sampling point). If I am not mistaken, the current policy is that listed segments are chosen based on a sampling point and up and down to named streams. There is no reason to have a 20 mile section listed when the data does not support that decision. The more realistic listing should be from the Hwy 5 Spur to Lake Allatoona.

Response: It is true that when a newly assessed reach is created, it generally starts at the nearest named stream upstream of the sampling point and continues to the nearest named stream downstream of the sampling point. However, it is important to understand that the 305(b)/303(d) list of waters builds from one listing cycle to the next. Old assessed reaches are maintained as they are unless data are available to support changing them. The reach in question, Etowah River (Sharp Mountain Creek to Lake Allatoona), was created in 1992 before we began using the above described policy to create reaches. EPD would consider splitting this section of the Etowah River into smaller sections, but we would need justification to do so. The best justification for splitting the reach would be for additional data to be collected along the Etowah River itself. Lack of fecal coliform listings in tributaries feeding into the Etowah River provides weaker evidence that the Etowah River itself is not impaired, since there could be fecal coliform inputs directly into the River from nonpoint sources or from direct discharges (permitted or unpermitted). In the case of this particular section of the Etowah River, while a number of streams enter the Etowah River in the 20 mile reach, only four of them have been assessed for 305(b)/303(d) purposes. Only one of the fours streams (Sharp Mountain Creek) has fecal coliform data available for assessment. The other three creeks were assessed based on Fish IBI data. There is currently not enough information to justify splitting the existing reach into smaller segments.

2) Comment: The draft 2016 305(b)/303(d) list has the stream reach GAR031501040701- Shoal Creek (Hwy 140 to Lake Allatoona) listed for fecal coliform 17 miles based on 2 sampling points (Little Refuge Road and Hwy 108). This 17 mile section of creek has a number of named tributaries entering it that are not listed for fecal coliform. If I am not mistaken, the current policy is that listed segments are chosen based on a sampling point and up and down to named streams. Based on this information it seems there should be 2 listed sections of Shoal Creek based on sections from named tributary to named tributary. Listed segments should not continue to Lake Allatoona passing 2 named creeks that are not listed for fecal coliform. Since no actual data was available (for viewing by the public) or sources for the data used in the listing decision

it would be prudent to follow policy in listing segments for fecal coliform in that sections from named stream to named stream should be included. Historical listing decisions were based on flawed or limited data and could have included errors - so listing based on historical listed segments should not be used.

Response: It is true that when a newly assessed reach is created, it generally starts at the nearest named stream upstream of the sampling point and continues to the nearest named stream downstream of the sampling point. However, it is important to understand that the 305(b)/303(d) list of waters builds from one listing cycle to the next. Old assessed reaches are maintained as they are unless data are available to support changing them. The reach in question, Shoal Creek (Hwy 140 to Lake Allatoona), was created in 1994 before we began using the above described policy to create reaches. EPD would consider splitting the reach into smaller sections, but we would need justification to do so. For instance if the data from the existing stations on Little Refuge Road and Hwy 108 indicated different assessment results (e.g. if one station indicated the fecal coliform criteria were being met while the data from the second station indicated the fecal coliform criteria were not being met), then this section of Shoal Creek could be split between the two stations. Currently both stations indicate that the fecal coliform criteria are being exceeded. EPD could consider splitting this section of Shoal Creek if additional data were taken along the creek that indicates the fecal coliform criteria are being met. Lack of fecal coliform listings in tributaries feeding into Shoal Creek provides weaker evidence since there could be fecal coliform inputs from nonpoint source or unpermitted discharges directly into the Creek. In the case of this particular section of Shoal Creek, while a number of streams enter the Creek in the 17 mile reach, only two of them have been assessed and for both of them only Fish IBI data available for assessment (there is no fecal coliform data). There is currently not enough information to justify splitting the existing reach into smaller segments.

3) Comment: EPD received a request to split the reach GAR031300020217 - Sweetwater Creek (Unnamed Tributary approximately 0.25 miles u/s of I-20 to the Chattahoochee River) based on fecal coliform data collected by Douglas County in Sweetwater Creek State Park and at Riverside Parkway that indicated the fecal coliform criteria were being met.

Response:

Douglas County had collected fecal coliform data under an approved Sampling and Quality Assurance Plan (SQAP) in Sweetwater Creek State Park and at Riverside Parkway that indicated the fecal coliform criteria were being met. The fecal coliform data collected by EPD at I-20 indicated the fecal coliform criteria were being exceeded. EPD determined that there was sufficient evidence to split the reach Sweetwater Creek (Unnamed Tributary approximately 0.25 miles u/s of I-20 to the Chattahoochee River) at an unnamed tributary 1 mile downstream of Blairs Bridge Road. This tributary was chosen as the best place to split the reach as there is a significant land use change from an urban land use to a mostly forested land use.

4) Comment: Draft and final reports from Dr. Pete Lasier (USGS) and Dr. Robert Bringolf (UGA) were submitted to EPD for consideration. The reports summarized studies they recently completed for the US Fish and Wildlife Service in the Conasauga River basin in Georgia and Tennessee. Drs. Lasier and Bringolf analyzed surface waters and sediments for agricultural chemicals, including glyphosate, metals, nutrients, and steroid hormones, and documented three threats to aquatic species in the basin.

Response:

EPD reviewed the reports from Dr. Pete Lasier and Dr. Robert Bringolf. We were unable to use the data provided for 305(b)/303(d) purposes for a couple of reasons. First, the Rules and Regulations for Water Quality Control (Chapter 391-3-6-.03(13) require that in order to be used for 305(b)/303(d) listing purposed, data collected by third parties has to be collected under an approved SQAP. Dr. Lasier submitted a draft SQAP for collection of nitrates on the Conasuaga. EPD commented on the draft SQAP, but it was not resubmitted for approval. SQAPs were not submitted for the other constituents being studied. Secondly, even had approved SQAPs been in place, Georgia does not have water quality criteria in place for nutrients in streams, or for glycophospahte or steroid hormones. Therefore, the data collected in the report cannot be used directly for 305(b)/303(d) listing purposes. Dr. Lasier was informed of this when he submitted his draft SQAP for nitrate collection which may be why he chose not to resubmit it for approval. While EPD cannot use the reports directly in the 305(b)/303(d) process, we may be able to use them for other purposes.

5) Comment: It is understood that the change from "supporting" to the "assessment pending" designation for the Lake reach GAR031300010821 – Lake Lanier (Dam Pool) designation is due to the average of both EPD & RiverKeeper 2015 dam pool chlorophyll *a* growing season averages (3.81 µg/L & 8.17 µg/L respectively) being 5.99 µg/L which is above the Water Quality Standard of 5 µg/L. It is suggested that the Riverkeeper's 2015 chlorophyll *a* growing season average of more than double that found by EPD at the dam pool, should be discounted based on normal QA / QC procedures. The test of data acceptability for use in 303(d) listing decisions should be clear and scientifically defensible. This is especially true for Lake Lanier where listing decisions have significant implications. Not only was the Riverkeeper's 2015 dam pool chlorophyll *a* growing season average more than double EPD's growing season average, Riverkeeper's growing season averages at all 5 Lanier Water Quality Standards sites for both 2014 & 2015 were nearly double EPD's respective growing season averages and display a systematic bias. A look at Riverkeeper's individual monthly chlorophyll *a* data over 2014 & 2015 reveals that the values are consistently over EPD's data and display some systematic biases, even considering different sampling days, that should preclude the use of the Riverkeeper data in averaging with the EPD growing season averages. Contributing to the Riverkeeper's 2015 dam pool chlorophyll *a* growing season average is an August result of greater than 20 µg/L while EPD data shows a result of 6.2 µg/L. The Riverkeeper result (more than 3X greater than EPD's) is not realistic for the Lanier dam pool area based on historic data. It begs the question of

what QA/QC criteria EPD would use to deem that any chlorophyll *a* value was too different from EPD's own data or too far out of reasonable range to be used for 303(d) listing decisions (i.e. if Riverkeeper's 2015 dam pool growing season average was 20 µg/L, would even that have been used in the averaging without any scrutiny)? In summary, it is suggested that the 2016 303(d) "listing" decisions for the Lake Lanier dam pool site, should be based solely on EPD's own 2014 & 2015 chlorophyll *a* growing season average. Moving forward for future lists, more sample splits and closer comparisons of sample collection and analysis techniques may make averaging of growing season averages more appropriate for use in listing decisions.

Response:

Chattahoochee Riverkeeper has an approved SQAP to collect chlorophyll *a* data on Lake Lanier. They have been submitting data for 305(b)/303(d) purposes since 2010. It is true that the Riverkeeper's chlorophyll *a* data tended to be higher than that collected by EPD in 2014 and 2015. In previous years their data tracked more closely to EPD's. Sometimes the chlorophyll *a* concentrations they reported were higher and sometimes they were lower than what EPD measured. The Riverkeeper was contacted to see if there were any changes in their sampling technique between 2013 and 2014 and the answer was that there were no changes. It is important to note that chlorophyll *a* concentrations can vary substantially over a short period of time. For instance, EPD's data showed the chlorophyll *a* concentration at the dam pool was 1.06 µg/L on 7/23/2015 and was 6.20 µg/L on 8/6/2015 (a six-fold increase). Since EPD and the Chattahoochee Riverkeeper did not take samples on the same days, you can't directly compare our data sets. The Riverkeeper's chlorophyll *a* concentration of 20.63 µg/L on August 27, 2016, was high compared to historical concentrations. Riverkeeper was contacted to ensure that they data they submitted were correct and did not have a typographical error. They confirmed the value they reported. All their chlorophyll *a* data on Lake Lanier was high this day and the high values were backed up by lower than normal secchi depth values. EPD has determined that it does not have sufficient cause to discount the chlorophyll *a* data submitted by the Chattahoochee Riverkeeper. The Riverkeeper has requested EPD to do some split sampling with them in the future and EPD may coordinate this effort. Finally, it is important to note that there are no regulatory implications for placing a water in Category 3 (Assessment Pending). There are only regulatory implications from moving a water to Category 4 or 5 (Not Supporting). If other third parties wish to collect chlorophyll *a* data on Lake Lanier for 305(b)/303(d) listing purposes, they may submit a SQAP for approval.