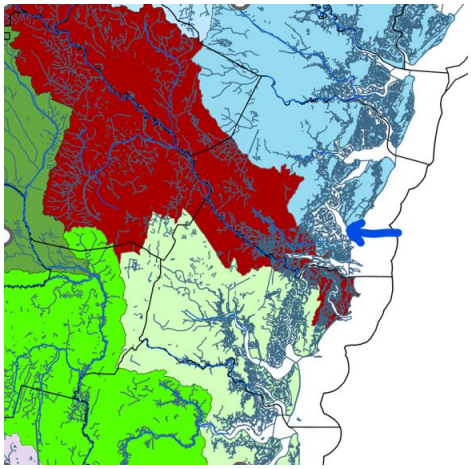
GA EPD draft 2024 305(b)/303(d) List – Response to Comments

Written Comments Received:

Comment: Please provide the rationale for "The River Basin for GAR030602040623 – Doboy Sound was corrected from the Altamaha River Basin to the Ogeechee River Basin." The Altamaha River feeds Doboy Sound; I cannot understand why it would be changed to Ogeechee.

Response: Using the most recent hydrologic boundaries determined by the United States Geological Survey (USGS), Doboy Sound (see blue arrow) is actually in the Ogeechee River Basin. This was determined by a collaborative effort with the Georgia Department of Natural Resources - Coastal Resource Division (CRD), Georgia Department of Natural Resources – Environmental Protection Division (EPD), and USGS to determine where the tidal nodes are located. Below is a GIS coverage of the Hydrologic Units with the Hydrology. The watersheds shaded blue are in the Ogeechee River Basin, those shaded red are in the Altamaha River Basin, and those shaded green are in the Satilla River Basin. As you can see, Doboy Sound. which is on the south side of Sapelo Island, is in the Ogeechee River Basin.



Comment: A Data Provider Code of "18" (Gwinnett County) should be added to GAR031300010821 – Lanier Lake (Dam Pool) because Gwinnett County has submitted chlorophyll *a* data under an approved SQAP.

Response: EPD has added "18" as a Data Provider Code for the Dam Pool section of Lake Lanier.

Comment: GAR030601060601- Butler Creek (Phinizy Ditch to Savannah River, Augusta) – should have been delisted for bacteria based on relevant bacteria data that was available to Georgia Environmental Protection Division and historic data available for the listed segment. The delisting should have been done based on the following supporting information: *The listed reach qualifies for delisting per EPD 2018 document "Nine-Element Watershed Management Plan for the Augusta Canal, Butler Creek, Beaverdam Ditch Watershed in Savannah River." It is stated in this document that "Based upon these data, a course of action will be taken to remove the fecal coliform impairment from this lower section of Butler Creek relative to the 500 cfu/100 cfu water quality standard" [see attached Exhibit A-Part 1]. In addition, data collected by*

Augusta, GA, from March 2020 through December 2023 support delisting the impaired segment because it was meeting applicable water quality standards and qualifies for delisting from 303d listing of impaired segments. [see attached Exhibit A-Part2]

Response: EPD is not delisting Bacteria from GAR030601060601 - Butler Creek (Phinizy Ditch to Savannah River, Augusta) for the following reasons: The "Nine-Element Watershed Management Plan" referenced above was developed by Augusta in 2018. The development of nine-element watershed management plans is a positive step in the ultimate restoration of impaired waters, but these plans are not self-implementing. Partners must do the work called for in the plans. The plan developed by Augusta stated that that ***"a course of action will be taken to remove the fecal coliform impairment from this lower section of Butler Creek relative to the 500 cfu/100 cfu water quality standard ."*** First, for clarification, the water quality criteria for fecal coliform bacteria were a geometric mean of 200/100 mL in the months of May – October and 1,000/ 100 mL in the months of November – April. The 500/100 mL criteria only applied if bacteria were coming from non-human sources. Regardless of what the fecal coliform criteria were, data were not submitted to support this delisting of bacteria when the 2024 305(b)/303(d) list was being developed. Specifically, 1) a sanitary survey as required by the rule was not submitted showing the source was non-human, 2) Augusta does not have an approved Sampling Quality Assurance Plan (SQAP) for this section of the Butler River, and 3) data was not submitted by the deadline for data submittal for the 2024 305(b)/303(d) list.

Chapter 391-3-6-.03(13) of Georgia's Rules and Regulations for Water Quality Control requires that data used for 305(b)/303(d) listing decisions be collected under an EPD approved SQAP. Augusta does not have an approved SQAP for sampling the lower portion of Butler Creek (Phinizy Ditch to Savannah River). Augusta is aware of the SQAP requirement and has submitted and received approval of SQAPs in the past and has submitted data for previous 305(b)/303(d) reports that resulted in stream delistings, including for the upper portion of Butler Creek (Tributary from Boardmans Pond to Phinizy Ditch). In addition, Part 3.3.7 of the City's MS4 permit also contains information about collecting bacteria data under an approved SQAP and it contains the requirements for when submittal of a SQAP is mandatory (if two years of data demonstrates that the level of bacteria is consistently below the criteria).

EPD issued a public notice on February 1, 2023, soliciting data for use in the development of the 2024 305(b)/303(d) list of waters. Data were to be submitted by July 3, 2023, and they were to be submitted to the TMDL Modeling and Development Unit, which is part of EPD's Watershed Planning and Monitoring Program. Augusta did not submit data to the TMDL Modeling and Development Unit of EPD's Watershed Protection Branch until February 7, 2024, which is the same day that the 2024 List was placed on public notice. Data may have been submitted to EPD's Nonpoint Source Program as required by their MS4 permit prior to February 2024; however, Part 3.3.7. of the MS4 permit states that "**In the event the monitoring is performed in accordance with an EPD-approved SQAP**, then the results must be submitted in the annual report, **but also submitted separately to EPD's Watershed Monitoring Program.** EPD responded to the City of Augusta's February 7, 2024, email stating that the deadline for data submittal had been missed, and gave instructions for what needed to be done in order for Augusta to submit data for the 2026 305(b)/303(d) list.

Comment: The listing decision for - GAR030601060308 - Spirit Creek (McDade Pond to Savannah River) is based on single sample values. This constitutes *Tier 2 data collected by GA EPD in 2018. Only four samples were collected; one each in March, August, October, and November. Out of four collected samples only one sample, collected in August, exceeded single*

sample threshold value and was used to place a 7-mile reach of Spirit Creek on impaired waters list. The area is not urbanized and the human factor is limited in vicinity of GA EPD sampling location. There is high probably other factors contributed to August 29, 2018, collected sample. The same segment was listed for Fecal Coliform previously and Augusta collected sufficient geometric mean data to delist this segment in 2006 through 2010. Also, this segment is listed for bacteria impairment identified as due to nonpoint source & urban runoff. This reach is not in an urban area. In our professional opinion based on historic relevant data, seasonal geo-ecosystem variability, and local knowledge of area land uses, a better fit listing for this segment should have been in Category 3 (assessment pending).

Response: Upon reevaluation of the 2018 data collected at RV_01_92 (Spirit Creek at State Road 56 near McBean, GA) EPD has decided to place *E. coli* in Category 3 (Assessment Pending) instead of Category 4a based on the small data set from 2018. EPD is resampling Sprit Creek in two locations in 2024, so data will be available to reassess the water for the 2026 305(b)/303(d) list, and depending upon the results, *E. coli* will be assessed as "Supporting" its criteria or *E. coli* will be added as an impairment. Further details regarding this decision are provided below.

GAR030601060308 - Spirit Creek (McDade Pond to the Savannah River) was first listed as impaired for fecal coliform bacteria on the 2000 305(b)/303(d) list of waters. EPD delisted fecal coliform on the 2012 305(b)/303(d) list of water based on data Augusta collected between 2010 and 2011 under an approved SQAP. The 2010/2011 data set included sufficient data to calculate 4 geometric means.

EPD resampled Spirit Creek at RV_01_92 in 2018. At that time, EPD collected a total of 4 samples of fecal coliform and *E. coli* bacteria (March, August, October, and November). In August 2018, both the fecal coliform and *E. coli* values were 800 MPN/100 mL. Based on the August fecal coliform values, fecal coliform was added as an impairment to the 2020 305(b)/303(d) list. The fecal coliform listing was changed to *E coli* on the 2024 305(b)/303(d) list based on the 2018 *E. coli* data from RV_01_92 as described in the document "Highlights of the draft 2024 305(b)/303(d) List of Waters." This document explains how if a water were listed as impaired for fecal coliform on the 2022 305(b)/303(d) list and there were historical *E. coli* data that also did not meet the new *E. coli* criteria, then the fecal coliform listing would be changed to *E. coli*, as it was on the 2024 list.

The Data Acceptability section of Georgia's Listing Assessment Methodology establishes the data quality and quantity needed to make listing decisions. If data is of high quality, but it does not meet the preferred minimum data set, then the data is classified as Tier 2 data. Tier 2 data are evaluated closely to determine whether the data quantity is sufficient to be used to assess the condition of the waterbody (i.e., determine if the designated use is being met or not) or if the waterbody needs to be placed in Category 3 (assessment pending) until additional data are collected. EPD needs to consider a number of factors when making this determination. These include evaluating: how close the data set is to the preferred minimum set; the reason the data set did not meet the preferred minimum (i.e. did the stream dry up part of the year making sampling impossible some months); the seasonality of the data with regards to the parameter being assessed; the data values in relation to the water quality criteria for that parameter; and results of other data including historical data at the site.

The preferred minimum data set for bacteria sampling in streams for the 2020 and 2024 305(b)/303(d) list of waters is 4 geometric means (with at least three samples collected in a 30-day period to calculate each geometric mean). Since only a total of four bacteria samples were

collected in 2018, this data is classified as Tier 2 data. EPD determined that this segment should have been placed into Category 3 instead of being assessed as being impaired for bacteria. This is because 1) the data set from 2018 only contains a quarter of the values that would be in the preferred data set; 2) the data set used to delist the stream in 2014 met the preferred data set requirements; and 3) the exceedances of fecal coliform and *E. coli* data in August 2018 were only about twice the value of the criteria while the other 3 values were well below the criteria.

EPD is sampling *E. coli* in Spirit Creek at RV_01_17681 - Spirit Creek just downstream of the Augusta Spirit Creek WPCP near Augusta, GA, and at RV_01_92 (Spirit Creek at State Road 56 near McBean, GA) in 2024. The data will be assessed for the 2026 305(b)/303(d) report. In the meantime, the 2005 TMDL for fecal coliform and the 2022 TMDL supplement that translated the fecal coliform TMDL to *E. coli* are in place.

Comment: More information is needed to justify how EPD determined specific water body segments were determined to have naturally low dissolved oxygen (DO) and pH. The information provided in the List Package does not sufficiently explain the scientific basis for how these determinations were made and how the EPD is assured that these water body segments are supporting their designated beneficial uses. ORK asks for more concrete, scientifically-based justifications for the determinations made here and in future "natural water quality" determinations. EPD explains that for pH, water body segments that have "been identified as a blackwater stream" that do not have any "point source or land use issues that may be contributing to the low pH measured in the steam" are not listed as impaired. However, no citations to scientific research, EPD reports, or other justification are made to show how EPD is assured that these "natural" low pH levels are supporting the beneficial uses. Less information is provided for the DO determination. In the 'Assessment of Waters Based on "Natural Water Quality"' section, EPD simply states that when "it was determined that that cause [of low DO] was likely due to natural conditions versus a human caused condition," the water body segment was not listed as not supporting their designated beneficial uses. However, no explanation of that determinations are explicitly provided in the List Package's documents.

Response:

Waters with Naturally Low pH

Georgia's pH criteria are found in Chapter 391-3-6-.03(6) of the Rules and Regulations for Water Quality Control. The pH criteria for all waters in the State are 6.0 to 8.5 standard units (except some reservoirs with site-specific pH criteria in Chapter 391-3-6-.03(17)). However, Chapter 391-3-6-.03(7) of the Rules and Regulations for Water Quality Control states the following: "*It is recognized that certain natural waters of the State may have a quality that will not be within the general or specific requirements contained herein. These circumstances do not constitute violations of water quality standards. This is especially the case for the criteria for dissolved oxygen, temperature, pH and bacteria. NPDES permits and best management practices will be the primary mechanisms for ensuring that discharges will not create a harmful situation*."

Georgia has numerous blackwater systems located within the Southeastern Plains and Southern Coastal Plain ecoregions. In Georgia, these ecoregions are located below the "fall line," which is where the Atlantic coastline existed millions of years ago. Below, or south and east, of the fall line, soils tend to be sandy, and streams tend to be low-gradient with sandy

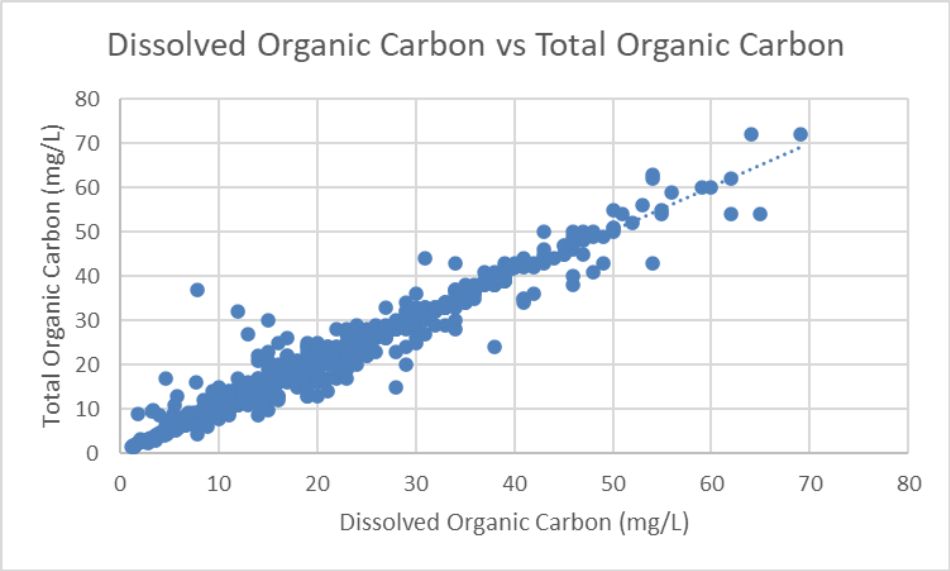
bottoms. The low-gradient nature of these streams means that the water flows much more slowly than it does in North Georgia. Leaves and other plant detritus that ends up in the streams break down and release tannins that give blackwater streams their dark color. Tannins are acidic in nature and the presence of tannins results in lower pH levels than is seen in other streams.

Low pH in blackwater systems does not preclude the presence of a healthy biological community. The Okeefenokee Swamp for example, located in Southeast Georgia, was established as a Wildlife Refuge in 1936. The U.S. Fish and Wildlife's "Comprehensive Conservation Plan" discusses the numerous species of fish, reptiles, amphibians, birds, and mammals that make their home in the swamp. This report also includes information about water quality in the swamp including the fact that pH can range from the upper 3's to middle 4's. EPA's Gold Book "Quality Criteria for Water – 1986" includes information about the derivation of recommended pH criteria, and according to this document, pH in the range of 5.0 to 6.0 is unlikely to be harmful to any fish species. A Fish Index of Biotic Integrity (IBI) study conducted in 2006 by Georgia Wildlife Resources Division (WRD) on the Canoochee River near Claxton, Georgia, found that while the pH of the stream is often in the 5's, the fish community had a narrative rank of "Good" indicating that the fish community is not impaired. EPD has also sampled macroinvertebrates on Dry Creek near Nicholls, Georgia, in 2006 and found the macroinvertebrate community scored a narrative rank of "Good" even though the pH on the day samples were collected was 4.79.

For these reasons, it is not unreasonable for EPD to assess blackwater streams as "Supporting" designated uses when the pH of the water is less than 6.0, since low pH in these blackwater streams is a natural condition. Therefore, Georgia is not listing blackwaters as impaired for pH in accordance with the Natural Water Quality provisions in Chapter 391-3-6-.03(7).

Making the determination on whether a stream is a blackwater or clearwater stream is not always an easy task. This is compounded by the fact that some streams are blackwater under some flow regimes, but clearwater under others. EPD has made the determination on whether a water was blackwater or not based on a number of different factors over the years. Prior to 2014, the determination was often made on the location of the stream (e.g. waters in Southern Coastal Plain are normally blackwater). In addition, field staff were sometimes contacted to ask if the stream was blackwater or not based on their visual observations. Beginning in 2014, field observations started to be included in our database along with the numeric water quality data collected at each site (pH, DO, temperature, conductivity, nutrients, total organic carbon, etc.). When collecting samples, staff would choose a description of water color based on a predetermined list (tannic, clearwater, muddy, etc.). In addition, they would make a determination of if they thought the water was blackwater or clearwater or if they were unsure. Since 2014, EPD has heavily relied on field observations to determine if a water is blackwater.

Field observations can be subjective. EPD would like to develop a more objective method to identify blackwater streams. EPD has been collecting Total Organic Carbon (TOC) for years. And in 2021, we began to monitor Dissolved Oxygen Carbon (DOC). An analyses of TOC and DOC data show that these parameters have nearly a 1:1 relationship as shown in the figure below.



U.S EPA's National Rivers and Streams Assessment Project uses DOC and color to identify blackwater streams. Waters having a DOC of ≥ 10 mg/L and a color of ≥50 PCU are classified as blackwater. These values were used nationwide to separate blackwater from clearwater streams. EPD does not routinely monitor for color, but is adding color to our routine water quality analysis, starting with waters below the fall line.

EPD did an evaluation of visual field color and DOC concentrations using data collected from 2022-2023, which showed that 95% of the streams with DOC concentrations 10 mg/L or greater were also described as having a tannic color. If the DOC were between 8 and 10 mg/L, the stream color was described as tannic 84% of the time. The DOC concentration cutoff for blackwater streams in Georgia may be between 8 and 10 mg/L. However, DOC concentrations ≥ 10 mg/L will be used to establish if a stream is blackwater and the low pH is therefore natural until such time that Georgia collects more state specific data to support a different criteria for identifying blackwater streams. In cases where EPD only has TOC data and no DOC data, EPD will use the TOC data to make the blackwater determination due to the high correlation between DOC and TOC concentrations. All the waters on Georgia's revised 2024 305(b)/303(d) list assessed as having naturally low pH are blackwater streams located in either the Southeastern Plains or Southern Coastal Plain ecoregions.

Reevaluation of Waters Assessed as Having Naturally Low pH

There were 288 waters on the draft 2024 305(b)/303(d) list assessed as having a naturally low pH. EPD reevaluated all these waters to make sure that all were blackwater streams as defined above (having a DOC/TOC ≥ 10 mg/L). Two hundred and forty-nine (249) of the 288 waters were determined to meet the blackwater stream criteria. These waters will remain in Category 1

for pH. The 39 remaining waters are addressed in the next comment discussing waters in Category 3.

EPD also reevaluated all of the waters that were in Category 3 for pH on the draft 2024 305(b)/303(d) list to see if any were blackwater. Of the 116 waters in Category 3 on the draft 2024 305(b)/303(d) List, the four (4) waters given in Table 1 were reassessed as supporting their designated use(s) (Category 1) for pH since they were found to meet the blackwater criteria and the low pH was determined to be natural.

Table 1 - Reassessment of Waters in Category 3 for pH on the Draft 2024 305(b)/303(d) List

Reach ID	Reach Name	Reach Location	Basin	New Category After Reassessment of Data
GAR030701050207	Alligator Creek	Lime Sink Creek to Whitewater Creek	Ocmulgee	1
GAR031102040405	Big Branch	Headwaters to Sumner Lake	Suwannee	1
GAR031300060801	Abrams Creek	Little Abrams Creek to the Flint River	Flint	1
GAR031200020504	West Branch Barnetts Creek	Pond 1.2 miles upstream GA Hwy 93 to Big Branch	Ochlockonee	1

The draft 2024 305(b)/303(d) list of waters had 51 waters assessed as being impaired (Category 5) for pH. The pH data for these waters were also reexamined and one water is being moved to Category 1 because no pH violations were recorded for this water and the water had been placed in Category 5 by mistake (see Table 2).

Table 2 - Reassessment of Waters Impaired (Category 5) for pH on the Draft 2024 305(b)/303(d) List

Reach ID	Reach Name	Reach Location	Basin	New Category after Reassessment of Data
GAR031102030407	Sugar Creek	Headwaters to One Mile Branch	Suwannee	1

The final 2024 305(b)/303(d) List of Waters has 254 waters assessed as having naturally low pH due to the water being blackwater and these waters are being placed in Category 1. A list of these waters can be found in the document Summary of Listing Decisions for the 2024 305(b)/303(d) list.

Waters with Naturally Low DO

Georgia's DO criteria are found in Chapter 391-3-6-.03(6) of the Rules and Regulations for Water Quality Control. The DO criteria for all waters in the State are a daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by WRD. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for water supporting warm water species of fish. However, Chapter 391-3-6-.03(7) of the Rules and Regulations for Water

Quality Control states the following: "*It is recognized that certain natural waters of the State may have a quality that will not be within the general or specific requirements contained herein. These circumstances do not constitute violations of water quality standards. This is especially the case for the criteria for dissolved oxygen, temperature, pH and bacteria. NPDES permits and best management practices will be the primary mechanisms for ensuring that discharges will not create a harmful situation*."

Waters located below the fall line (e.g. within the Southeastern Plains and Southern Coastal Plain ecoregions) tend to be low gradient leading to a lower reoxygenation rate. The DO of these waters may naturally be below the numeric criteria. In addition, many of the waters below the fall line are blackwater streams surrounded by wetlands. During high flows, water spills into the floodplain and the surrounding wetlands and swamps. Organic matter from the surrounding land can then be transferred to the stream, resulting in streams with high sediment oxygen demand (SOD). The combination of high organic content, low velocity and flow leading to decreased reaeration rates, and high temperatures can naturally lead to DO concentrations below the State's criteria.

EPD has assessed a number of waters having naturally low DO because measured DO values were above calculated "natural DO" concentrations. EPD currently has two methods for determining "natural DO" concentrations 1) water quality modeling and 2) calculation of DO percent saturation in estuarine waters.

In 2001, DO Total Maximum Daily Loads (TMDLs) were developed for waters in the Ochlockonee, Satilla, St. Marys, and Suwannee River Basins. Separate TMDL documents were written for each River Basin that contain the TMDLs for each stream segment. These TMDLs are still in effect. In 2006, Georgia EPD developed four documents that were reevaluations of these TMDLs. Calibrated models developed for each of the streams covered by the 2001 DO TMDLs were used to evaluate the measured DO as compared to the "natural DO" modeled. These models showed "natural DO" concentrations in some streams were less than the numeric DO criteria found in Chapter 391-3-6-.03(6) of the Rules and Regulations for water quality control. Sixteen (16) streams covered by the 2001 DO TMDLs had measured DO that was greater than the modeled "natural DO" in the stream. These 16 waters were included in Category 1 for DO on the draft 2024 305(b)/303(d) list. These 16 water waters remain in Category 1.

In response to this comment, EPD evaluated other existing water quality models for waters where DO was in Category 3 on the Draft 2024 305(b)/303(d) list. As part of the State Water Plan, EPD developed water quality DOSAG models for inland rivers and streams with wastewater treatment plants throughout the state. These models have been calibrated to match monitoring data and were used to determine the "natural DO" under critical conditions scenarios that included high temperature and low flow (7Q10) conditions, and no flow and pollutants from permitted point sources. Part VII.D.1.a.2 of EPD's Listing Assessment Methodology explains how EPD assesses waters where a "natural DO" has been established. This Methodology states: "In the case where the DO criteria are not met more than 10% of the time, but where a "natural" dissolved oxygen concentration has been established, then the dissolved oxygen data are compared against the established "natural" dissolved oxygen concentration. If any of the data points are less than the "natural" dissolved oxygen concentration, then the waterbody is determined not to be supporting its designated use. If none of the DO data are less than the natural DO, then the waterbody is determined to be "supporting" its use (as far as DO is concerned)."

For estuarine waters, the DO levels vary with temperature and salinity. As temperature and salinity increase, the amount of oxygen the water can hold decreases. For marine waters with DO concentrations less than 4 mg/L, EPD used the water temperature and conductivity (measured when DO readings were taken) to calculate the DO concentration (mg/L) at 100% saturation. The "natural DO" was calculated as DO concentration corresponding to 38%-42% saturation. This DO saturation range is within the minimum measured DO saturations found in Georgia coastal waters including the Ogeechee River, Little Ogeechee River, Kilkenny Creek, Ossabaw Sound, Laurel View River/Jerico River /Jones Creek, Turtle River, Satilla River, Little Satilla River, and Cumberland Sound and the minimum DO percent saturation used by the Florida Department of Environmental Protection to determine their DO criteria. The lowest measured DO concentration for estuarine waters that were in Category 3 for DO on the draft 2024 305(b)/303(d) list were compared with the calculated DO value at 38-42% saturation. If the measured value was above the calculated DO value at 38% DO saturation, the water was assessed as being in Category 1 for DO (e.g. low DO was natural).

Reevaluation of Waters Assessed as Having Naturally Low DO

Existing DOSAG models were identified for thirty-six (36) stream segments that had low DO based on monitoring data from 43 monitoring sites. The DOSAG models were used to evaluate if the measured DO was "natural." If the minimum measured DO value for a stream segment was greater than the DOSAG "natural DO" modeled value for that segment, then the stream was considered to have naturally low DO and to be supporting its designated use(s). Results of this analysis are given in Table 3. Six (6) streams found to have naturally low DO and are meeting their designated use(s) are being listed in Category 1. The data indicate that one segment needs to be split because this segment included two monitoring sites and the measured DO at one site was above the "natural DO" and at the second site was below the "natural DO." The 31 remaining stream segments are addressed in the next comment discussing waters in Category 3.

Table 3. Reassessment of Waters for Low DO Assessed as Needing More Data on the Draft 2024 305(b)/303(d) List based on available Water Quality Models

Reach ID	Reach Name	Reach Location	Basin	Min Measured DO [a] (mg/L)	Modeled "Natural" DO (mg/L)	New Category After Reassessment of Data
GAR031300100705	Fishpond Drain	Wash Pond to Lake Seminole	Flint	1.93	1.55	1
GAR030702010703	Satilla River	Seventeen Mile River to US Hwy 84/Ga. Hwy. 38	Satilla	3.89 3.1	1.99 1.63	1 1
GAR031102020201	Deep Creek	West Fork Deep Creek to Lake Creek East of Ashburn	Suwannee	5.35	>5	1
GAR031102020309	Hat Creek	Unnamed tributary 100 feet upstream Robert Davis Rd to SR S 1989 S.E. (E. Inaha Rd)	Suwannee	3.33	2.98	1
GAR031102030414	Withlacoochee River	Cat Creek to Bay Branch	Suwannee	3.17 4.47	3.8 3.8	1 1
GAR031102010203	Tatum Creek (formerly Jones Creek)	Dry Branch to the Suwannee River	Suwannee	3.55	2.83	1

a – where multiple measured DO values are provided, this represents minimum measured values for each individual monitoring location.

For estuarine waters, the DO levels vary with temperature and salinity. There are forty-four (44) estuarine waters listed as assessment pending (Category 3) on the draft 2024 305(b)/303(d) List that EPD reassessed to determine the "natural DO." EPD used the measured water temperature and conductivity to calculate the DO concentration (mg/L) at 100% saturation and then determined the "natural DO," which is the DO at a DO saturation between 38%-42%.

In Table 4, EPD found the lowest measured DO from thirty-four (34) estuarine waters when compared to the calculated "natural DO" were above or within the range of "natural DOs." Thus, these streams are considered to be supporting their designated uses and are being placed in Category 1. The 10 remaining waters are addressed in the next comment discussing waters in Category 3.

Table 4. Reassessment of Waters Assessed as Needing More Data on the Draft 2024 305(b)/303(d) List based on % DO Saturation

Reach ID	Reach Name	Reach Location	Basin	Measured Temperature (deg C)	Measured Specific Conductance (uS/cm)	Min Measured DO (mg/L)	Calculated "Natural" DO (mg/L)	New Category After Reassessment of Data
GAR030701060520	Hampton River	Jones Creek to Mosquito Creek	Altamaha	27.27	43700	3.10	2.57	1
GAR030701060522	Tributary to Village Creek	Headwaters to Village Creek	Altamaha	25.5	46100	2.90	2.63	1
GAR030602040802	Barn Creek	Headwaters to the Duplin River	Ogeechee	27.09	47929	2.61	2.54	1
GAR030602040413	Cay Creek	U.S. Hwy 17 to North Newport River	Ogeechee	29.47	16572	3.04	2.75	1
GAR030602040805	Duplin River	Headwaters to Doboy Sound	Ogeechee	28.81	41300	3.12	2.53	1
GAR030602040527	Lincoln Creek	Headwaters to Cubbage Creek	Ogeechee	28.81	38719	3.27	2.56	1
GAR030602040719	Mud River	Old Teakettle Creek (aka Old Creek) to New Teakettle Creek (aka Little Teakettle Creek)	Ogeechee	21.7	47000	2.91	2.80	1
GAR030602040410	North Newport River	Payne Creek to Carrs Neck Creek	Ogeechee	30.2	38400	2.80	2.51	1
GAR030602040414	North Newport River	Cay Creek to Payne Creek	Ogeechee	29.46	29371	3.24	2.62	1
GAR030602040316	Ogeechee River	Richmond Hill 4.7 miles downstream US Hwy 17 to Bear River/Florida Passage	Ogeechee	27.99	13070	3.47	2.85	1
GAR030602040319	Ogeechee River	Canoochee River to U.S. 17	Ogeechee	25.54	444	3.22	3.11	1
GAR030602040320	Ogeechee River	U.S. 17 to Richmond Hill 4.7 miles downstream US Hwy 17	Ogeechee	25.54	444	3.22	3.11	1
GAR030602040415	Riceboro Creek	Tributary at Barrington Ferry Road to North Newport River	Ogeechee	27.79	10464	3.04	2.89	1
GAR030602040212	Salt Creek	Bend one-mile upstream US 17 to the Hardin Canal	Ogeechee	29.15	16700	2.80	2.76	1
GAR030602040629	South Newport River	US Highway 17 to South Hampton Creek	Ogeechee	30.31	20000	3.13	2.68	1
GAR030702030237	Academy Creek	Downstream Brunswick Academy WPCP to the East River	Satilla	27.43	40728	2.72	2.60	1
GAR030702030308	Cobb Creek	Headwaters to Jointer Creek	Satilla	29.4	42600	2.60	2.50	1
GAR030702030536	Crooked Creek	Sadlers Creek to Grover Creek	Satilla	30.97	39016	3.65	2.47	1
GAR030702030537	Delaroche Creek	Headwaters to 0.4 miles upstream of the Cumberland River	Satilla	29	46800	2.90	2.47	1

Reach ID	Reach Name	Reach Location	Basin	Measured Temperature (deg C)	Measured Specific Conductance (uS/cm)	Min Measured DO (mg/L)	Calculated "Natural" DO (mg/L)	New Category After Reassessment of Data
GAR030702030227	Dunbar Creek	0.5 mi d/s of Sea Island Rd to Frederica River	Satilla	28.79	36000	3.12	2.59	1
GAR030702030202	Gibson Creek	Headwaters to the Turtle River (Brunswick)	Satilla	29.91	42700	2.81	2.48	1
GAR030702030303	Honey Creek	Headwaters to the Little Satilla River	Satilla	29.6	30800	2.9	2.61	1
GAR030702030313	Jointer Creek	Headwaters to Cobb Creek	Satilla	29.7	39200	2.7	2.52	1
GAR030702030212	Yellow Bluff Creek	Headwaters to approximately 1-mile downstream US Hwy 25	Satilla	24.18	38800	3.26	2.77	1
GAR030702030302	Little Satilla River	Fancy Bluff Creek to Maiden Creek	Satilla	30.63	57900	2.54	2.30	1
GAR030702030311	Little Satilla River	Maiden Creek to island 2 miles upstream Jekyll Sound	Satilla	29.5	26100	3.20	2.53	1
GAR030702030306	Maiden Creek	Headwaters to Little Satilla River	Satilla	28.8	37400	2.60	2.57	1
GAR030702030203	Purvis Creek	Brunswick	Satilla	29.88	44200	2.87	2.46	1
GAR030702030238	Terry and Dupree Creek	Dupree Creek and Terry Creek from Torras Causeway to 0.5 miles downstream the confluence of Terry and Dupree Creek.	Satilla	29	42400	2.70	2.52	1
GAR030702030239	Terry Creek	0.5 miles downstream the confluence of Terry and Dupree Creek to the Back River	Satilla	29	42400	2.70	2.52	1
GAR030702030226	Village Creek	Blackbank River to bend in creek at Village Drive	Satilla	29.3	43100	3.20	2.50	1
GAR030702040915	Burrells Creek	Dark Entry Creek to the St. Marys River	St. Marys	30.28	12648	3.14	2.75	1
GAR030702040914	Casey Creek	Miller Branch to St. Marys River	St. Marys	27.83	586.3	3.13	2.98	1
GAR030702040913	Miller Branch	Casey Creek to the St. Marys River	St. Marys	28.09	3607	3.48	2.94	1

Comment: In its 2024 List Package, EPD included a number of water body segments in the Category 3 "Assessment Pending" category for DO and pH. In the "Summary of Listing Decisions for the 2024 305(b)/303(d) List of Waters" document, EPD explains that this category is meant for situations "when there is insufficient data or information to make an assessment on whether the water is meeting its designated use(s)." However, data is not the issue - monitoring data for both DO and pH are known for the water body segments added to this category related to "natural water quality." Further, for DO, EPD states that "water quality data indicated that the DO criteria were not being met…," clearing showing sufficient data existing. Where water quality criteria exist, as they do for DO and pH, those measures indicate whether the beneficial uses are being supported. Water quality criteria are set to ensure that the most vulnerable beneficial uses are protected. Therefore, when a water body segment does not meet water quality criteria requirements, it is not supporting its beneficial use. And because sufficient data and information exists to make that assessment, these particular segments should not be placed in Category 3. Because sufficient data and information exist to determine whether beneficial uses are being met under current water quality laws, EPD should remove Listing Methodologies D.1.a.3 and D.1.b.2 from its Assessment Methodology and then list the Category 3 water body segments awaiting "natural water quality" criteria as "not supporting" their designated beneficial uses.

Response:

Waters are placed in Category 3 (Assessment Pending) when there is insufficient data or information to make an assessment on whether the water is meeting its designated use(s) or not. As stated above, Chapter 391-3-6-.03(7) of the Rules and Regulations for Water Quality Control states that certain natural waters of the State may have a quality that will not be within the general or specific requirements contained herein. These circumstances do not constitute violations of water quality standards. Before EPD assesses a water as being impaired for a given parameter, we need to ensure that the data used to make the listing determination are accurate and that exceedences of water quality criteria are not due to natural conditions.

Reevaluation of Waters in Category 3 for pH

EPD places waters in Category 3 for pH because we are not certain that our pH data are accurate. As explained in document draft "Summary of Listing Decisions for the 2024 305(b)/303(d) List of Waters," obtaining accurate pH measurements in waters with low conductivity can be difficult based on how pH meters work. This assessment is supported by the USGS National Field Manual for Collection of Water-Quality Data, Chapter 6.4 Section A, which states that "Accurate and precise measurement of pH in low-specific-conductance waters (less than 100 µS/cm) is challenging because (1) the water is not sufficiently conductive to complete the electrical circuit and allow for a stable pH reading using a combination pH electrode, (2) differences in ionic strength between the sample and buffers are large, and (3) the potential of the liquid junction is larger than normal."

EPD has been working to develop methods to obtain more accurate pH readings in waters with low conductivity. EPD has measured pH from a sample of stream water rather than taking instream pH measurements where stream flow can interfere with the measurement if a water has low conductivity. EPD has purchased new pH meters that are supposed to be able to better measure the pH of low conductivity waters. In addition, as described in the USGS document "Measurement of pH, Chapter 6.4 of Section A, National Field Manual for the Collection of Water-Quality Data, Book 9, Handbooks for Water-Resources Investigations", EPD is going add salt to water samples to raise the conductivity before taking pH. Adding salt does not impact the pH of the sample, but it will allow us to get an accurate measurement. Until all of these methods have been used, waters with low conductivity that are not blackwaters and that have pH values below 6.0 in more than 10% of the samples are being placed in Category 3 assessment pending for pH.

In addition, EPD has determined that pH may be naturally low if waters with low alkalinity (< 20 mg/L as $CaCO_3$). A review of data shows that most non-blackwater streams with a pH of less than 6.0 have alkalinity concentrations of 20 mg/L (as $CaCO_3$) or less. Waters with low alkalinity (< 20 mg/L as $CaCO_3$) may need additional information to determine the validity of the pH measurement. Alkalinity is a measure of a water's ability to neutralize acid. The lower a water's alkalinity, the lower the buffering capacity, the higher the impact the addition of an acid will have on the pH. Pure water exposed to the atmosphere will have a pH in the 5's due to the formation of carbonic acid when carbon dioxide dissolves into the water. Other natural acids that could impact the pH of a water with low alkalinity are leaf litter/pine needles or the impact of springs or groundwater (which can be acidic). There are also anthropogenic sources of acids that could enter the stream via spills or stormwater runoff. EPD believes that some waters with low alkalinity (e.g. < 20 mg/L as $CaCO_3$) may have naturally low pH and EPD needs to collect additional data and information on pH in these low alkalinity waters. Until EPD has established whether the low pH is a natural condition in low alkalinity waters that have a high conductivity greater than 100 µS/cm, these waters will be placed in a new State

Category, 3N. Category 3N is a subcategory of EPA's Category 3 waters. The "N" in 3N stands for "Natural" since EPD believes that the low pH may be a natural condition. The "3" in Category 3N shows that EPD has assessed the waters as "Assessment Pending".

EPD reassessed all waters on the draft 2024 305(b)/303(d) list that had been assessed as 1) having a naturally low pH, 2) were in Category 3 for pH, and 3) were listed as not supporting for pH (Categories 4a and 5). The following rationale was used in the reassessment of the waters to determine their proper category:

- As mentioned in the response to the previous comment, if TOC/DOC was greater than or equal to 10 mg/L waters were assessed as having a naturally low pH (Category 1) because the water is blackwater.

- For waters with low pH that did not meet the current definition of blackwater (TOC/DOC < 10 mg/L)

    - If Conductivity is less than 100 µS/cm then the water is being placed in Category 3 until we use new methods for measuring pH in waters with low conductivity.

    - If Conductivity is greater than 100 µS/cm, but alkalinity is less than 20 mg/L $CaCO_3$, the water was placed into Category 3N.

    - If Conductivity is greater than 100 µS/cm, and alkalinity is greater than or equal to 20 mg/L $CaCO_3$ the water was assessed as being impaired for pH and was placed in Category 5.

The section below explains the changes that were made to how waters were assessed for pH between the draft and final 2024 305(b)/303(d) lists.

As described in the response to the previous comment, 39 waters that had been assessed as having a naturally low pH (Category 1) on the draft 2024 305(b)/303(d) List are not considered blackwaters since the TOC/DOC of these waters is less than 10 mg/L. Three (3) of these waters have been relisted as Category 4a since TMDLs for pH have already been developed for these streams. Two (2) other waters have been reassessed as assessment pending (Category 3) for pH based limited available data. The other 34 waters have been reassessed as assessment pending (Category 3) for pH based on additional water quality data collected (specifically alkalinity and conductivity). These 34 waters have low measured conductivity (<100 µS/cm) and/or alkalinity (<20 mg/L as $CaCO_3$). Due to the low conductivity measured in thirty-three of these waters, the waters are being listed as assessment pending for pH due to the difficulty of accurately measuring pH in water with low conductivity. There was one (1) water that has low alkalinity (<20 mg/L as $CaCO_3$), but we are confident in the low pH measurement because the conductivity is >100 µS/cm. This water is considered to be potentially natural and is being listed as assessment pending Category 3N. Table 5 provides the reassessment and revised listing for the 39 waters based on the updated Listing Assessment Methodology for assessing pH.

Table 5 – Reassessment of Waters Assessed as Having a Naturally Low pH on the Draft 2024 305(b)/303(d) List that Do Not Meet the Current Blackwater Criteria

Reach ID	Reach Name	Reach Location	Basin	Reassessment of Data	New Category After Reassessment of Data
GAR030701070209	Hurricane Branch	Pond 0.3 miles downstream Pringle Road to the Little Ohoopee River	Altamaha	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701070408	Pendleton Creek	Headwaters to tributary 0.5 miles downstream U.S. 80	Altamaha	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701070409	Pendleton Creek	Tributary 0.5 miles downstream U.S. 80 to tributary 0.2 miles downstream Anderson Pond Road	Altamaha	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701070111	Poley Creek	Renfore Creek to the Ohoopee River	Altamaha	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701060310	Tributary to Spring Branch	Tributary 360 feet downstream City of Glennville to Spring Branch	Altamaha	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity >20 mg/L as $CaCO_3$	3
GAR031300030314	Upatoi Creek	Heriot Creek to Armory Creek	Chattahoochee	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300030315	Upatoi Creek	Armory Creek to the Chattahoochee River	Chattahoochee	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051411	Beaver Creek	Headwaters to Avery Creek	Flint	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051313	Beaver Creek	Headwaters to Patsiliga Creek, Butler	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051509	Cedar Creek	Turkey Branch to Sand Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300070501	Chokeelagee Creek	Headwaters to Kinchafoonee Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051602	Horse Creek	Taylor Mill Lake to Flint River	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051314	Patsiliga Creek	Headwaters to McCants Mill Pond	Flint	TOC <10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051312	Patsiliga Creek	Beaver Creek to Flint River, Butler	Flint	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051508	Sand Creek	Brooks Mill Pond to Cedar Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051510	Sand Creek	Cedar Creek to Whitewater Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR031300051410	Spring Creek (formerly Avera Creek)	Headwaters to Beaver Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ TMDL Done	4a
GAR031300051505	Whitewater Creek	Sand Creek to Flint River	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ TMDL Done	4a
GAR031300051506	Whitewater Creek	Little Whitewater Creek to Sand Creek	Flint	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ TMDL Done	4a

Reach ID	Reach Name	Reach Location	Basin	Reassessment of Data	New Category After Reassessment of Data
GAR031200030201	Swamp Creek	SR 262 (Antioch Church Rd) to Stateline	Ochlockonee	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ No discharges	3
GAR031101030202	Connell Creek	Headwaters to the Florida State Line	Ochlockonee	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701050205	Alligator Creek	0.9 miles downstream U.S. Hwy. 280 to Little Ocmulgee River	Ocmulgee	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ No discharges	3
GAR030602010202	Big Creek	Headwaters to the Ogeechee River	Ogeechee	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701040411	Tributary to South Prong Creek	Headwaters to South Prong Creek	Ocmulgee	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030602020308	Henderson Mill Branch	Headwaters to Julie Pond	Ogeechee	TOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030602010505	Williamson Swamp Creek	Headwaters to Mays Millpond	Ogeechee	TOC <10 mg/L Conductivity sometimes over 100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3N
GAR030602010511	Williamson Swamp Creek	Mays Millpond to Kittrell Creek	Ogeechee	TOC <10 mg/L Conductivity 100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030701021011	Stitchihatchie Creek	Whitley Branch to Rocky Creek	Oconee	Lack of data – only partial year available and only 1 pH violation	3
GAR030602010103	Ogeechee River	Long Creek to Hwy. 102 near Jewell	Ogeechee	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030602010203	Ogeechee River	Hwy 102 to Rocky Comfort Creek	Ogeechee	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030602010301	Rocky Comfort Creek	Joes Creek to Ivey Branch near Edgehill	Ogeechee	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601060601	Butler Creek	Phinizy Ditch to Savannah River, Augusta	Savannah	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601060311	Chicken Branch	Headwaters to Spirit Creek	Savannah	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601080108	Dry Branch	Headwaters to Sweetwater Creek	Savannah	DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601060309	Little Spirit Creek	Headwaters to Spirit Creek	Savannah	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601090324	Pipe Makers Canal	Headwaters to Tributary 1-mile upstream Pooler Parkway	Savannah	Lack of data – only partial year available low pH 5/8 no TOC/DOC and alkalinity Conductivity >100 µS/cm	3
GAR030601060308	Spirit Creek	McDade Pond to Savannah River	Savannah	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3
GAR030601080103	Sweetwater Creek	Headwaters to Brier Creek	Savannah	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$	3

Reach ID	Reach Name	Reach Location	Basin	Reassessment of Data	New Category After Reassessment of Data
GAR031102020609	Tributary to Turkey Branch	Tributary 300 feet upstream of W Cypress St to Turkey Branch	Suwannee	TOC/DOC<10 mg/L Conductivity <100 µS/cm Alkalinity <20 mg/L as $CaCO_3$ only 6 months of data.	3

EPD reanalyzed all the waters where pH was in Category 3 on the draft 2024 305(b)/303(d) List. There were 116 waters that were listed as assessment pending (Category 3) on the draft 305(b)/303(d) List for pH. Of these, four (4) waters were found to be supporting their designated uses as discussed in the response to the previous comment (see Table 1). One hundred and eight (108) waters have measured conductivity was less than 100 µS/cm. One (1) water needs more data. Thus, these 109 waters will remain in Category 3. One (1) water has low alkalinity (<20 mg/L as $CaCO_3$), but measured conductivity >100 µS/cm and is being listed as Category 3N. Two (2) waters were found to be impaired because the measured conductivity was greater than 100 µS/cm and the alkalinity was greater than 20 mg/L and are being listed as Category 5 (see Table 6).

Table 6 – Reassessment of Waters in Category 3 for pH on the Draft 2024 305(b)/303(d) List

Reach ID	Reach Name	Reach Location	Basin	New Category after Reassessment of Data
GAR030601080506	Chandlers Branch	Sardis WPCP to pond 0.4 miles downstream Charles Perry Avenue	Savannah	3N
GAR031300021220	Tributary to Mulberry Creek	Headwaters to Oak View Home WPCP	Chattahoochee	5
GAR030601020501	Eastanollee Creek	Headwaters in Toccoa to Lake Hartwell	Savannah	5

Of the 51 waters assessed as impaired (Category 5) for pH on the draft 2024 305(b)/303(d) List, as discussed in the response to the previous comment, one (1) water was found not to be impaired for pH (see Table 2). Forty (40) waters were reassessed as assessment pending (Category 3) because the measured conductivity was <100 µS/cm. The remaining 10 waters will remain in Category 5.

Table 7 – Reassessment of Waters Impaired (Category 5) for pH on the Draft 2024 305(b)/303(d) List

Reach ID	Reach Name	Reach Location	Basin	New Category after Reassessment of Data
GAR030601020106	Tallulah River	State line to Lake Burton	Savannah	3
GAR030601020110	Rabun Lake	Rabun County	Savannah	3
GAR030601020114	Popcorn Creek	Headwaters to Burton Lake	Savannah	3
GAR030701010514	Noketchee Creek	Headwaters to Sandy Creek	Oconee	3
GAR030701010516	East Sandy Creek	Long Branch to Sandy Creek	Oconee	3
GAR030701010517	Little Sandy Creek	Headwaters to Sandy Creek O Trail Creek Reservoir #2	Oconee	3

Reach ID	Reach Name	Reach Location	Basin	New Category after Reassessment of Data
GAR030701010808	Apalachee River	Williamson Creek to Marbury Creek	Oconee	3
GAR030701011014	Apalachee River	Freeman Creek to Lake Oconee	Oconee	3
GAR030701011708	Rock Creek	Tributary 0.4 miles downstream of Bradley Road to Putnam Jones County Line	Oconee	3
GAR030701031211	Little Towaliga River	Big Towaliga River to the Towaliga River	Ocmulgee	3
GAR030701031216	Towaliga River	High Falls Lake to Ocmulgee River	Ocmulgee	3
GAR030701040115	Cainey Branch	Lake Placid to Sandy Run Creek	Ocmulgee	3
GAR031102030411	Tributary to Sugar Creek	Headwaters to Sugar Creek	Suwannee	3
GAR031200020706	Tributary to Parkers Mill Creek	Pond at headwaters to Parkers Mill Creek	Ochlockonee	3
GAR031300010108	Chattahoochee River	Headwaters to Jasus Creek	Chattahoochee	3
GAR031300010514	Glade Branch	Headwaters to Town Creek	Chattahoochee	3
GAR031300020430	Whooping Creek	Headwaters to Carthbody Creek	Chattahoochee	3
GAR031300020431	Whooping Creek	Cartbody Creek to the Chattahoochee River	Chattahoochee	3
GAR031300020804	Whitewater Creek	Headwaters to tributary 0.5 miles upstream Heard/Troup County Line	Chattahoochee	3
GAR031300021215	Palmetto Creek	Unnamed Tributary 0.3 miles upstream Barnes Mill Road to Unnamed Tributary 1-mile downstream Barnes Mill Road	Chattahoochee	3
GAR031300030903	Talipahoga Rum Creek	Headwaters to Bradley Lake Tributary at Wall Rd	Chattahoochee	3
GAR031300050903	Basin Creek	Headwaters to Hightower Lake	Flint	3
GAR031300050922	Tributary to the Red River	Lake Julia to the Red River	Flint	3
GAR031300070203	Clear Creek	Headwaters to Kinchafoonee Creek	Flint	3
GAR031300070303	Pessell Creek	Headwaters to Kinchafoonee Creek	Flint	3
GAR031300070402	Tributary to Bear Creek	Headwaters to Bear Creek	Flint	3
GAR031300070404	Bear Creek	Pond 1-mile upstream Sundown Rd to Little Bear Creek	Flint	3
GAR031501020110	Cartecay River	Licklog Creek to Clear Creek	Coosa	3
GAR031501020114	Clear Creek	Headwaters to Cartecay River	Coosa	3
GAR031501040208	Tributary #2 to Little Amicalola Creek	Headwaters to Amicalola Lake	Coosa	3
GAR031501041309	Etowah River	Lake Allatoona to Pumpkinvine Creek	Coosa	3
GAR031501050409	Harrisburg Creek	Headwaters (Allen Creek) to Spring Creek	Coosa	3
GAR031501050703	East Fork Little River	Headwaters to Alabama State Line	Coosa	3
GAR060200010703	Little Chickamauga Creek	Headwaters to Coulter Creek	Tennessee	3

Reach ID	Reach Name	Reach Location	Basin	New Category after Reassessment of Data
GAR060200020529	Nottely River	Right/Left Forks to Allison Branch	Tennessee	3
GAR060200020607	Moccasin Creek	Lance Branch to State Line	Tennessee	3
GAR060200020608	Tributary to South Fork Rapier Mill Creek	Stateline to South Fork Rapier Mill Creek	Tennessee	3
GAR060200030204	Hothouse Creek	State line to Toccoa River	Tennessee	3
GAR060200030206	Sugar Creek	Stillhouse Creek to the Toccoa River	Tennessee	3
GAR060200030209	Bryan Creek	Headwaters to Hemptown Creek	Tennessee	3

Reevaluation of Waters in Category 3 for DO

EPD places waters in Category 3 for dissolved oxygen (DO) because we need to collect the necessary data and information to determine if the low DO is due to natural conditions. The vast majority these waters are located below the fall line within the Coastal Plain (e.g. Southeastern Plains and Southern Coastal Plain ecoregions) where streams tend to be low gradient resulting in low stream flows and velocities, which leads to lower reaeration. Many of these streams are blackwater surrounded by wetlands and swamps with high organic matter and SOD levels. Thus, the DO in these waters may be naturally below the numeric criteria. Other streams with low DO are located in forested wetlands or swamps. These waters may not meet the definition of blackwater streams by their DOC/TOC concentrations, but they share many of the same characteristics of blackwater streams including low gradients resulting in low streamflows and low reaeration.

In streams with permitted discharges, the DO may not meet the DO criteria if the streamflow was less than the 7Q10 at the time the DO measurement was taken since this is the critical flow used to determine permit limits. As outlined in Chapter 391-3-6-.03(9) of the Rules and Regulations for Water Quality Control, this low DO does not constitute a violation of water quality standards as long as all current permit conditions are being met. Freshwaters that have been modeled may need additional data to ensure that an existing model is producing accurate results. For instance, in blackwaters, reaeration rates may be lower and SOD rates may be higher than in clear water streams. Modeled stream velocities and water depths may also need to be revised.

Other streams not meeting the DO criteria due to natural conditions are small tidal creeks and headwaters streams with small watersheds. These streams can have less water in them and have a tendency to dry up. Furthermore, groundwater contributions to these streams may be lowering the DO as groundwater often has low DO concentrations. EPD needs to collect additional data and information to help determine what natural conditions are in these types of waters.

Waters located downstream of impoundments/beaver dams may also have low DO due to lack of water being released from the dam. More information may be needed to determine the impact impoundments are having on DO concentrations.

There were 197 waters in Category 3 for DO on the draft 2024 305(b)/303(d) list of waters. The vast majority of the 197 waters are located below the fall line within the Coastal Plain. Based on

a reassessment of the water quality data, 132 of these streams were found to be blackwaters with TOC/DOC concentrations greater than 10 mg/L. Four of the blackwaters are remaining in Category 3 due to lack of data. Thirty-one (31) of these blackwater streams have DOSAG models that were used to evaluate whether the low DO was natural, and 19 of these blackwater streams are estuarine that used a DO saturation of 38% to evaluate whether the low DO was natural. The remaining seventy-eight (78) blackwater streams are believed to have natural low DO and are being placed in Category 3N for DO until EPD gathers the necessary information to determine the "natural DO" for these waters. Once the "natural DO" is established, measured DO values will be compared with the natural condition and an assessment will be made.

As described in the response to the previous comment, 36 streams were included in water quality models, and one water was split. Thirty-one (31) of these streams had measured DO below the modeled "natural DO" (see Table 8). Of these, 26 are blackwater streams. Additional data needs to be collected to ensure that the correct inputs are being used for the various variables used by the model, including critical flows and temperatures, and appropriate reaeration and SOD rates. In addition, streamflow information at the time DO measurements were taken will need to be verified. Therefore, these waters are being placed in Category 3N.

Table 8. Reassessment of Waters with Low DO Assessed as Needing More Data on the Draft 2024 305(b)/303(d) List based on available Water Quality Models

Reach ID	Reach Name	Reach Location	Basin	Min Measured DO [a] (mg/L)	Modeled "Natural" DO (mg/L)	New Category After Reassessment of Data
GAR030701070110	Big Cedar Creek	Little Cedar Creek (at Donovan Hwy) to Little Cedar Creek (downstream Hwy 57)	Altamaha	2.98	3.8	3N
GAR030701070109	Tributary to Little Cedar Creek	Headwaters to Little Cedar Creek	Altamaha	1.63	3.26	3N
GAR031300070801	Muckalee Creek	Galey Creek to tributary 1.3 miles downstream US 19, Americus	Flint	2.31	6.39	3N
GAR031200020204	Mill Creek	City of Doerun WPCP to Bridge Creek	Ochlockonee	1.28	3.9	3N
GAR030701050406	Little Ocmulgee River	Little Ocmulgee State Park Lake to Wilcox Creek	Ocmulgee	1.13	4.73	3N
GAR030701021404	Limestone Creek	Mount Vernon WPCP to the Oconee River	Oconee	0.26	5.91	3N
GAR030602020504	Ash Branch	Futch Branch to Lower Black Creek	Ogeechee	1.28	2.38	3N
GAR030602030411	Canoochee River	Fifteen Mile Creek to Cedar Creek	Ogeechee	1.35 2.71	3.93 3.28	3N
GAR030602030313	Little Lotts Creek	Unnamed tributary @ Burkhalter Road to Lotts Creek	Ogeechee	1.78	3.55	3N
GAR030602020505	Lower Black Creek	Luke Swamp Branch to Ash Branch	Ogeechee	0.04	3.24	3N
GAR030602020402	Mill Creek	Akins Pond to Newsome Branch	Ogeechee	1.58	3.69	3N
GAR030602020508	Mill Creek	George Branch to Black Creek	Ogeechee	1.24	5.38	3N
GAR030602020503	Pole Branch	Headwaters to Upper Black Creek	Ogeechee	2.82 (stream dry June - Dec)	3.07	3N

Reach ID	Reach Name	Reach Location	Basin	Min Measured DO [a] (mg/L)	Modeled "Natural" DO (mg/L)	New Category After Reassessment of Data
GAR030602030505	Taylors Creek	Tributary 3.3 miles upstream GA 119 to Tributary 0.4 miles downstream GA 119, Fort Stewart"	Ogeechee	0.13	3.19	3N
GAR030602020509	Upper Black Creek	Crombly Pond to Lower Black Creek	Ogeechee	2.63	3.39	3N
GAR030602010505	Williamson Swamp Creek	Headwaters to Mays Millpond	Ogeechee	0.13	5.26	3N
GAR030702010303	Little Red Bluff Creek	Headwaters to Red Bluff Creek	Satilla	0.14	5.03	3N
GAR030702011003	Alabaha River	Hurricane Creek to Tan Trough Creek	Satilla	0.23	0.92	3N
GAR030702020405	Boggy Creek	Headwaters to Lake Lindsay Grace	Satilla	2.02 1.27	2.4 3.18	3N
GAR030702020504	Sixty Foot Branch	Headwaters to Otter Creek	Satilla	1.15	3.21	3N
GAR031102020404	Alapaha River	U.S. Hwy. 129/Ga. Hwy. 11 to Willacoochee River	Suwannee	3.07	6.8	3N
GAR031102030405	Bear Creek	0.3 miles upstream SR 7 to City of Adel Lake	Suwannee	2.25	4.27	3N
GAR031102030306	Beatty Branch	Headwaters to Cat Creek	Suwannee	4.05	4.27	3N
GAR031102040407	Flat Branch	Headwaters to Doe Branch	Suwannee	2.35	3.95	3N
GAR031102020308	Hat Creek	Unnamed tributary 980 feet upstream Bussey Rd to to unnamed tributary 100 feet upstream Robert Davis Rd	Suwannee	1.22	2.31	3N
GAR031102030413	Withlacoochee River	Bear Creek to Cat Creek	Suwannee	3.07 2.99	3.97 3.73	3N
GAR031102030503	Okapilco Creek	Little Creek to Rainy Creek	Suwannee	2.52	4.41	3N
GAR031102030603	Okapilco Creek	Rainy Creek to Mule Creek	Suwannee	3.73	5.74	3N
GAR031102030507	Tributary to Little Creek	Headwaters to Little Creek	Suwannee	0.51	4.21	3N
GAR031102010202	Tatum Creek	Dikerson Mill Pond (0.4 miles upstream Millpond Rd) to tributary at Fire Tower Road	Suwannee	2.09	3.9	3N
GAR031102010204	Tatum Creek	Tributary 0.3 miles upstream Tower Road to Dry Branch	Suwannee	2.5	3.42	3N

a – where multiple measured DO values are provided, this represents minimum measured values for each individual monitoring location.

There are forty-four (44) estuarine waters listed as assessment pending (Category 3) on the draft 305(b)/303(d) List. As mentioned in the response to the previous comment, 34 of those waters have a minimum DO above a DO saturation of 38%, which is considered natural. Ten of the waters were found to have minimum DOs below a DO saturation of 38%. Of these, six are considered blackwater. Eight of these waters are small tidal creeks fed only by groundwater and the minimum DOs measured was above a DO saturation of 30%. Groundwater typically has low DO levels and due to its influence in these small watersheds the measured DO is probably natural. An examination of groundwater influences on these small watersheds will need to be performed. There are also segments of the Satilla and St Marys Rivers with DO levels below a DO saturation of 38%. As rivers flow toward the ocean, the DO naturally drops, and as estuarine waters move landward, the DO naturally drops due to the organic load contribution from surrounding marshes. At the freshwater/salt water interface where the streamflow velocity go to

zero, and thus the natural DO is low. This segment of the river has been referred to as the “Big Dipper.” Additional data including barometric pressure, SOD, water velocity, and tidal level will need to be collected and/or evaluated to determine if these waters have naturally low DO. Since these waters are believed to have naturally low DO, these waters are being listed in Category 3N (see Table 9).

Table 9. Reassessment of Waters Assessed as Needing More Data on the Draft 2024 305(b)/303(d) List based on 38% DO Saturation

Reach ID	Reach Name	Reach Location	Basin	Measured Temperature (deg C)	Measured Specific Conductance (mS/cm)	Min Measured DO [a] (mg/L)	Calculated “Natural” DO (mg/L)	New Category After Reassessment of Data
GAR030602040307	Sterling Creek	Headwaters to the Ogeechee River	Ogeechee	20.72 26.97	131.5 24200	3.19 1.49	3.41 2.79	3N
GAR030702030219	Cedar Creek	Jointer Creek to St. Simons Sound	Satilla	28.5	45500	2.40	2.51	3N
GAR030702030301	Little Satilla River	Headwaters to Fancy Bluff Creek	Satilla	30.86	49900	2.28	2.37	3N
GAR030702030406	Satilla River	White Oak Creek to Baileys Cut	Satilla	30.26	4170	1.81	2.83	3N
GAR030702030310	Tributary to the Latham River	Headwaters to the Latham River	Satilla	27.63	43238	2.50	2.56	3N
GAR030702030309	Tributary to the Little Satilla River	Headwaters to Little Satilla River	Satilla	29.68	22330	0.33	2.68	3N
GAR030702011210	Tributary to Waverly Creek	Headwaters to Waverly Creek	Satilla	26.67	10254	2.32	3.80	3N
GAR030702030101	Turtle River	Headwaters to College Creek	Satilla	29.75	33800	2.54	2.57	3N
GAR030702040912	Catfish Creek	May Branch to the St. Marys River	St. Marys	27.71	108.7	2.80	2.99	3N
GAR030702040906	St. Marys River	Millers Branch to Burrells Creek	St. Marys	27.5	116	0.83	3.00	3N

a – where multiple measured DO values are provided, this represents minimum measured values for each individual monitoring location.

Table 10 provides a list of the waters that were not modeled, are not estuarine, and are not blackwater that have low DOs. Two (2) of these waters lack sufficient data to make an assessment and therefore they are being placed in Category 3. The other 34 waters are located throughout the state; however, based on visual observations seven of these streams color was noted as tannic. Visual observations regarding the presence of wetlands were made for fifteen waters, and observations regarding low flow, no velocity, and upstream impoundments were made for twelve waters. The majority of these waters were headwater streams with small drainage areas. EPD believes these waters have natural DO and therefore the waters are being placed in Category 3N. More information needs to be collected including TOC/DOC, streamflow, groundwater contribution, landuse, and reaeration to determine if low DO in these cases are impairments or if they are due to natural conditions.

Table 10. Reassessment of Waters Assessed as Needing More Data on the Draft 2024 305(b)/303(d) List

Reach ID	Reach Name	Reach Location	Basin	Drainage Area (square miles)	Min Measured DO (mg/L)	New Category After Reassessment of Data
GAR030601050101	Little River	Confluence of North & South Forks to Kettle Creek near Washington	Savannah	155	2.19	3N
GAR030601060311	Chicken Branch	Headwaters to Spirit Creek	Savannah	2.59	1.38	3N
GAR030601080505	Chandlers Branch	Headwaters to Sardis WPCP	Savannah	0.59	1.9	3N
GAR030601090107	Buck Creek	Headwaters to Sylvania WPCP	Savannah	3.22	2.14	3N
GAR030601090312	Pipe Makers Canal	Unnamed Tributary upstream of Dean Forest Road to the Savannah River	Savannah	~25	3.16	3N
GAR030601050213	Tributary to Upton Creek near Clarks Hill Lake	Headwaters to Upton Creek	Savannah		Lacks data	3
GAR030602010410	Tributary to Mason Branch	Headwaters to Manson Branch	Ogeechee	0.34	0.94	3N
GAR030602020308	Henderson Mill Branch	Headwaters to Julie Pond	Ogeechee	8.83	0.71	3N
GAR030701010410	Cedar Creek	Pond 1.3 miles upstream Joe Chandler Road to the North Oconee River	Oconee	6.12	1.64	3N
GAR030701020803	Rum Creek	Hobbs Lake to the Oconee River	Oconee	4.41	1.69	3N
GAR030701031307	Gladesville Creek	Headwaters to Little Falling Creek	Ocmulgee	5.87	0.3	3N
GAR030701031315	Falling Creek	Headwaters to Town Branch	Ocmulgee	8.64	0.13	3N
GAR030701040115	Cainey Branch	Lake Placid to Sandy Run Creek	Ocmulgee	5.38	0.48	3N
GAR030701040116	Bay Gall Creek	Pond 500 feet upstream Carl Vinson Pkwy to Sandy Run Creek	Ocmulgee	19.2	1.3	3N
GAR030701070408	Pendleton Creek	Headwaters to tributary 0.5 miles downstream U.S. 80	Altamaha	0.34	1.04	3N
GAR031101030202	Connell Creek	Headwaters to the Florida State Line	Ochlockonee	22.6	2.26	3N
GAR031102020104	Tributary to Reynolds Creek	Headwaters to Amaco Road	Suwannee	2.58	2.57	3N
GAR031102020609	Tributary to Turkey Branch	Tributary 300 feet upstream of W Cypress St to Turkey Branch	Suwannee	2.89	0.27	3N
GAR031102030206	New River (previously Westside Branch)	Headwaters to tributary 150 feet upstream of W Old Brookfield Rd, Tifton	Suwannee	4.19	2.32	3N
GAR031102030411	Tributary to Sugar Creek	Headwaters to Sugar Creek	Suwannee	0.31	1.9	3N
GAR031102040107	Lime Sink Creek	Headwaters to Daniels Creek	Suwannee		Lacks Data	3
GAR031200020203	Bay Pole Branch	Pond 400 feet upstream Bay Pole School Road to Bridge Creek	Ochlockonee	19.2	2.81	3N

Reach ID	Reach Name	Reach Location	Basin	Drainage Area (square miles)	Min Measured DO (mg/L)	New Category After Reassessment of Data
GAR031200020304	Tributary to Big Creek	Headwaters to Big Creek (in Coolidge)	Ochlockonee	3.11	1.12	3N
GAR031200020604	Oquina Creek	Headwaters to tributary 700 feet downstream of Cassidy Road	Ochlockonee	5.2	1.42	3N
GAR031200020706	Tributary to Parkers Mill Creek	Pond at headwaters to Parkers Mill Creek	Ochlockonee	0.9	1.3	3N
GAR031300021220	Tributary to Mulberry Creek	Headwaters to Oak View Home WPCP	Chattahoochee	0.0578	0.69	3N
GAR031300050217	Tar Creek	Wright Lake to Four Seasons Mobile Home Park	Flint	0.81	2.22	3N
GAR031300050219	Tributary to Pelham Creek	Lake Victor to Marnelle Mobile Home Estates	Flint	0.28	0.6	3N
GAR031300050406	Tributary to Birch Creek	Headwaters to Concord North WPCP	Flint	0.28	1.83	3N
GAR031300051410	Spring Creek (formerly Avera Creek)	Headwaters to Beaver Creek	Flint	1.39	1.47	3N
GAR031300060104	Spring Creek	Headwaters to Flint River near Montezuma	Flint	4.89	0.81	3N
GAR031300060302	Horsehead Creek	Headwaters to Hogcrawl Creek	Flint	21	2.49	3N
GAR031300060607	Spring Creek	Headwaters to Lake Blackshear	Flint	8.6	2.14	3N
GAR031501010314	Ketchum Branch	Headwaters to Coahula Creek	Coosa	0.32	0.12	3N
GAR031501010514	Beamer Creek	Headwaters to Polecat Creek	Coosa	1.62	1.99	3N
GAR060200010703	Little Chickamauga Creek	Headwaters to Coulter Creek	Tennessee	1.32	0.45	3N

Written Comments received after the comment period ended

Comment: A new impaired stream segment was added to the draft 2024 305(b)/303(d) list - GAR031300020344 - Little Anneewakee Creek (I-20 to Shawnee Lake). The impairment is for ammonia toxicity and algae. One of the "source" codes given for this impairment is "M," which is defined in the legend as a Municipal Point Source Discharge. There are not any publicly owned wastewater treatment plants on this stream segment, but there is a private wastewater treatment plant (Arbor Village mobile home park). If EPD believes this private wastewater facility is a source of impairment, the source code should be changed to reflect this.

Response: Arbor Village Mobile Home Park is a suspected source for the ammonia toxicity and algae impairments. The source code "M" stands for Municipal Point Source Discharges. EPD identifies potential sources at a high level. Potential sources are CSO (Combined Sewer Overflow), I1 (Industrial Point Source Discharge), I2 (Industrial Site Runoff), M (Municipal Point Source Discharge), NP (Nonpoint Source) and UR (Urban Runoff). EPD does not want to add any additional codes to differentiate between domestic wastewater discharges from Publicly Owned Treatment Plants versus privately owned plants. However, we did add a comment to the "Notes" column of the 305(b)/303(d) list of waters to clarify that the potential source of impairment for this stream segment is the Arbor Village mobile home park – NPDES Permit No. GA0031526. Specifically, the following statement was added to the Notes section. "The

potential source "M" for the ammonia toxicity and algae impairments refers to the discharge from the Arbor Village Mobile Home Park (NPDES permit GA0031526)."

Comment: GAR031300020201 - Gothards Creek (Headwaters to Sweetwater Creek) is a newly-listed segment under Category 3 (assessment pending), described as "Headwaters to Sweetwater Creek." It is on the list as being only in Douglas County. In fact, Gothards Creek also crosses into Paulding and Cobb Counties.

Response: Paulding and Cobb Counties have been added to the list of counties that the stream flows through.

Comment: The 2022 305(b)/303(d) list had a listing for GAR031300020333 - Anneewakee Creek (House Creek to Lake Monroe). In 2024, EPD revised the location description from "House Creek to Lake Monroe" to "Tributary 200 ft downstream Creekwood Drive to Lake Monroe" because the NHD coverage does not have a name for "House Creek." However, the 2024 305(b)/303(d) still list contains a listing for House Creek itself (GAR031300020334). Since USGS does not have a name for the stream, you may consider calling it "Arbor Branch (f/k/a House Creek)."

Response: EPD has updated the name for GAR031300020334 – "House Creek" to "Tributary to Anneewakee Creek - aka Arbor Creek (formerly House Creek)" on the 2024 305(b)/303(d) list. This renaming was done to reflect that NHD does not have a name for this stream, but it is locally known as Arbor Creek. EPD also updated the location information for GAR031300020333 – Annewakee Creek to include the locally known name "Arbor Creek." The new location information is "Tributary 200 ft downstream Creekwood Drive (aka Arbor Creek) to Lake Monroe."

Comment: GAR031300020333 - Anneewakee Creek (Tributary 200 ft downstream Creekwood Drive to Lake Monroe) has been listed as impaired for Bio F for some time. The stream location (Tributary 200 ft downstream Creekwood Drive to Lake Monroe) appears to be based on the USGS map, which shows both streams crossing Creekwood Drive before they converge. However, our local GIS mapping shows that the unnamed tributary and Anneewakee Creek converge before the combined stream crosses under Creekwood Drive (i.e., there is only one culvert under the road in this location). The confluence appears to be about 200' upstream of the road. Therefore, we recommend that you change the word "downstream" to "upstream" in the segment's description on the list.

Response: EPD did use USGS's National Hydrography Dataset (NHD) to develop the GIS coverage of the 305(b)/303(d) list including the coverage for Anneewakee Creek. It appears that the NHD coverage is not correct in this area, and EPD has redrawn the GIS coverage for GAR031300020333 - Anneewakee Creek and GAR031300020334 - Tributary to Anneewakee Creek - aka Arbor Creek (formerly House Creek) based on other maps. The location for GAR031300020333 - Anneewakee Creek was changed to "Tributary 200 ft upstream Creekwood Drive (aka Arbor Creek) to Lake Monroe."

Verbal Questions Received during the March 12th Public Meeting and Responses

Question: What determines whether *E. coli* or enterococci should be sampled?

Response: Chapter 391-3-6-.03 of the Rules and Regulations for Water Quality Control specifies that the bacteria criteria for Marine and estuarine waters is enterococci and the

bacteria criteria for all other waters is *E. coli*. Chapter 391-3-6-.03(3) of the Rules defines estuarine waters as waters on the coast of Georgia that have a salinity of 0.5 parts per thousand and greater.

Question: Is there any reason that fecal coliform bacteria should still be sampled?

Response: Fecal coliform bacteria is still sampled in areas designated as shellfish growing areas by Georgia's Coastal Resources Division because the National Shellfish Sanitation Program uses fecal coliform sampling to determine if shellfish are safe for human consumption.

Question: Will the sampling requirements after a sanitary sewer spill be changed to require E. coli sampling instead of fecal coliform sampling?

Response: EPD has begun the process to revise the spill regulations found in Chapter 391-3-6-.05 and we expect to start the stakeholder process in the coming months.