

Summary of Listing Decisions

The Georgia Environmental Protection Division (EPD) used its 2014 Listing Assessment Methodology in making its listing decisions. This document provides more detail to explain why certain listing decisions were made including (1) how the “natural conditions” provisions in our water quality standards are used when making listing decisions; (2) why certain waters were placed or remain in Category 3; (3) the listing of waters for objectionable algae and (4) removal of pollutants from some waters pending additional data and information.

Assessment of Waters Based on “Natural Water Quality”

Chapter 391-3-6-.03(7) of the Rules and Regulations for Water Quality Control recognizes that some waters of the State “naturally” will not meet the instream criteria and that this situation does not constitute a violation of water quality standards. Many waters in Georgia, specifically areas in South Georgia and near the Coast, have “natural” dissolved oxygen concentrations below the State’s standard dissolved oxygen (DO) criteria (daily average of 5.0 mg/l and an instantaneous minimum of 4.0 mg/l). Many of these waters were placed in Category 3 (Assessment Pending) when the DO criteria were not met, but it was determined that the cause was likely due to natural water quality conditions versus a human caused condition. The placement of waters in Category 3 for DO is explained in more detail in the next section.

EPD also considered things such as the presence of beaver dams when evaluating water quality data. While the presence of beaver dams and ponds can help improve water quality by trapping sediment and removing nutrients through increased plant production, the stagnant water in the beaver pond will naturally have different characteristics than a free flowing stream (e.g. lower DO). Waters were not listed as being impaired for DO if they were impacted by a beaver dam and it was determined that human activities were not contributing to the low DO.

In addition, Georgia has many blackwater streams. The pH of blackwater streams is naturally low. If a water has been identified as a blackwater stream, then it was not listed as impaired for pH as long as there are not point source or land use issues that may be contributing to the low pH measured in the stream.

Waters in Category 3 and Waters where Assessment of a Parameter is Pending

A water is 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. The 2014 list of waters has 103 waters in Category 3 and has an additional 62 waters

for which a use assessment has been made, but for which assessment of a single parameter is pending. Details regarding why a water has been placed in Category 3 or explaining what parameter may be in a pending status can be found in the “notes” column of the 305(b)/303(d) list of waters. The most common reasons for why waters have been placed in Category 3 are provided below.

Currently, Georgia’s listing assessment methodology states that waters with macroinvertebrate data with a narrative rank of “fair” are put in Category 3. One reason that this is the case is that EPD has been working to revise the indices used to assess macroinvertebrate data. We believe that for the most part, waters that were assessed as “supporting” under the current index (narrative rank of very good or good) will still be assessed as “supporting” under the revised index. Likewise, we believe that waters assessed as “not supporting” under the current index (narrative rank of poor or very poor) will still be assessed as “not supporting” under the revised index. We are less certain how waters ranked “fair” under the current index will rank once new indices are established. EPD has been working diligently to establish a new index system, but have been unable to complete the work as of this time. EPD plans to keep the waters with a narrative rank of “fair” in Category 3 until the new indices can be established. The draft 2014 305(b)/303(d) list of waters has 39 waters in Category 3 based on macroinvertebrate data that has a narrative rank of “fair”. There are an additional 15 waters that have been assessed for other parameters, but for which the assessment of macroinvertebrate data is pending.

Forty-four waters are in Category 3 while EPD works to determine the “natural DO” concentration for the water. There are an additional 33 waters that have been assessed as “not supporting” for other parameters for which the assessment of DO is pending determination of the “natural DO”. These waters are located in the Southeastern Plain and Coastal Plain where DO can be naturally below the State’s criteria of 5.0 mg/L (daily average) and 4.0 mg/L (minimum). EPD has been working to develop new DO criteria for the Southeastern and Coastal Plains. Some issues that are being studied are potential differences in DO between blackwater, clear water, and tidal streams and the impact of stream order on “natural DO”. Once the new criteria have been adopted and approved by U.S. EPA, EPD will use these criteria to assess whether waters in this portion of the State are meeting their criteria for dissolved oxygen.

Three waters are in Category 3 for pH. EPD intends to collect more data to confirm if the pH criteria are being violated. There are an additional eleven waters that have been assessed as “not supporting” for other parameters for which the assessment of pH is pending. In a few cases the data sets were too small to make a sound listing decision. In other cases, there is a question as to the accuracy of the pH data that were collected. Procedures have been put into place to confirm suspect data when excursions of the pH criteria are measured by EPD. Waters will be resampled to determine whether the data

collected was valid or if EPD may have been experiencing problems with its monitoring equipment.

There are various reasons why the remaining waters have been placed in Category 3. The most common reason was that while we had data that indicated that the water is “supporting” its use (such as fish tissue data, wastewater treatment plant effluent data, etc.), there is no instream water quality data available. Without having instream data, we decided to put the water in Category 3 instead of making the assessment that the waters were “supporting” their uses.

Listing of Waters for Objectionable Algae

While Georgia has numeric nutrient criteria for a number of its major reservoirs, we do not currently have numeric nutrient criteria for streams and rivers. In 2014, EPD began to use the narrative water quality criteria, found in Chapter 391-3-6-.03(5)(a) – (e) of the Rules and Regulations for Water Quality Control, to list waters that may be impaired by excessive nutrients. The violation provided for these waters is “objectionable algae”. A listing determination of “objectionable algae” was made for waters where field staff noted excessive algae, duckweed, or other aquatic plant life along with other factors including DO and pH measurements that indicate excessive photosynthetic activity and high nutrient levels in the water compared with other waters in the same river basin. Four waters were listed as impaired for objectionable algae on the draft 2014 list.

Removal of Some Pollutants Pending Additional Data and Information

DO was removed as a pollutant from three waters in the Savannah River Basin, one water in the Ogeechee River Basin, and six waters in the Satilla River Basin. The waters were moved to Category 3 for DO; although they may still be listed as impaired for another pollutant. These waters had originally been assessed as “not supporting” for DO on the 2006 305(b)/303(d) list. The 2006 list was developed prior to EPD’s development of the current listing assessment methodology which states that waters should be placed in Category 3 (Assessment Pending) for DO in areas of the State where low DO is likely a result of natural conditions. EPD is applying its current listing assessment methodology to these waters at this time and is removing DO as a pollutant pending determination of natural DO for these waters.

In addition, pH was removed as a pollutant from Mill Creek in the Tennessee River Basin and has been moved to Category 3 for pH pending the collection of additional data. The water is still listed as impaired for fecal coliform bacteria. The listing for pH was originally based on data collected in 2001. U.S. EPA conducted a study of pH in Mill Creek and three of its tributaries in 2013. Based on this study, EPD has determined

that it is probable that Mill Creek is not impaired by pH. However, due to the limited quantity of pH data collected, EPD has decided to collect additional pH data to confirm the results of the U.S. EPA study.

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